

The World's Leading Digital TV Industry Publication

since 1981

Read by
350000
PROFESSIONALS
Worldwide

Satellite & Cable
OTT & Smart TV
IPTV & WebTV
Streaming & OnDemand
Operator & Retail

TELE
audiovision

INTERNATIONAL **01-02**2014



Company Report

DVBViewer

Christian Hackbart is the Brains Behind one of the Most Successful TV Viewer Programs



Company Report

The MAY FAIR Hotel

Ivan Horrocks Proudly Shows Off the Amazing Success of GlobalInvacom's Fibre IRS with London's Celebrities

Test Report

PERFECTVISION

How to Have Fun With the Perfect Connectors



Test Report

FERNSEHSEE 2.0

Petra Bauersachs Gives TV Viewers the Best Experience With a Fantastic New Android Box



Test Report

DEVISER DS2400T

Jason Wu adds Many More Features to the Bestselling Meter



Test Report

MACAB catline

What a Great Idea:
Use Network Cable instead of Coax Cable



www.TELE-audiovision.com

Over a decade of experience in digital set top boxes

we have models for worldwide market



HDTS-271M

DVB-S2 + T2 HD MPEG-4 With CI/CA

- Full HD DVB-T2 & S2 Compliant
- CA slot (Optional) & CI slot (Optional)
- USB: Multimedia playback, PVR & Time shift
- HDMI 1.3/ HDCP 1.2 Copy protection
- Output: HDMI, Scart (Optional) CVBS, Y Pb Pr (Optional)
- Stereo Audio output, Coaxial, USB
- Earthnet Support (Optional)



DVB-T/T2 DVB-T2 With CI+ DTMB-TH ISDB ATSC DVB-S/S2 DVB-S2 + DVB-T/T2 DVB-C OTT BOX Hybrid Set Box

DVB-T2 MPEG-4

- DVB-T2 MPEG4 HD
- T2 1.31 profile, support with T2 LTE
- Multi Media Player for Music/Picture/Movie
- EWS System (Early Warning System)
- 3D Image player
- HDMI full HD 1080P output



HDT2-132A

DVB-C HD MPEG-4/H2.64 With CA

- CA Interface: NDS, Verimatrix, Novel Super TV, ABV, Suma Vision, etc.
- Mail: 1 Alert Setting: on/off the alert message. 2 View message
- AVM Setting audience view measurement On/Off in secure engineer menu
- Pairing STB and smartcard pairing Channel List view the channels
- OTA Over the air software download
- HDMI, CVBS, L/R, Coaxial, Ethernet(optional), USB



PCH208-B1

DVB-S2 SD MPEG-4/H.264 With CA

- DVB-S2 MPEG4 HD with CA
- DiseQC 2.0 compatible
- Multi Media Player for Music/Picture/Movie
- USB PVR
- HDMI full HD 1080P output
- CVBS, L/R, Coaxial, USB



SDS2-6381

OTT Android TV + DVB-T/T2 Combo

- OTT plus DVB-T/T2
- Android 4.0 / 4.2 / ARM Cortex A9 Dual Core 1.5GHz
- 1GB DDRIII SDRAM / 4GB NAND FLASH
- Built-in Wi-Fi module 802.11 b/g/n
- Online Live TV and VOD Flash/HLS
- HTML5 Playback and PlayReady/Widevine DRM
- Thousands of applications from network markets & specific sources



IV5010

Panodic Electric (ShenZhen) Limited

High Tech Office: 12/F, Greentech Building, Keji.C. Road 3rd Hi-Tech Industrial Park, Nanshan District, Shenzhen, P.R.China

Factory: C/D Block, Zhengchangda Ind. Park, Jian'an Road, Tangwei, Fu Yong, Baoan Dist., Shenzhen, China

Tel: +86-755-2977 3901/2977 3996 Fax: +86-755-8659 0225 Email: market@micoelectric.com

Panodic Electric (Hong Kong) Limited

Headquarter: Unit 1703A, 17/F, Nanyang Plaza, 57 Hung To Road, Kwun Tong, Kowloon, Hong Kong

Tel: +852 2951 4538 Fax: +852 2951 4738 Email: market@micoelectric.com

www.panodic.com



**TELE-audiovision
International**
The World's Largest
Digital TV Trade Magazine

since 1981

Alexander Wiese
Publisher

alex@tavmag.com
HQ in Munich, Germany

Dear Readers,

In this issue of TELE-audiovision we are introducing a number of surprising new developments. For example, we have a report on a product that lets you carry TV signals over a network cable. With that, all of the old ideas vanish, for example, the thought that if you're carrying TV signals, you'd better use the proper coax cable. This statement is no longer true; you can now use cable that was never meant to be used for that purpose. Another example is a miniature antenna that you can position any way you want to; we are introducing it here in a test report.

Yet another example is a filter that can reduce the potential errors in an SCR network to zero. These are all new products that go to show that beliefs that have been held for quite some time don't always last forever. And you can never be sure if some new development or new product opens up possibilities that had never even been considered before. Even something as common as "F" connectors can be surprisingly improved as you'll see in another test report in this issue of TELE-audiovision.

Even with digital TV receivers there's no end to innovative

creativity. You might think that everything that could have been invented has already been invented but as you'll see in this issue we're once again reporting on something uncommonly new: the automatic generation of channel lists based not only on your own viewing habits but also those of other viewers.

Will there ever be an end to surprising new developments? Not a chance. It will always be possible to build on something that already exists.

It's a never-ending process; every new idea leads to yet another new idea. There's no end to it and that means that TELE-audiovision will always have something new to introduce. There's no end in sight!

Alexander Wiese

Editor-in-Chief TELE-audiovision Magazine



Address TELE-audiovision Magazine, PO Box 1234, 85766 Munich-Ufg, GERMANY/EUROPE

Editor-in-Chief Alexander Wiese, alex@tavmag.com

Letter to The Editor www.TELE-audiovision.com/letter/

Published by TELE-audiovision Magazine GmbH, Aschheimer Weg 19, 85774 Munich-Ufg, GERMANY/EUROPE

Design Némethi Barna Attila

Advertising www.TELE-audiovision.com/ads/ or email to alex@tavmag.com

Hard Copy Subscription www.TELE-audiovision.com/subscription/

Hard Copy Subscription by Courier Service Send Order to subscription@tavmag.com

Printer Mesterprint Nyomda Kft., Vak Bottyán u. 30-32/B, 1191 Budapest, HUNGARY/EUROPE

Copyright © 2014 by TELE-audiovision **ISSN** 2195-5433

TELE-audiovision was established in 1981 and today is the oldest, largest and most-read digital tv trade magazine in the world. TELE-audiovision is seen by more than 350,000 digital tv professionals around the world and is available both in printed form and online.

www.TELE-audiovision.com

Redaktion TELE-audiovision, Postfach 1234, D-85766 München-Ufg

Chefredakteur Alexander Wiese (verantwortlich) Anschrift wie Verlag

Verlag TELE-audiovision Magazine GmbH, Aschheimer Weg 19, D-85774 Unterföhring

Inhaber: Alexander Wiese, Verleger, Unterföhring **Anzeigen** Alexander Wiese (verantwortlich), Anschrift wie Verlag

Abonnementverwaltung IPS Presseservice, Postfach 1211, D-53334 Meckenheim

Android IPTV AML8726

Full High Definition Android IPTV +DVB-S2 OTT STB



Processor

- ARM Cortex-A9 CPU uni-core, 1GHz frequency
- ARM Mali-400 GPU processor, for 3D Graphics processing
- One MediaCPU and Two MediaDSPs for AV decoding
- Full 1080P HD video decoding
- 3D Video Support
- Power Control Processor

Memory&Flash

- 1GB(32bit) DDR3 Memory
- 4MB SPI Nor Flash
- 4GB Nand Flash internal

Network

- WiFi IEEE 802.11 b/g/n
- 10/100Mbps Fast Ethernet
- 3G USB Dongle

DVB Frontend(Optional)

- DVB-S2 Supported
- Customized for other STB application

Other

- HDMI 1.4a
- 2 Host USB Ports
- OS Android4.0 or Later
- Multi languages supported
- Support USB Keyboard&Mouse, Wireless Keyboard&Mouse&RCU

Applications

- Video Movie Player(*.mkv, *.wmv, *.mpg, *.mpeg, *.dat, *.avi, *.mov, *.iso, *.mp4, *.rm etc.)

- Music Player(MP3, AAC, WMA, RM, LFAC, Ogg etc.)
- Picture viewer (JPG, JPEG, BMP, GIF, PNG etc.)
- Web Browser (HTML5 supported)
- Online VOD application
- Customized application market
- Customized applications
- Online video search
- 3D Game



HD1512 DVB-S2

- IPTV
- USB Adapter
- 3G Support
- WIFI Support
- Movie Online
- Smartphone Remote
- RSS News
- Dailymotion
- DVB-S2 Tuner
- HDMI1.3, FULL-HD 1080P supported
- PVR (Personal Video Record)
- HD Media Player

- Picture Player
- Music Player
- File Manager
- Firmware Upgrade via USB
- EBOOK
- ISO
- Youtube, Weather, Google map, N32 game
- Built-in LAN
- With CA
- Recording & Playback with External Storage Devices(USB2.0 / HDD)
- 2 USB



You can meet us at the above shows in 2013.

Sowell • Digital Your Life

NEW!**AMIKO**

MINI SERIES

Full HD Compact Digital Receivers & Media Players
with Card Reader & Ethernet Connection

MINI HD SE SATELLITE

**Full HD
1080**

MINI HD T2/C T2 TERRESTRIAL / CABLE

**DC 12V****FAST SCAN
EASY INSTALLATION**

MINI COMBO

SATELLITE + T2 TERRESTRIAL / CABLE

BLIND SCAN

MAIN FEATURES:

- One card reader slot (Conax Embedded)
- Compact design
- Satellite Blind-Scan function (Excluding MiniHD T2/C model)
- Internal & External Infra-Red RCU Sensors
- Easily mountable on TV or wall (sticker included in the package)
- High Speed USB 2.0 connections
- Media Playback (MKV, AVI, MPG, MP3, MP4, JPG and more...)
- Ethernet Connection & USB WiFi support (Ralink RT5370 chip)
- YouTube videos, Google Maps
- RSS Reader & Weather Forecast functions
- TimeShift - Stop Live TV! (USB Storage device required)



audio and video codecs are subjects to availability**

- Program and Channel information transfer from receiver to receiver using the USB backup function
- Multi Satellite - DiSEqC 1.0 / 1.1 / 1.2 & USALS
- Full HD (1080p) Output via HDMI
- Easy software upgrades through USB, Network & OTA
- External 12V DC power supply
- Low power consumption in Stand-By mode



MiniHD SE

Mini Combo

Mini T2/C



Size DOES Matter!

BREAKING NEWS!

Stay Tuned for Live Reports In This TELE-audiovision Iss

Test Report
PERFECTVISION
Little Rock, AR, USA

Test Report
FERNSEHFEE
Koblenz, Germany

Company Report
DVBViewer
Erfurt, Germany

Company Report
TIGERTECH
Los Angeles, CA, USA

Company Report
May Fair Hotel
London, UK

Test Report
SPAUN
Singen, Germany

DXer Report
Flavio Pairol
São José dos Campos (SP),
Brazil

Feature
VITOR'S WORKSHOP
Ermesinde, Portugal

01-02/2014

The World's Largest Digital TV Trade Magazine
since 1991
TELE
audiovision
INTERNATIONAL
Satellite
Smart TV
IP/WebTV
Streaming

**All Reports in TELE-audiovision
are Original and Exclusive!**

from Around the World!

sue We Report Directly From

Test Report
MACAB
Trelleborg, Sweden

Test Report
DEVISER
Tianjin, China

Test Report
YAGI
Tokyo, Japan

Test Report
SKYWORTH
Shenzhen, China

Read TELE-audiovision Magazine 01-02/2014
on Laptop, Tablet or Smartphone for FREE here:

www.tavmag.com/14/01

Company Reports are written by TELE-audiovision's editorial staff on location
Test Reports are written by TELE-audiovision's engineering staff located at
different strategic reception points around the world



SKYWORTH HS1H014
Twin Tuner Satellite Receiver
with PVR Function 18



MACAB CATLINE TVB-02
TV to RJ-45 Filter and Amplifier
with Equalizer 32



FERNSEHFE 2.0
Satellite Receiver with
Ad Blocker 48



FLEMO BY YAGI
UHF Terrestrial
Antenna 64



DEVISER DS2400T
Professional
DVB-T2
Signal Meter..... 72



SPAUN SMA 8 F
Filter for SCR
Distribution System 78

**PERFECTVISION'S "F" CONNECTORS,
PV100 & VT200 COMPRESSION TOOLS**



F Connectors for
Coax Cable and
Professional
Hand
Compressors 84

**Global Readership of
TELE-audiovision Magazine..... 12**

AWARD Winning:
Digital Receivers of 21st Century 94

AWARD Winning:
Signal Analyzers of 21st Century 104

AWARD Winning:
IPTV/WebTV Receivers
of 21st Century 112

AWARD Winning:
The Best Cable TV Equipment
of 21st Century 118

Digital Technology:
New Developments 124

Vitor's Workshop:
Multi Satellite Reception with
4 Antennas – Perfectly Hidden..... 130



Vitor's Workshop 130



DVBViewer 144



The MAY FAIR Hotel..... 154



TigerTech 172

Vitor's Workshop Overview:
How to get the Most
Out of Technology..... 142

Company Report:
PC Card Software from
DVBViewer, Germany 144

Company Report:
Fibre Optic/Coax Hybrid TV Installation,
May Fair Hotel, London..... 154

Company Report:
Logistics and Satellite Products Provider,
TigerTech, USA..... 172

Global Company Directory:
The Decision Makers in
Worldwide Digital TV Industry 180

DXer Report:
Satellite DXer Flavio Pairol, Brazil 190

Satellite DXer Overview:
Hall of Fame of Satellite
Enthusiasts of the World..... 200

Uplink Overview:
Best Satellite Uplink
Earth Stations 208

TELE-audiovision History:
TELE-audiovision in 1983..... 218

TELE-audiovision History:
TELE-audiovision in 1993..... 220

TELE-audiovision History:
TELE-audiovision in 2003..... 222

CHANGHONG

Professional in STB

CREATING EASY LIFE



Smart Center Box

- Android 2.2, 1080P HD
- Multi-screen interaction
- Content sharing with Pad, phone, STB
- Multi-media player
- 3D somatic games
- HTML 5 browser
- IP camera
- Smart remote control
- Changhong APP store



Products & Technologies

- DVB-C/T/S/C2/T2/S2, ISDB-T, IPTV
- Conax/Nagra/Irdeto/NDS
- MHEG-5/OpenTV/NDS Core/MHP
- Android/OS21/Linux/μ_iTron
- OTT/HBBTV/CATCH UP TV/UNICABLE

Company Profile

Established in 1998, Sichuan Changhong Network Technologies Co.,Ltd is now one of the largest professional STB suppliers in China. With the experienced R&D team and qualified project management, Changhong Network provides the consumers with leading products and technical solutions...



MHEG-5



openTV



NDS Core



m@p

SICHUAN CHANGHONG NETWORK TECHNOLOGIES CO.,LTD

ADD:35,East Mianxing Road,High-tech Park,Mianyang,Sichuan,China

Tel:0086-816-2410305 Fax:0086-816-2417040 Zipcode:621000

Http://www.changhong-network.com

E-mail:stbinfo@changhong.com

ABCOM	Slovakia	67	JIUZHOU	China	228
ALUOSAT	China	103	JEZETEK	China	228
AMIKOSTB.....	Hungary	5	JONSA	Taiwan	51
ASIATVRO	China	207	LIANXING	China	83
AUDOLICI	Portugal	139	MACAB	Sweden	179
AZBOX.....	Portugal	227	MFC	USA	81
AZURESHINE.....	Taiwan	29	MICO	China	2
B-MAGA.....	Japan	167	MKTECH	China	75
BSD	Brazil	183, 213	NABSHOW2014	USA	149
CABSAT2014	Dubai	165	PANODIC	China	2
CCBN2014	China	163	PERFECTVISION	USA	27
CES2015.....	USA	141	ROHDE&SCHWARZ	Germany	25
CHANGHONG.....	China	9	SATBEAMS.....	Belgium	197
CHINABROADCASTING	China	193	SATELLITEGUYS	USA	185
CONVERGENCEINDIA2014	India	161	SAT-LINK	China	59
COSMOSAT	Argentina	135	SCATINDIA2014.....	India	153
CSTB2014.....	Russia	147	SES.....	Luxembourg	171
DEVISER	China	87, 177	SICHUANJIUZHOU.....	China	228
DEKTEC	Netherlands	91	SKYWORTH	China	11
DEXIN	China	61	SOWELL.....	China	4
DIGITALTELEMEDIA	China	228	SPAUN	Germany	179, 183, 207
DISHPOINTER.....	UK	213	SPAUN ELECTRONIC	Germany	71
DISHTUNING.....	India	197	TEKNIKSAT	Turkey	177
FTATV.....	Argentina	193	TENOW.....	China	185
GLOBALINVACOM.....	UK	21	TIANDITONG.....	China	35
HORIZON	UK	45, 117	TSINGHWA.....	China	89
HTCE	Hongkong	227	TURBOSAT.....	UK	37
ICECRYPT.....	UK	37	WORK MICROWAVE	Germany	55

TELE-audiovision Magazine Sells!

Leading Digital TV Equipment Manufacturers continuously choose **TELE-audiovision Magazine** to market their products most successfully on a global scale

TELE-audiovision Magazine is the #1 Global Digital TV Trade Publication for 33 years - and we continue to expand!

TELE-audiovision Magazine is seen by

- Digital TV Manufacturers
- Distributors
- Dealers
- Wholesalers
- Installers
- End Consumers
- Program Providers

Read Worldwide in
More Than **180 Countries**

Are you interested in finding out more about what
TELE-audiovision can do for you? Then contact us:

www.TELE-audiovision.com/ads

Specifiction:

System: Basic on Android 4.0 ICS
 OSD: 3D Graphical User Interface(Support OpenGL ES2.0)
 DVBS/DVBS2 Demodulator
 Mpeg2,Mpeg4(H.264) decoder ,fully DVBS&DVBS2 compliant
 Storage 8000 TV and Radio programs
 Video codec: H.264(MPEG4-AVC, VC-1), MPEG2, DviX3/4/5/6,Xvid
 Audio codec: MP3, AAC, OGG, MPEG, MPEG Audio, Dolby AC-3
 Container : MP4, AVI, MKV, FLV, MPEG TS
 DLNA 1.5 compliant
 Networking-WIFI AP,Ethernet



Feature:

Multi-Screen shifting (DLNA and AIRPLAY Alike)	Motion sensing games
OTT (Over the top)	Powerful Media
Android Market	OTA(over the air)
Web Browser	2.4G wireless interface
Twitter, Facebook,YouTube...	Support 3D and 3D convert 2D function



HS1J

- Video decode: MPEG2 SD, MPEG2 HD, H.264/AVC SD, H.264/AVC HD,MP4
- Interface: Single Cplus, SCART,dual USB2.0,LNB ,HDMI,RCA, Digital Audio, Ethernet
- Video Resolution: 480i/p, 576i/p, 720i/p, 1080i/p
- Function : Manual/Auto search, Edit Channel, EPG, Subtitle,TXT, PVR , RSS, Weather Forecast ,Youtube ,Game,32 FAV group, Media player;
- Language:English, French, German, Italian, Spanish, Portuguese, Russian, Turkish, Arabic, Polish etc



HS1C

- Pluggable tuner,support S2+S2/S2+T2/S2+C tuner
- Video decode:MPEG2 HD/SD H.264/AVC HD/SD
- Output interface:Single CI plus,,dual USB2.0, HDMI,SPDIF,YPbPr/SCART
- Features:
- youtube,google map,picasa,Weather Forecast, RSS,Fastscan search,PVR
- Support WIFI



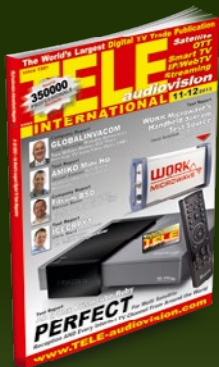
HTAB

- Video decode :MPEG2 SD, MPEG2 HD, H.264/AVC SD, H.264/AVC HD
- Output Interface : HDMI ,SPDIF, USB,SCART
- Video Resolution : Full HD 1080P, 1080i
- DVB Function : Manual search, Edit Channel, EPG, Subtitle, TXT, PVR,Media player



HTJ4

- SD MPEG-2/HD H.264 & fully DVB-T compliant,
- Output Interface: HDMI,Scart ,SPDIF
- Video Resolution : Full HD 1080P,
- Function : Manual search, Edit Channel, EPG,
- Subtitle, TXT, PVR
- Wifi(option):RSS Reader, Weather Forecast ,maps,
- Picasa,Google ,Youtube ,Youporn,Vimeo,etc



> 350 000



Professional Readers Worldwide

本杂志全球有35万多读者

America

Europe

North America
>28000 Readers

USA
Canada
Mexico

South America
>42000 Readers

Brasil
Argentina
Chile
Venezuela
Colombia
Peru

West Europe
>107000 Readers

Germany
Italy
UK
France
NL
Portugal
Belgium
Spain
CH
Austria
Sweden
Norway
Ireland
Denmark

MENA
>46000 Readers

Iran
Algeria
Morocco
Egypt
KSA
Tunisia

East Europe
>60000 Readers

Turkey
Romania
Russia
Hungary
Poland
Bulgaria
Czech
Greece

The Only
Global Digital TV Trade Magazine

Published in
20 Languages



Arabic
العربية



Bahasa
Indonesia



Bulgarian
български



Czech
český



German
deutsch



English



Spanish
español



Farsi
فارسی



French
française



Hebrew
עברית



Croatian
hrvatski



Italian
italiano



Hungarian
magyar



Chinese
中

Worldwide

Asia



Top 25 Countries > 3200 Readers

COUNTRY	Readers #
Brazil	35,061
Germany	26,053
USA	21,418
China	14,695
Italy	13,601
France	12,327
UK	11,588
Iran	11,001
Algeria	9,642
Indonesia	9,565
Turkey	9,319
Netherlands	8,513
Portugal	7,916
Romania	7,477
Russia	6,104
Spain	6,028
Morocco	5,798
Belgium	5,787
Bulgaria	4,999
Poland	4,778
Egypt	4,774
Hungary	4,701
India	4,371
Canada	3,902
Greece	3,861
Czech	3,705
KSA	3,700
Ukraine	3,518
Argentina	3,289

Readers' Breakdown

Manufacturers	5%
Distributors	10%
Wholesaler	18%
Dealers	27%
Installers	10%
Satellite Provider	2%
Cable Provider	9%
IPTV Provider	6%
Program Provider	7%
Governmental	2%
Institutional	2%
Private Enthusiasts	2%

Top 25 to 105 Countries > 130 - 3200 Readers

COUNTRY	Readers #
Chile	2,957
Switzerland	2,947
Tunisia	2,831
Slovakia	2,746
Pakistan	2,559
Austria	2,525
Croatia	2,484
Venezuela	2,306
Iraq	2,246
Malaysia	2,181
Sweden	2,137
Australia	2,010
Israel	1,892
Norway	1,849
Serbia	1,797
Mexico	1,698
Colombia	1,627
South Africa	1,541
United Arab Emirates	1,463
Ireland	1,426
Denmark	1,304
Thailand	1,205
Libya	1,178
Finland	1,152
Peru	989
Slovenia	975
Sri Lanka	953
Philippines	935
Yemen	886
Jordan	853
Ecuador	766
Lithuania	765
Lebanon	732
Uruguay	721
Nigeria	710
Syria	686
South Korea	680
Japan	650
Macedonia	647
Bosnia and Herzegovina	631
Sudan	599
Bolivia	598
Albania	588
Kenya	573
Taiwan	563
Puerto Rico	550
Kuwait	517
Panama	495
Qatar	482
Cyprus	467
Hong Kong	466
Latvia	465
Luxembourg	462
Paraguay	447
Senegal	423
New Zealand	394
Belarus	387
Oman	384
Kazakhstan	383
Moldova	373
Georgia	364
Vietnam	308
Estonia	292
Singapore	287
Mauritius	280
Ivory Coast	274
Bahrain	267
Dominican Republic	240
Ghana	240
Palestine	236
Costa Rica	235
Iceland	208
Uganda	198
Ethiopia	194
Malta	181
Suriname	179
Cameroon	173
Bangladesh	171
Afghanistan	158
Uzbekistan	156
Zimbabwe	156
Azerbaijan	154
Tanzania	143
Barbados	142

Top 106 to 180 Countries < 130 Readers

COUNTRY	Readers #
Mali	140
Trinidad and Tobago	134
Brunei	133
Montenegro	114
Macau	109
Armenia	104
Botswana	102
Myanmar	101
Malawi	101
Mauritania	95
Martinique	94
Maldives	89
Aruba	86
Netherlands Antilles	84
Madagascar	84
New Caledonia	83
Angola	78
Namibia	78
Rwanda	78
Mozambique	67
Zambia	67
Congo	65
Guatemala	65
Guyana	65
Haiti	63
Kyrgyzstan	61
Burkina Faso	59
Niger	59
French Guiana	58
Cape Verde	55
Reunion	54
Benin	53
French Polynesia	52
Togo	51
Jamaica	48
Cuba	47
Honduras	45
Djibouti	43
El Salvador	42
Turkmenistan	42
Gabon	41
Greenland	41
Nicaragua	41
Tajikistan	37
Guadeloupe	34
Cambodia	34
Kosovo	34
Comoros	31
Seychelles	29
Monaco	28
Dominica	26
Congo [Republic]	24
Mongolia	24
Palau	24
Nepal	23
Bermuda	22
Bahamas	21
Gambia	20
Timor-Leste	19
Laos	18
Somalia	17
Burundi	16
Curacao	16
Fiji	14
Papua New Guinea	13
Belize	12
Guinea	12
Faroe Islands	11
Guernsey	10
Anguilla	9
Swaziland	9
British Virgin Islands	9
Central African Republic	8
Equatorial Guinea	8
Jersey	8
Cayman Islands	8
Liechtenstein	8

Source:
Google Analytics
as of 09-10/2013

TELE
audiovision

有关数字电视行业的世界上发行量最大的杂志
杂志创刊于1981年,现为数字电视产品领域内全球发行量最大的杂志

Global DIGITAL TV Magazine



DEU

USA

ITA

ENG

ESP

BRA

IND

FRA

CHI

ARA

RUS

ALG



测试报告关于创新的数字电视产品
概述世界上最好的数字电视公司



公司报导关于顶尖的数字电视设备制造商,
分销商,代理商,批发商以及安装者

www.TELE-audiovision.com

Let's Meet

and discuss how TELE-audiovision Magazine
can help increase your global business

Meet TELE-audiovision Founder
and Publisher Alexander Wiese
in person at these
next great industry
meetings:

CES 2014 Las Vegas
CABSAT 2014 Dubai
CCBN 2014 Beijing

To arrange a meeting
send Email to:
alex@tavmag.com



34 Years of
Publishing
TELE-audiovision
Magazine

INNOVATION

PRODUCTS LEADING INTO



INNOVATION
TELE
audiovision
AWARD
11-12/2013

AB IPBox Prismcube Ruby

Perfectly equipped receiver for multi satellite reception as well as for Internet TV reception from around the world

www.TELE-audiovision.com/13/11/abipbox



INNOVATION
TELE
audiovision
AWARD
11-12/2012

JIUZHOU DTP2100

Cutting-edge receiver thanks to Android operating system

www.TELE-audiovision.com/12/11/jiuzhou



INNOVATION
TELE
audiovision
AWARD
02-03/2012

AZBox ME
Today's absolute best Linux Receiver

www.TELE-audiovision.com/12/03/azbox-me



AWARD

THE FUTURE

INNOVATION
TELE
audiovision
AWARD MAGAZINE



INNOVATION
TELE
audiovision
AWARD 08-09/2009

GLOBAL INVACOM OPTICAL LNB
The first worldwide optical satellite
reception and transmission system

www.TELE-audiovision.com/09/09/globalinvacom




INNOVATION
TELE
audiovision
AWARD 07-08/2013

TBS Streaming Box MOI
Offers a double-shot of innovation for the
future of TV with its channel streaming and
separation of hardware and software

www.TELE-audiovision.com/13/07/tenow



INNOVATION
TELE
audiovision
AWARD 01-02/2014

Macab Catline TVB-02
Clever solution to use network cables
to distribute TV signals

www.TELE-audiovision.com/14/01/macab



Skyworth HS1H014



- **Very fast channel switching times**
- **Fast Blindscan finds new channels on its own**
- **Timer can be started directly from the EPG**
- **PVR can record two individual channels at the same time**



Satellite Receiver for Every Situation



At 25.5 x 17.5 x 4.5cm the new Skyworth HS1H014 is nice and small and will easily find a place near your TV. The front side is highlighted by its elegant design and extremely easy-to-read VFD display. A total of eight buttons to control the receiver without a remote control were included by the manufacturer in such a way that

they are not in the way.

Behind a flap there's an internal card reader for those with a PayTV SmartCard and also a CI slot that is compatible with all the typical modules.

The rear panel consists of two tuner inputs along with their corresponding looped-through outputs, an HDMI jack, two RCA jacks for stereo

audio, an RS-232 interface, two USB interfaces, an RJ-45 network port, an optical digital audio output as well as a main power switch. The buttons on the lower portion of the remote control are bunched somewhat close together making it a little harder to use.

After turning on the receiver for the first time, the user lands in the Main menu and cannot exit until a successful channel scan has been performed. Since this is a twin tuner receiver the very first thing to do is determine if both tuners will be fed with the same signal or if it will be two entirely different signals. In other words, will the satellite signal be looped through from the output of tuner #1 to the input of tuner #2?

A total of 43 European and

Asian satellites along with the associated transponder data has been preprogrammed into the receiver by Skyworth.

Unfortunately, this list is somewhat out-of-date. But this really isn't a problem at all; additional satellite entries can be manually added. The most often used LO values are already preprogrammed such that LNBs for the C-band and Ku-band as well as SCR LNBs can all be used. We were happy to see that the DiSEqC protocols were integrated in the receiver including the DiSEqC 1.2 and 1.3 motor control protocols.

As far as channel scanning goes, the new Skyworth HS1H014 offers an automatic scan of one or more satellites as well as a manual transponder scan. In all three of these modes the scan can be limited to freely receivable TV or radio channels.

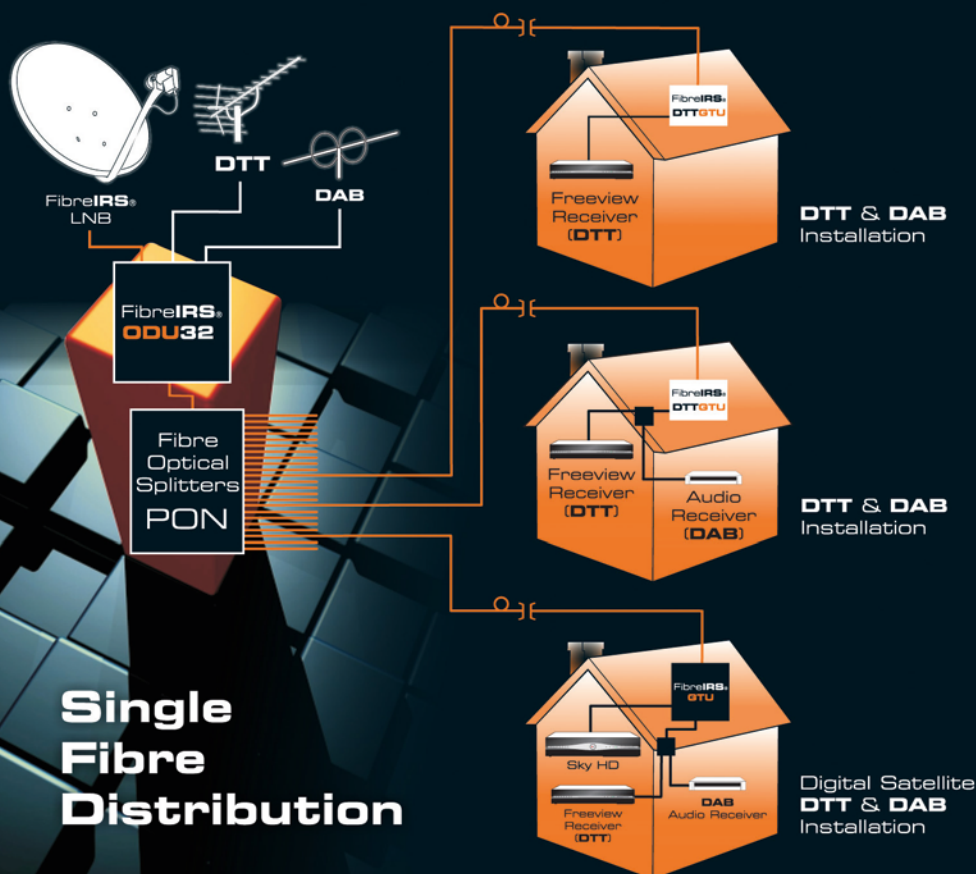
A regular scan of HOTBIRD at 13° east needed about five minutes to complete and yielded 1502 TV and 471 ra-





The New Generation Fibre Integrated Reception System

The only cost effective solution for distributing
**Satellite IF, DTT and DAB over a
Single Fibre Optic Network.**



- Compatible with all digital satellite STBs
- Compatible with all DTT/Freeview™ STBs
- Compatible with all DAB Tuners
- Can be easily expanded to **256** points
- Simple installation* via 'Plug & Play' technology
- Ideal for short or long cable runs.

*Compared with existing Fibre Systems

**Single
Fibre
Distribution**



dio channels. In contrast the BlindScan of the same satellite was finished in six minutes and ten seconds and outperformed the regular scan by finding 1589 TV and 504 radio channels.

With so many channels scattered all over the channel list in no particular order, as a user you'd like to be able to bring some order to this chaos and confusion. The Skyworth HS1H014 comes with numerous capabilities to do just that; the channel list entries can be deleted, moved, renamed, locked out with a PIN code or relocated to one of the 32 Favorites lists. The sorting function turned out to be quite practical here as well; channels can be sorted alphabetically, by CAS/FTA or by locked/not locked.

The HS1H014 can present the output signal in 480i, 480p, 576i, 576p, 720p 50Hz, 720p 60Hz, 1080i 50Hz, 1080i 60Hz, 1080p 50Hz, 1080p 60Hz and an automatic mode that adjusts itself to the maximum possible resolution of the attached TV.

As is now common with almost every modern satellite receiver, the HS1H014 also comes with a network interface that, when connected to a local router, can provide Internet access to the receiver. The necessary IP data can be entered manually by the user or be recognized automatically via DHCP.

The new Skyworth HS1H014's on-screen display (OSD) presents itself as being very well organized and well thought out. The Info bar that appears momentarily after every channel change shows the title of the current and upcoming programs. If desired additional EPG information is also available. The full EPG display was a real pleasure; it can

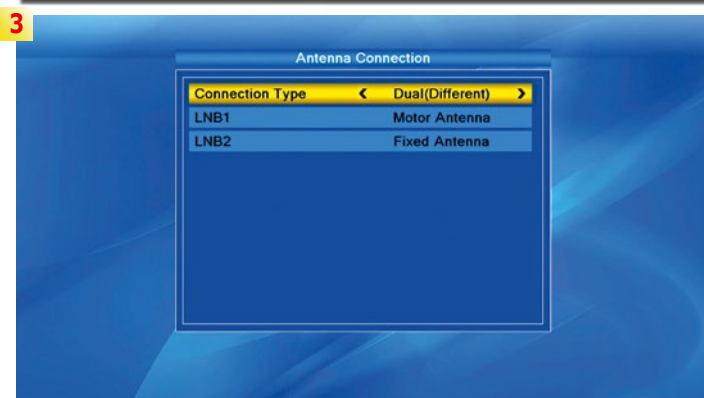
show the data from a single channel or from a group of five channels in grid format. Since this is a PVR receiver we naturally had to test and see if timer entries could be programmed directly from the EPG; this is something that for us is an absolute must-have. There are eight timer slots available and a daily repeat recording is also possible.

A push of the OK button activates the channel list. It offers not only the ability to group by provider, HDTV or specific encryption system, thanks to dedicated function buttons on the remote control you can also very easily limit the channel display to individual satellites or Favorites groups.

During everyday use the new Skyworth box shines with its speedy channel switching times of less than a second and its very sensitive tuner that could easily handle weaker signals like those on ABS1 at 75° east as well as SCPC channels like RASDTV on INTELSAT 14 at 45° west with a symbolrate of 1.852 Ms/sec.

The HS1H014's PVR fea-

1. The Skyworth HS1H014's Main menu
2. Antenna Settings
3. Both of the HS1H014's tuners can be operated in different modes
4. The HS1H014's satellite list. Only those marked with a heart will appear later on in the receiver's menu entries
5. DiSEqC 1.3 settings
6. LOF settings
7. Scan of a satellite with the help of the preprogrammed transponder data
8. BlindScan of a satellite
9. Regular scan of HOTBIRD at 13° east
10. BlindScan of HOTBIRD at 13° east
11. 1589 TV and 504 radio channels were found by the BlindScan
12. The channel list can be edited in many different ways
13. Renaming a channel
14. System settings
15. OSD Language selection



6

Antenna Setup

Tuner	LNB1(Motor)
LNB Freq	Universal(9750-10600)
Motor Type	Universal(9750-10700)
Local Longitude	Universal(9750-10750)
Local Latitude	Universal(9750-10750)
Delete All	Unicable(9750-10600)
Motor Setting	Unicable(10200)
Limit setup	

11

Blind Scan

TV Channel	1589	Radio Channel	504
\$Primafile 26		Novita' Sky	
\$Primafile 27		Novita' Sky	
\$goal Alert HD		Fusion FGDL	
\$MAN-GA			
\$JimJam			

Search End

Yes

94	Hot Bird 6			
95	Hot Bird 6			
96	Hot Bird 6			
97	Hot Bird 6	12673	V 29900	... OK
98	Hot Bird 6	12713	V 29900	... OK

100%

7

Single Satellite Search

Satellite	(1/20) Atlantic Bird 3
FTA Only	No
Scan Channel	TV + Radio
Network Search	No
Scan Mode	Preset Scan
Tuner	
Search	

12

TV Channel List

Hot Bird 6

FAV	Lock	Skip	Move	Edit
1518	\$Fox +1			
1519	\$Fox +2			
1520	\$Fox Crime +2			
1521	\$Fox Life +2			
1522	\$History +1			
1523	\$NationalGeo +1			
1524	\$JimJam +1			
1525	Nuvolari			
1526	\$Fox Life +1			
1527	\$Fox Crime +1			

Hot Bird 6
Nuvolari
10854/H/29897
PID: 3116/3117/3116

8

Single Satellite Search

Satellite	(1/20) Atlantic Bird 3
FTA Only	No
Scan Channel	TV + Radio
Network Search	No
Scan Mode	Blind Scan
Tuner	
Search	

13

Edit Channel

Hot Bird 6

Sort	Rename
1518	\$Fox +1
1519	\$Fox +2
1520	\$Fox Crime +2
1521	\$Fox Life +2
1522	\$History +1
1523	\$NationalGeo +1
1524	\$JimJam +1
1525	Nuvolari
1526	\$Fox Life +1
1527	\$Fox Crime +1

Rename

Nuvolari

A	B	C	D	E	F	G	H	I
J	K	L	M	N	O	P	Q	R
S	T	U	V	W	X	Y	Z	a
b	c	d	e	f	g	h	i	j
k	l	m	n	o	p	q	r	s
t	u	v	w	x	y	z	0	1
2	3	4	5	6	7	8	9	SP
.	!	~	^	&	*	+	=	-

1/11 DEL OK

9

Preset Scan

TV Channel	206	Radio Channel	79
Rossiya 24		Chanson	
TRT Turk		Radio 2M	
AZTV		Chaine 2	
Al Jazeera Intl		Chaine 3	
SHANT TV		AZTV Radio	

12	Hot Bird 6	10971	H 29700	... OK
13	Hot Bird 6	10992	V 27500	... OK
14	Hot Bird 6	11013	H 27500	... OK
15	Hot Bird 6	11034	V 27500	... OK
16	Hot Bird 6	11054	H 27500	...

16%

14

Main Menu

System Setup

- Language
- TV System
- Display Setting
- Local Time Setting
- Timer Setting
- Parental Lock

10

Blind Scan

TV Channel	107	Radio Channel	49
\$testServiceM3_3		\$novasport FM	
\$novacinema4		\$NOVA SCOPE	
\$Travel Channel		Eepg	
\$nova MAD GREEKZ		Ch-7581	
\$novacinema4 Cy		Ch-7582	

2	Hot Bird 6	10775	H 29896	... OK
3	Hot Bird 6	10815	H 27500	... OK
4	Hot Bird 6	10854	H 29897	... OK
5	Hot Bird 6	10892	H 27500	... OK
6	Hot Bird 6	10930	H 29896	...

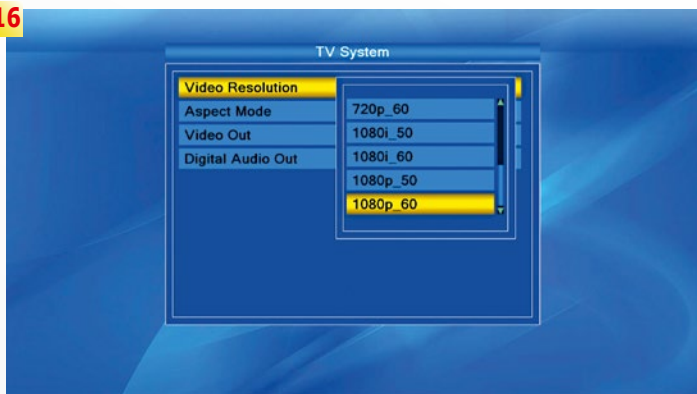
4%

15

Language

Language	English
First Audio	Français
Second Audio	Deutsch
Teletext	Italiano
	Español
	Português

16



16. Video output signal resolution

17. Selecting the aspect ratio

18. OSD settings

19. Setting the time

20. Setting up a timer entry

21. The Skyworth HS1H014's child protection

22. Firmware upgrade via USB stick

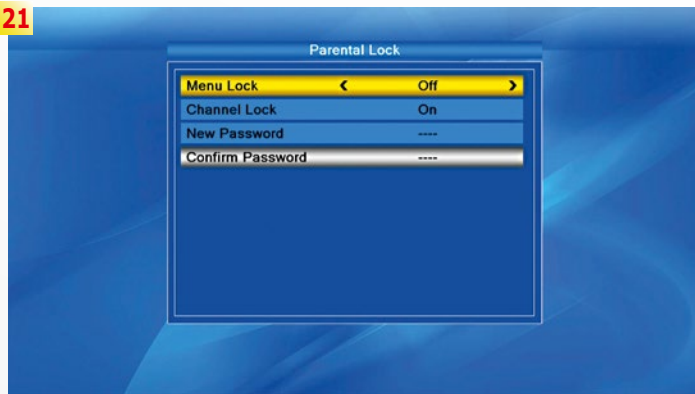
23. Network settings

24. Firmware upgrade via network

17



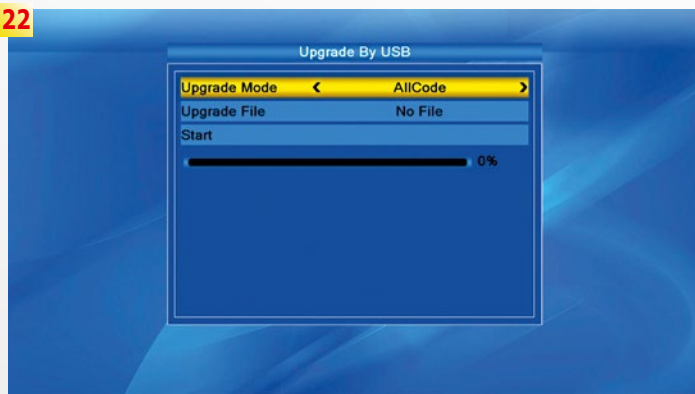
21



18



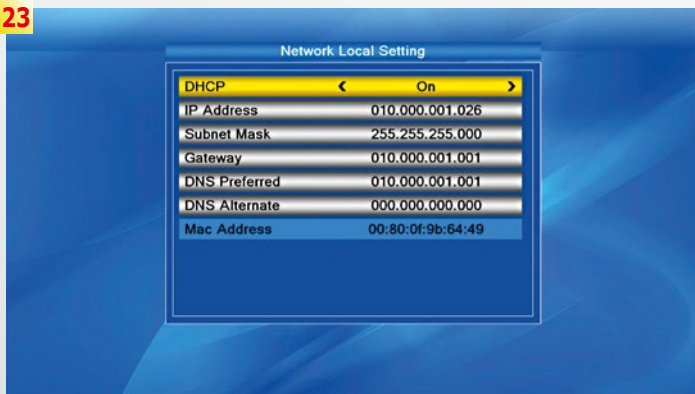
22



19



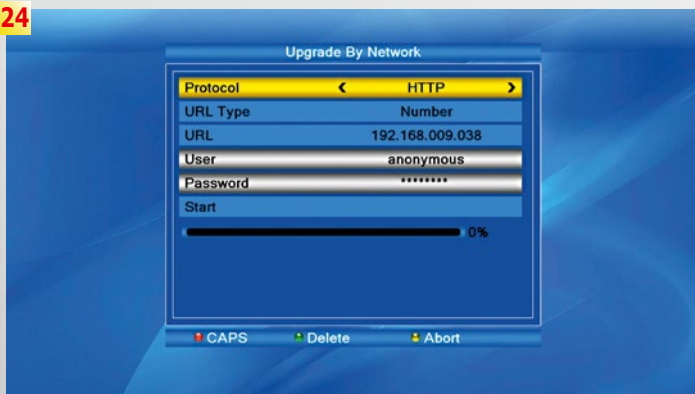
23



20



24



Everything you need: Audio and Video measurement solutions.

Rohde & Schwarz audio and video signal generators and analyzers offer precision and versatility for digital and analog test signals, modulation, demodulation and analysis.



www.rohde-schwarz.com/ad/tm

Portable TV test receiver
— R&S®EFL340

USB TV signal generator
— R&S®SFC-U

Receiver certification
— R&S®BTC

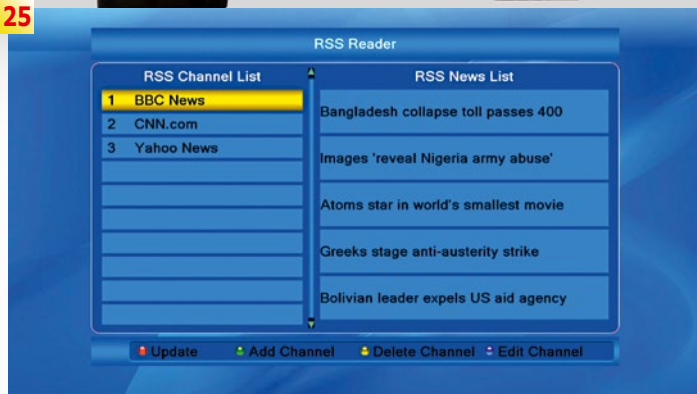
Digital multichannel
satellite TV modulator
— R&S®SLG

HDMI™ analysis
— R&S®VTE

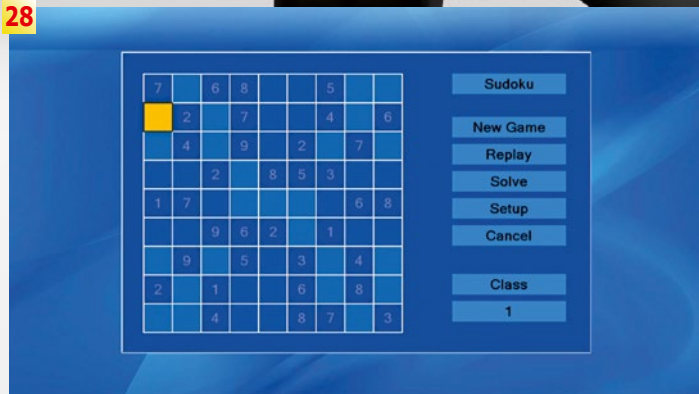




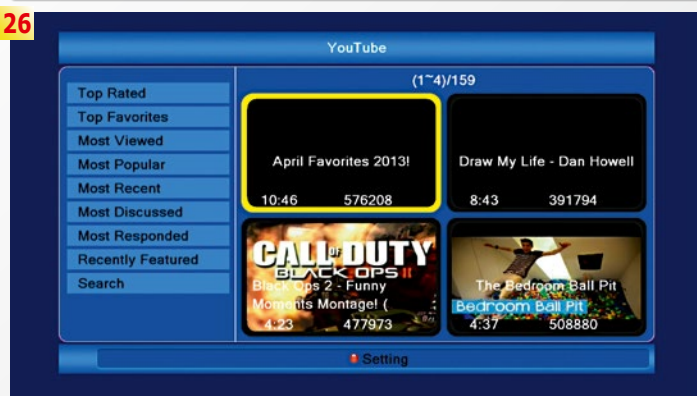
25



28



26



29



27



30



tures are quite exceptional: two recordings can take place at the same time while a third broadcast can be watched live. The Timeshift function also performed perfectly in our tests such that there's no unexpected event that could ruin your evening of watching TV.

To round everything off, the Skyworth HS1H014 also

25. RSS Reader

26. The YouTube client showed the lists correctly but there were problems trying to play back clips

27. Two video games are available to pass the time during commercial breaks

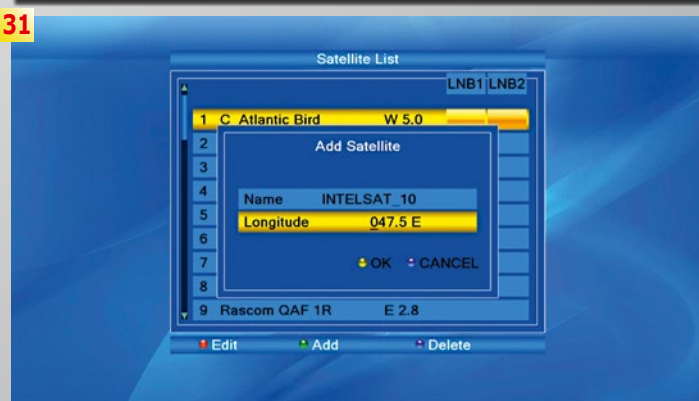
28. Sudoku

29. Information via the attached USB memory stick

30. PVR settings

31. Adding a new satellite

31



PERFECT**VISION**®
M A N U F A C T U R I N G

**BETTER SOLUTIONS,
A BETTER WAY**



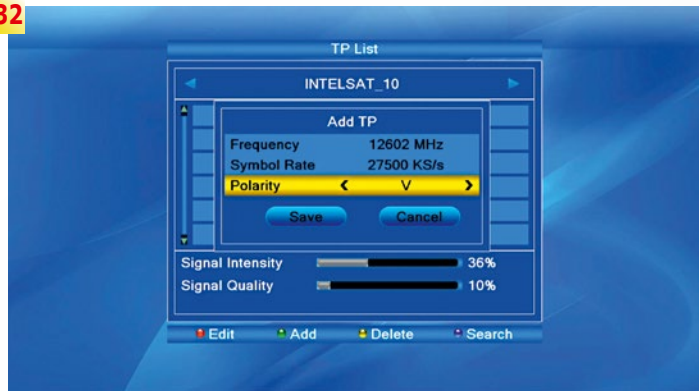
**TAKE ADVANTAGE OF
OUR DESIGN, ENGINEERING &
MANUFACTURING CAPABILITIES.**

Visit us at: www.perfect-vision.com

info@perfectvisionmfg.com | +1.501.955.0032



32



32. Adding a new transponder

33. The Skyworth HS1H014's channel list

34. The satellite list permits quick access to the desired channel

35. Thanks to the practical channel name search, individual channels can quickly be found

36. The Info bar with the title of the current and upcoming channels

37. EPG view for five channels simultaneously

38. EPG view of a single channel

39. Timer programming via EPG

40. Two recordings (even from HD channels) can take place simultaneously

33



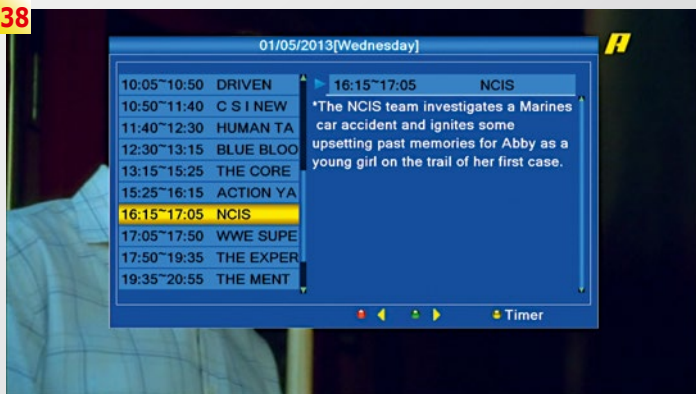
37



34



38



35



39



36



40



Intelsat / GVF Type Approved

Ka-Band Antenna System

VSAT Antenna System

DTH Antenna System



<http://www.azureshine.com.tw>



AZURE SHINE INTERNATIONAL INC.

No.1000, Gwang Fu Road, Pa Teh City, Taoyuan, 33455, Taiwan R. O. C.

E-mail: azure.shine@azureshine.com.tw

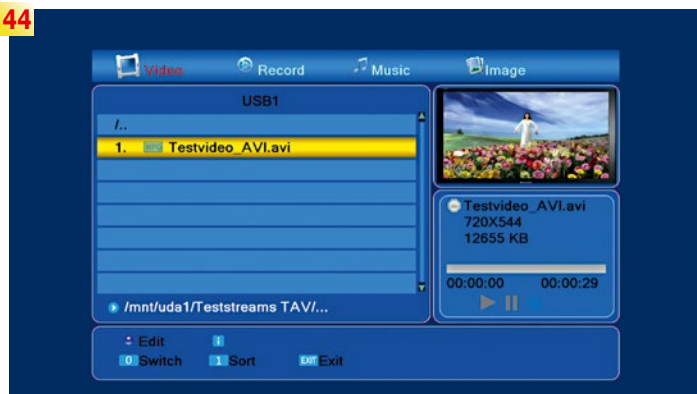
TEL : 886 3-3611393 / FAX : 886 3-3615877



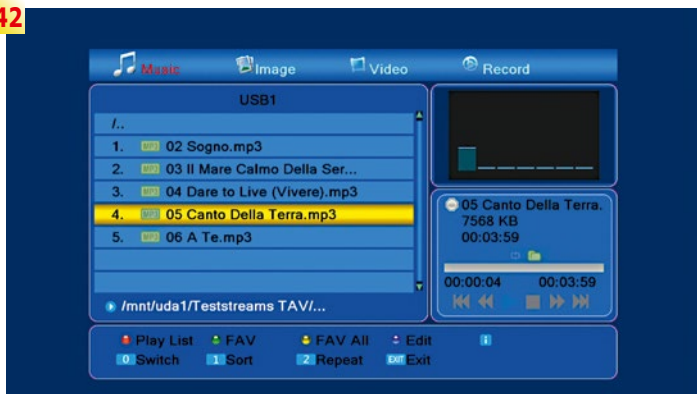
41



44



42



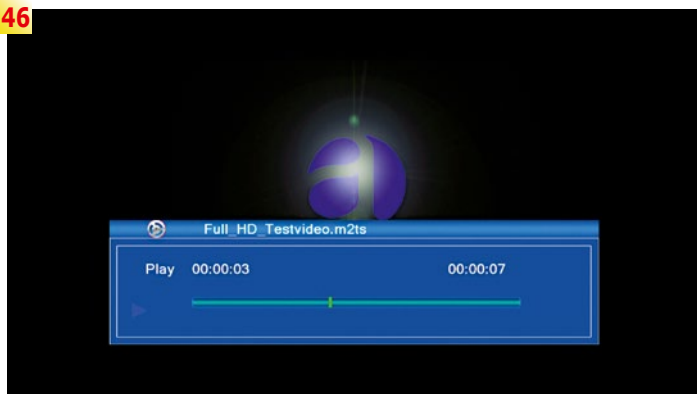
45



43



46



- 41. List of previously recorded content
- 42. MP3 Player
- 43. Photo viewer
- 44. Video playback in AVI format
- 45. Video playback in Flash format
- 46. Video playback in full HD M2TS format
- 47. Video playback in MP4 HD format
- 48. Video playback in TS format
- 49. SCPC reception from 45° west

comes with two integrated video games (Othello and Sudoku) as well as a fully functional media player. In our tests it had no trouble handling the video formats AVCHD, AVI, Flash, MP4 HD, TS and WMV but turned out to be a little weak on the audio side of things. It only supported the MP3 format and not other formats like WMA or AAC. The integrated photo viewer also managed to display our JPEG test pictures without any problems.



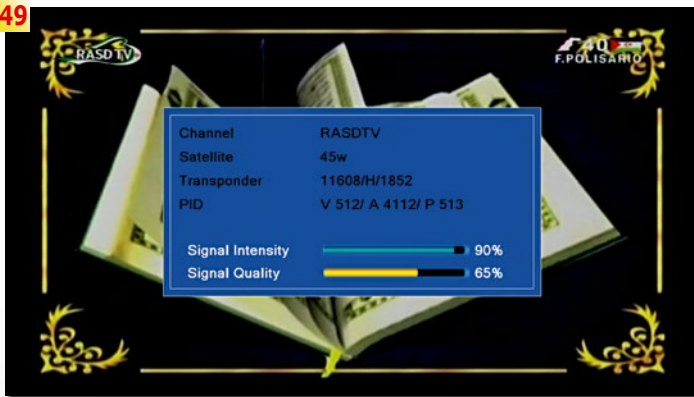
47



48



49



The first 15 minutes active operation; the second 15 minutes Standby

EXPERT OPINION

Skyworth HS1H014
Satellite Receiver

RECOMMENDED
PRODUCT BY ▼



TELE-audiovision
THE WORLD'S LARGEST DIGITAL TV TRADE MAGAZINE



Thomas Haring
Test Center
Austria

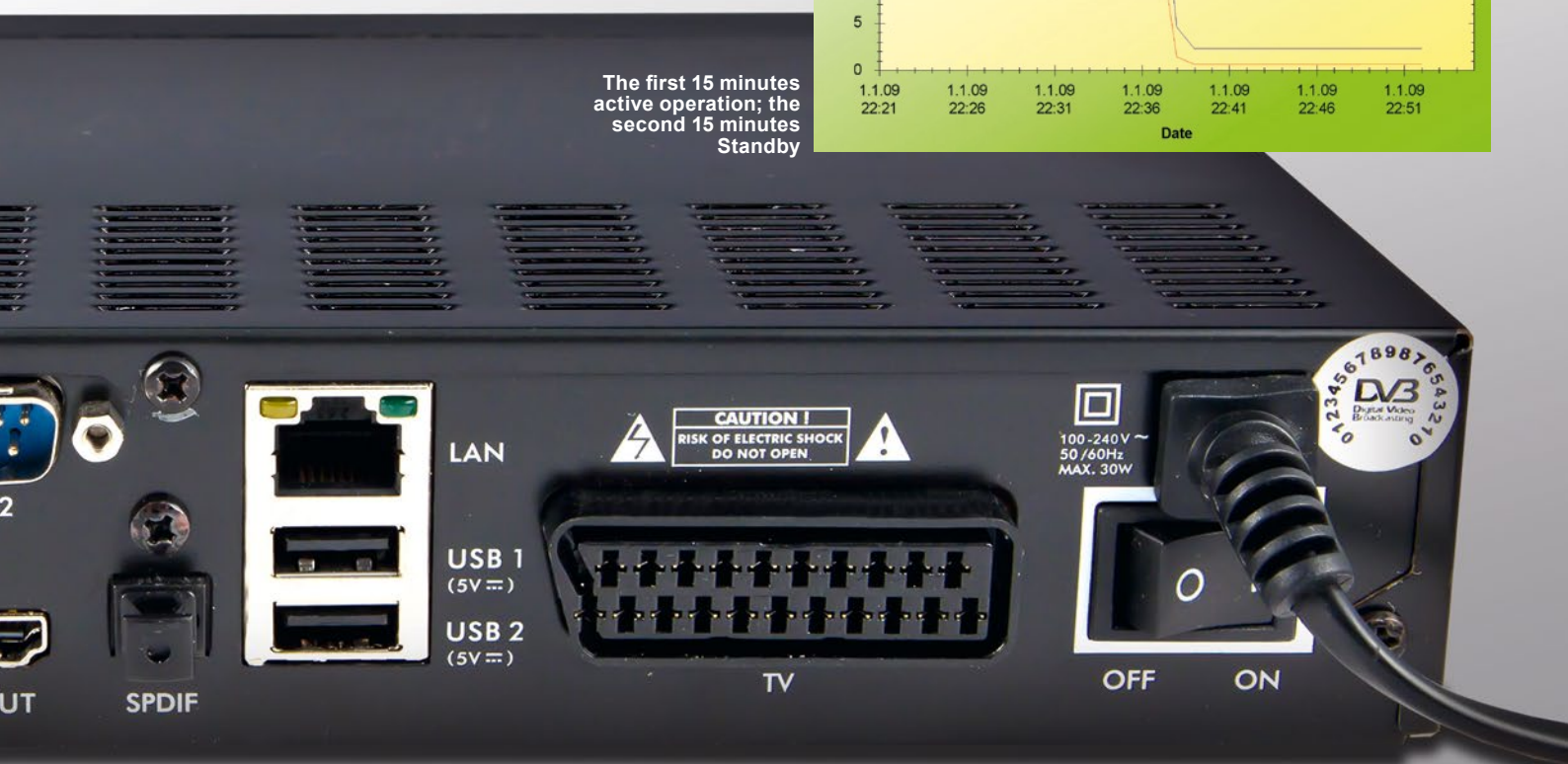
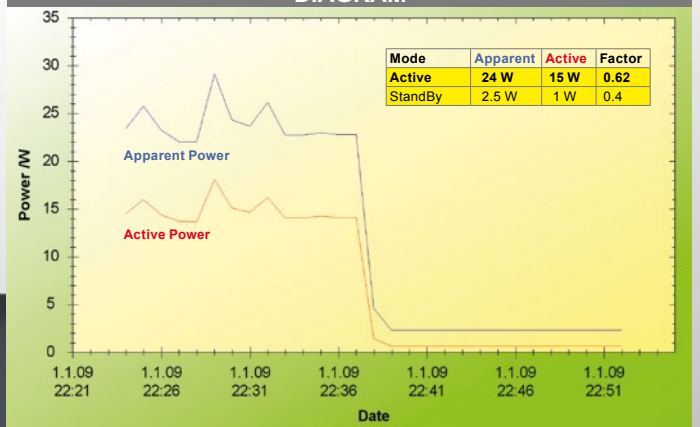
VIP
CARD

TELE
audiovision
www.TELE-audiovision.com

+ The Skyworth HS1H014 is a solid and easy-to-use PVR receiver for the entire family. The twin-tuner PVR functions stand out making it possible to record two programs at the same time. Its network features are nicely designed and practical to use. The integrated media player performed its job flawlessly.

- Updating the software in our test receiver turned out to be not possible because of an incorrect server entry. The weather forecast and YouTube player also did not function as expected. The satellite and transponder list should be updated.

ENERGY DIAGRAM



Macab Catline TVB-02



- *Distributes analog and digital TV signals using a standard network cable*
- *Perfect if only CAT-5/CAT-6 cable was installed instead of coax cable*
- *Very easy installation; perfect for beginners*
- *Existing network cable can now do double duty: for data and also for regular TV*



TV Signal Distribution via Network Cable

No, this test report is not about IPTV. Rather it's about the distribution of HF signals in the 47 to 862 MHz range through a network cable. This kind of cable was not meant to be used for this purpose; it was originally meant to carry data. For distributing TV channels in the 47 to 862 MHz range, you'd normally use coax cable.

But what should you do if only network cable was installed in a home or office with no coax cable for TV? The company Macab came up with a very clever solution: the Catline TVB-02. You simply route the TV signal through the network cable.

Macab makes use of a unique condition with network technology: 100 MBPS networks utilize only six of the eight wires in a network cable (1000 MBPS networks are different though; here all eight wires in the network cable are used).

So you might think that

you could simply fashion a cable adapter that would connect the center conductor of the coax cable to pin 7 and the coax shield to pin 8 of the RJ-45 plug.

But this doesn't work since the cable and the signal have totally different properties and impedances. If you were to use a CAT-5/6 network cable with an adapter and connect it to the coaxial outputs, the signal would not be usable.

Therefore Macab utilizes three technologies in their TVB-02 to make it possible to use a network cable with HF signals:

- The signal is amplified to compensate for the higher attenuation. This provides an overall amplification of the HF signal at the input of the Catline TVB-02. Then, the signal for each of the four outputs can be individually amplified again, to account for the various lengths of cable.

- There's the ability to compensate for skew in order to obtain the best possible results across the 47 to 862 MHz spectrum.

- The conversion from network cable to coax cable is accomplished through an adapter, the TVB-01, that includes a balun on the antenna connector which adapts the signal (see notes).

The Catline TVB-02 is essentially a cross between a standard network switch and an HF signal amplifier. It is shipped in a see-through blister package that contains

the TVB-02, power supply, four special RJ-45 terminations and four screws to mount the TVB-02 on the wall. A detailed user manual is available online for download from the Macab website:

www.macab.tv/en/catline/products/download.

The principle behind this and the installation is quite easy and can even be handled by beginners - without the manual no less.

You merely connect the CATV cable to the HF input



Quality Antennas for the Global Market



Manufactured in one of the most modern factories in China!

- highest quality level
- fully automatic quality control system
- very high volume production at perfect quality
- production with state-of-the-art machinery
- manufactured in environmental friendly factory
- international standards in the production process
- very favorable prices



Beijing Tianditong Information Technology CO., LTD.
Add: 506/513, South Tower Newton office
No.25 Landianchang South Road
Haidian District, Beijing China
Tel: 8610-58411530
E-mail: bjtdt@tdt010.com



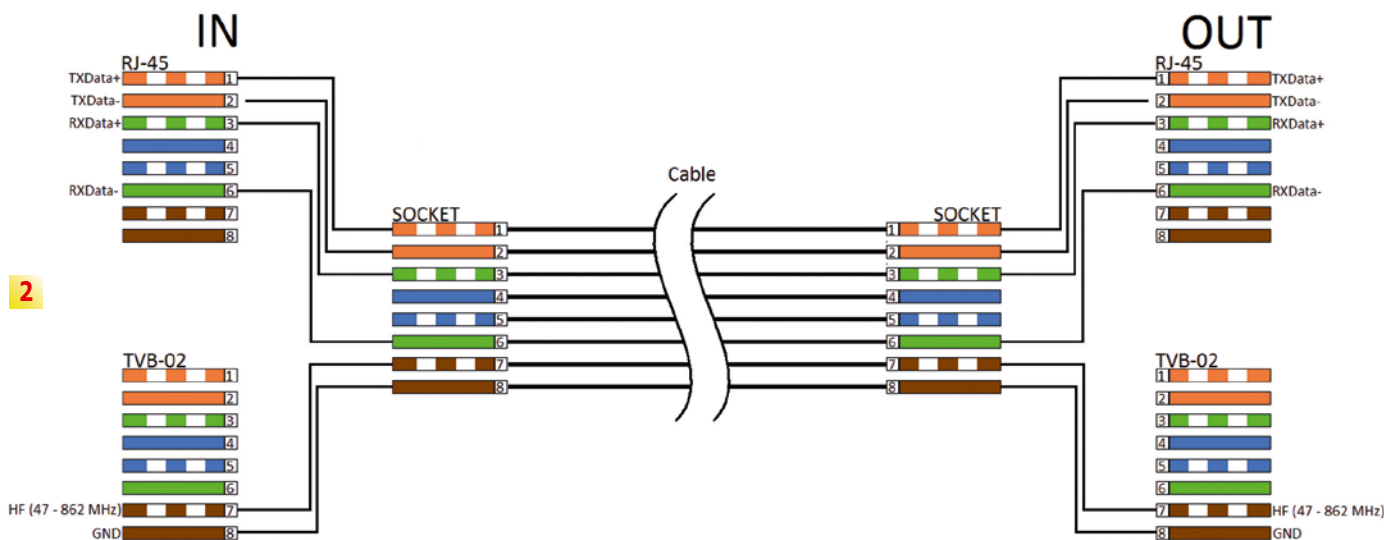
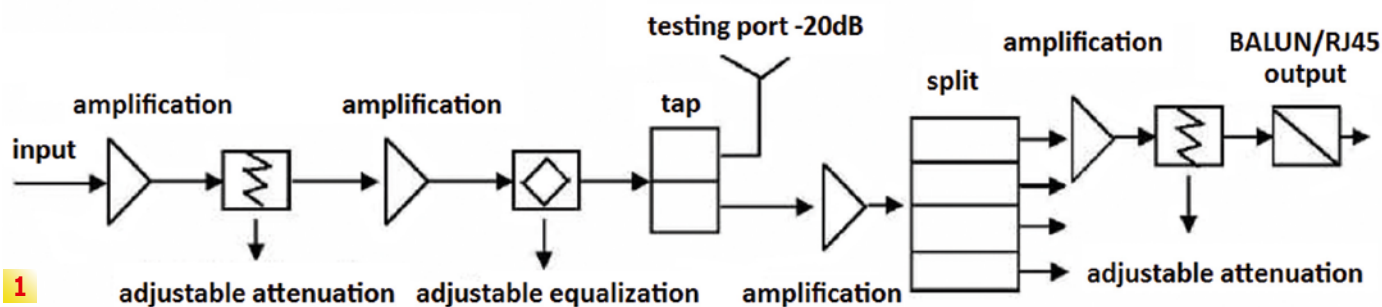
Ask for Quote Today:
nan868@hotmail.com

Tianditong Antenna Factory, Beijing, China

www.tdt010.com



Quality Antennas for the Global Market



on the TVB-02 and then connect up to four network cables that go to the different rooms to the four RJ-45 outputs. At the other end is your typical RJ-45 port.

Here you plug in the special TVB-01 cable that has an RJ-45 plug on one end and a normal HF connector for the antenna input on the other end. Inside this normal HF plug is a built-in balun (see notes) that compensates

for the difference in impedances between the two cable types.

This TVB-01 cable is offered as an accessory. Depending on your requirements, you would need from one to four of these cables. The supplied RJ-45 terminations would be plugged into any of the unused Catline TVB-02 RJ-45 outputs.

And that's it! You can start

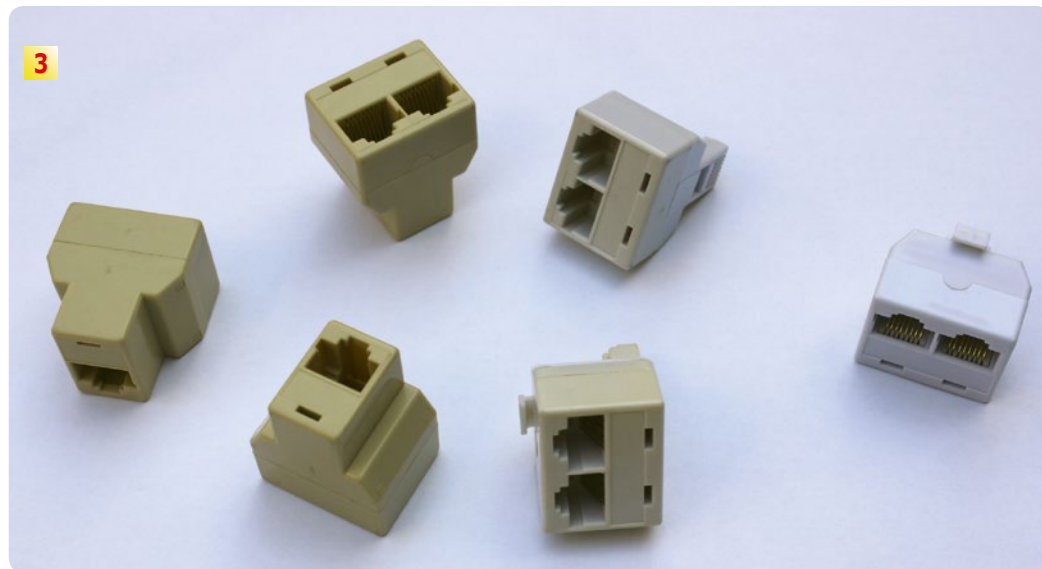
watching TV right away without having to install any new coaxial cable. And yes, it is really that simple. The Catline TVB-02 was connected to the test center's main control cabinet and sure enough analog CATV, DVB-T and even DVB-C could be transported easily through the existing network cable.

The installed cable here in the test center has lengths of roughly 20-30 meters (65-

1. Block diagram of the Catline TVB-02. The input signal is amplified and goes through an adjustable attenuation. After the second stage amplification, there is the adjustable equalization to make sure that the RF signal has flatness over the desired frequency range rather than being tilted. For easier signal amplification and equalization adjustment, a test point is provided, which has a -20dB signal loss relative to the input signal. After an additional amplification stage the signal is divided into the four outputs, where it passes a fourth amplification stage and another individually adjustable attenuation at the RJ-45 balun output port.

2. This picture shows the schematics to mix the network signal with the TV signal. For networks up to 100MBPS only four of the eight conductors are used, so Macab decided to use conductors 7 and 8 (normally brown/white and brown) for the TV signal.

3. You don't have to worry about making your own special custom cables, though. Just use a RJ45 splitter. This will allow you to connect two network cables and attach them joined to a single cable. All pins are connected with each other among the three involved cables, however this does not matter at all, as long as you don't use any gigabit switch within your network. The good news: all different RJ45 splitters I tried have always the same configuration, so you can just buy any RJ45 splitter and it will work.



S3700CHD

TRIPLE TUNER COMBO POWERED BY Spark



- FULL HD TWIN TUNER SATELLITE RECEIVER AND SINGLE TERRESTRIAL/CABLE HYBRID TUNER
- TWIN CONAX CARD READERS, TWO USBS AND AN RF MODULATOR
- DUAL BOOT - SWITCH EASILY BETWEEN SPARK AND E2 LOADER
- ETHERNET PORT, WIFI (DONGLE SUPPLIED SEPERATELY) AND 3G MODEM SUPPORT
- TIME SHIFTING, RECORDING, PLAYBACK AND MEDIA SUPPORT WITH EXTERNAL HDD (USB 2.0)
- HOME NETWORK SUPPORT - SHARE YOUR FILES OVER A LOCAL NETWORK
- UNLIMITED NUMBER OF TV AND RADIO CHANNELS SUPPORTED
- OPERA WEB BROWSER WITH FLASHLITE
- SPARK PORTAL - INCLUDES YOUTUBE, RSS READER, GOOGLE TALK! AND SHOUTCAST FUNCTIONS*
- * INTERNET CONNECTION REQUIRED/3RD PARTY APPS SUBJECT TO CHANGE



NOW EMBEDDED IN THE S3700CHD



THE FIRST ADULT FILM APP AVAILABLE
ON SATELLITE AND TERRESTRIAL RECEIVERS**
ACCESS OVER 500 FILMS A MONTH
EASY PAYMENTS THROUGH SECURE WEBSITE
**WEB BASED APP - INTERNET CONNECTION REQUIRED

PAY PER VIEW - OVER 50 FILMS €1.99 EACH
MONTHLY - CHOOSE FROM OVER 500 FILMS €9.99
6 MONTHS - ACCESS OVER 900 FILMS €49.99

WWW.SEXVIEW.NET

www.icecrypt.com

Email: info@icecrypt.com

Tel: +44 1795 429 666



4. You can order suitable front plates from Macab to properly mount the Catline TVB-02 in a rack. Instead of just placing it inside the rack, as I did, this will look much tidier. Again, Macab was thinking ahead and the rack front plate allows to fit up to two Catline TVB-02, so that you can inject the signal into eight separate networking cables.

98 feet), yet the attenuation was easily compensated for in the TVB-02 through its built-in amplifier.

In order to check out the power of this system a little more closely, additional tests were performed using an analyzer, signal generator and two rolls of cable. One of them held 100 meters (328 feet) of coax cable (Class A) while the other held 100 meters (328 feet) of CAT-6 network cable. The results can be seen in the pictures and description.

The TVB-02 is an innovative idea that solves a specific problem: how do you distribute TV signals in the 47 to 862 MHz range without coax cable? The answer is very simple: you use CAT-5 or CAT-6 network cable instead. The unit functions as expected and is quickly and

easily set up.

This gives a simple and inexpensive solution for those that need to distribute TV signals in buildings through network cables instead of coax cables. The tests in our offices demonstrated the overall capabilities of this system. The ability to suddenly have TV signals available at a network interface port is an added value.

Up until now, TV and radio channels were streamed from the Internet and this annoyed IT administrators to no end. Now they can provide DVB-T or DVB-C TV and radio channels without there being a negative influence on network traffic like that which occurs with Internet streaming.

Macab, with its TVB-02, has hit a home run!

Notes

Balun

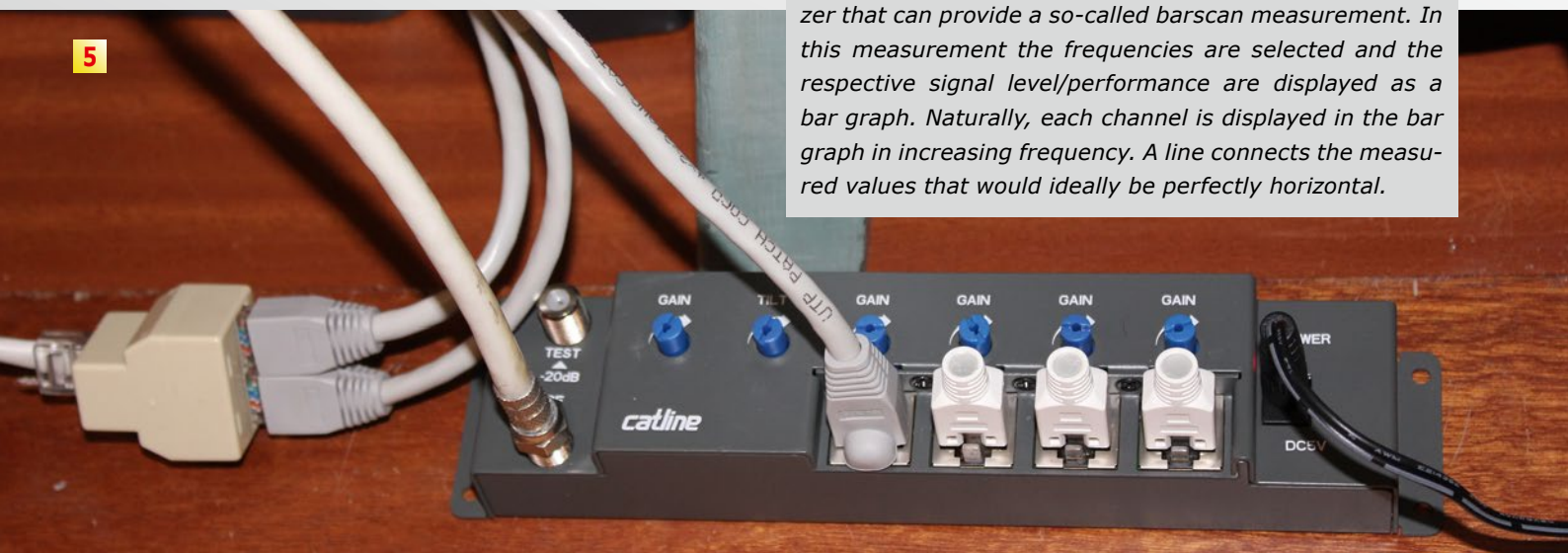
To put it simply, a balun is like an electrical converter that serves to connect a cable that carries symmetrical signals to another cable that will carry non-symmetrical signals. With symmetrical signals you have a positive and a negative signal, for example, +5V and -5V, while a non-symmetrical signal works with ground and carries +5V or 0V. The name „balun“ comes from the words ‚balanced‘ and ‚unbalanced‘ where ‚balanced‘ refers to a symmetrical signal and ‚unbalanced‘ to a non-symmetrical signal.

Tilt

With the TILT control you can set the skew on the TVB-02. This is necessary because the attenuation through a cable varies with the frequency. The higher the frequency, the higher the attenuation. This makes it necessary to vary the amplification of the signal in the 47-862 MHz range to prevent over-amplification of the lower frequencies and under-amplification of the higher frequencies.

Good amplifiers like the amplifier in the Catline TVB-02 permit not only the appropriate amplification but also the proper skew adjustment as well. In order to correctly set up an amplifier like this, you would need a signal analyzer that can provide a so-called barscan measurement. In this measurement the frequencies are selected and the respective signal level/performance are displayed as a bar graph. Naturally, each channel is displayed in the bar graph in increasing frequency. A line connects the measured values that would ideally be perfectly horizontal.

5



Installation

5. Close-up view of the Catline TVB-02. Setup is simple – you just plug it in, attach the RF cable with CATV, DVB-C, DVB-T/T2, etc. Attach the network cable on one of the four RJ-45 connectors and that's it. Make sure to fit the special RJ-45 terminators in the vacant slots.

6. The solution looks very tidy and it does not matter which cable (network or TV) is inserted in which port of the RJ45 splitter. It just works.

7. Does it work? Yes it does! The meter shows the whole spectrum and all channels can be received. Readers paying attention will notice that I have not perfectly equalized the tilt: transponders decrease their levels slightly as the frequency goes up. Fortunately the Catline TVB-02 provides a TILT knob to adjust this.

8. To prove that the TV signal can really be used, I tuned into several analogue CATV channels and DVB-C transponders. Too little or too much amplification will both result in a not so good signal. Also, equalization with the TILT knob makes much difference. Having the separate TEST connector is a blessing: it provides the signal with -20dB attenuation. This makes it possible to setup the signal while you are actually working at the Catline TVB-02. Hook up the meter and tune the amplification and TILT for perfect results. A clever idea by Macab as otherwise you would have to constantly run back and forth between the Catline TVB-02 and the network socket.

9. Satisfied with my quick test I wanted to put the Catline TVB-02 to use in a bigger networking environment, so I set it up in one of the network racks in the office. Again, as long as you can provide the original TV signal in a coaxial cable, setting up the Catline TVB-02 is a quick job. Just plug in the network cables and off you go. This time I just unplugged the cables from the switch and into the Catline TVB-02. The network socket provides now a TV signal instead of the network signal.





10

Testing

10. Time for to put the Catline TVB-02 under a stress test. In order to take amplification systems to the limit we use a cable reel with 100 m of class A coaxial cable. This will attenuate the signal considerably and allows to test for example HF amplifiers. It would be quite unusual for a home or business building to require such a long cable, but we do like to be on the safe side. We started by testing a DVB-T2 signal without any amplification. The signal power was -30dBm at the source, but at the end of our 100m long cable no suitable signal could be found.

11. Hence we attached a simple amplifier to increase the signal prior to feeding it into the cable reel. This time we could get the signal at the other end of the cable.

12. The spectrum shows the DVB-T2 transponder at 754MHz with -39.8dBm. This alone is not sufficient to evaluate the signal quality.

13. The measurements, however, indicate that there is a lock and the LBER value (Bit Error Ratio after the error correction) of under $1.0E-8$ is pretty good. It means that you will get less than one erroneous bit in every ten million bits. The CBER (BER before error correction) however, is just acceptable at $1.1E-04$, it could definitely be better. The signal power is -30.8dBm, so after the amplification and the natural attenuation due to the cable itself we are just 0.8dBm worse than without the 100m long cable.

14. The constellation diagram of the DVB-T2 signal shows a near to perfect pattern. Notice that the tilting of the DVB-T2 constellation is done at the DVB-T2 modulator and has nothing to do with the tilting obtained by a Barscan. This is done because at this high modulation schemes a tilted constellation is more robust and efficient than the non-tilted modulations of QSPK, QAM or COFDM.

15. Nothing beats the visualisation of the TV live image to really make sure that the signal is received in full quality. No problems here.

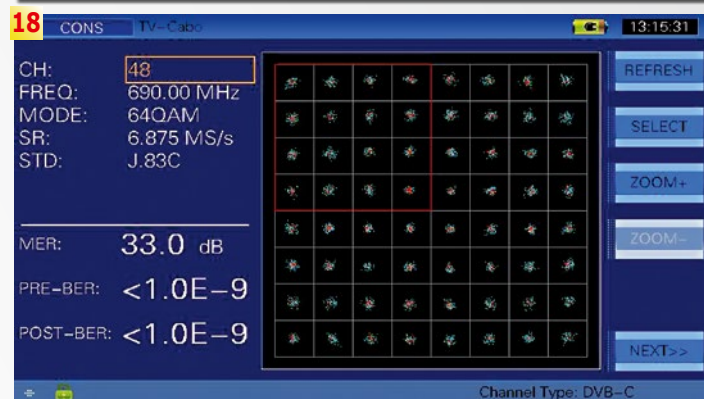
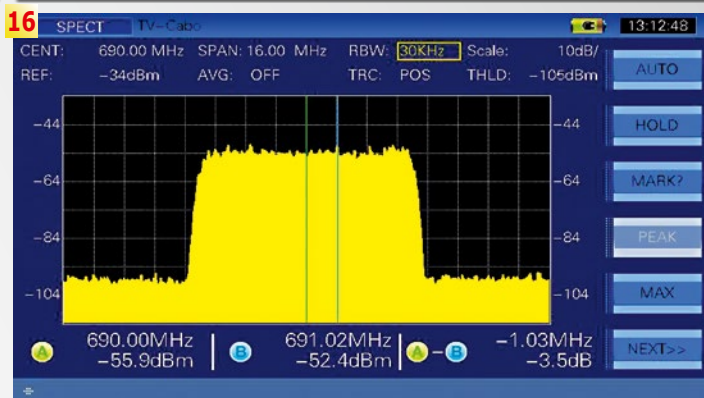
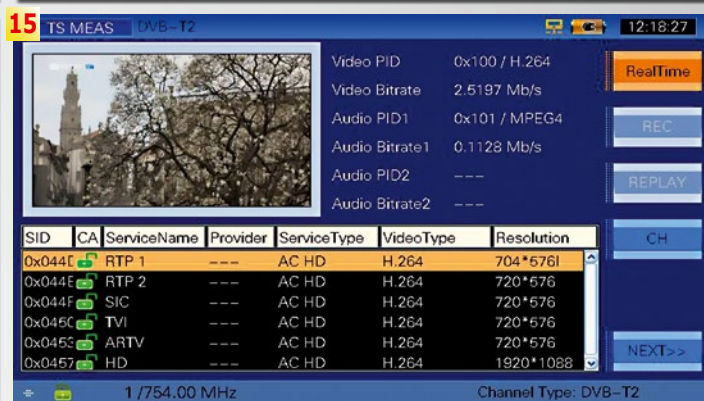
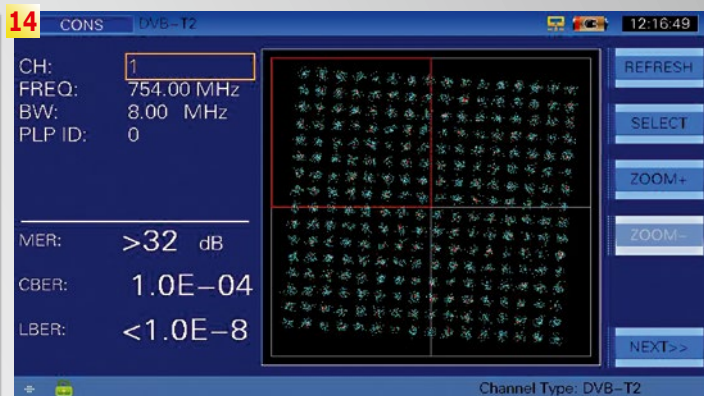
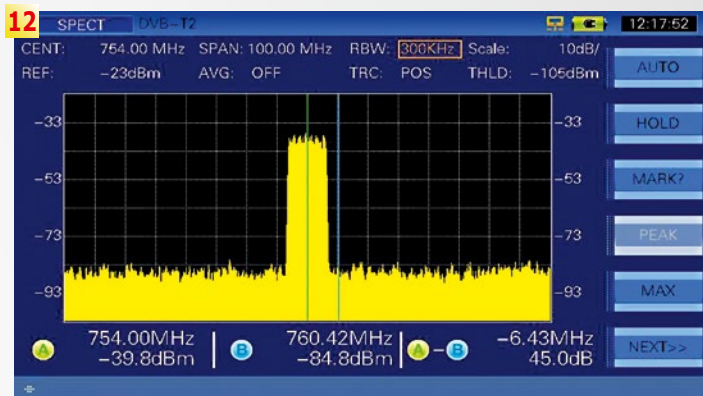
16. Just to make sure we repeated the test, but this time with a DVB-C signal. This is a less problematic signal. The spectrum looks all right.

17. After 100m the signal has a power of -37.9 dBm. Notice the PRE-BER and POST-BER: absolute dream values. As a side note: it pays off using quality class "A" cable. The golden rule is: never try to save money by using low quality cable to save a bit of money – you will later on spend much more to compensate for that.

18. Perfect constellation diagram of the DVB-C signal. This concludes that we can indeed distribute the HF signal over a 100m long coaxial cable, provided that we use an amplifier.

11





Testing

19. The question is: can you distribute the same signal over network cable of CAT-5 or CAT-6 quality? Let's find out! This time I used our network cable reel, which holds 100m of CAT-6 cable.

20. The spectrum shows the DVB-T2 transponder. Interestingly, the 100m CAT-6 cable reel was able to capture a nearby LTE transponder, due to the fact that it has much less cable isolation than a coaxial cable. However, this did not influence the test, as this transponder operates at about 810 MHz. Still, this should remind you that network cable is much less immune to these situations than regular coaxial cable.

21. The measurement screen shows that there is more attenuation using the network cable and I only achieved an LBER value of $6.2E-05$. This however, is perfectly acceptable for a DVB-T2 signal and the

signal source was not particularly strong to begin with – as already mentioned I worked with a DVB-T2 signal with signal power of -30 dBm at the output of the source.

22. After fine-tuning the equalisation with the TILT knob on the TVB-02 the results improved. The LBER is now $<1.0E-8$, which means that we actually got a better result than with the coaxial cable and a simple amplifier. And no, there is no magic going on. Despite having a better LBER value the constellation it is not as clean as with the coaxial cable distribution. While there are no modulation errors, one can clearly see that the “clouds” are not as close together than before, indicating that the signal has suffered from being squeezed into the network cable. Conclusion: you can be sure to have great results with the Catline TVB-02 and you have learned that you should not only use quality cable, but quality amplifiers, too.

23. And again: here is the proof. Perfect

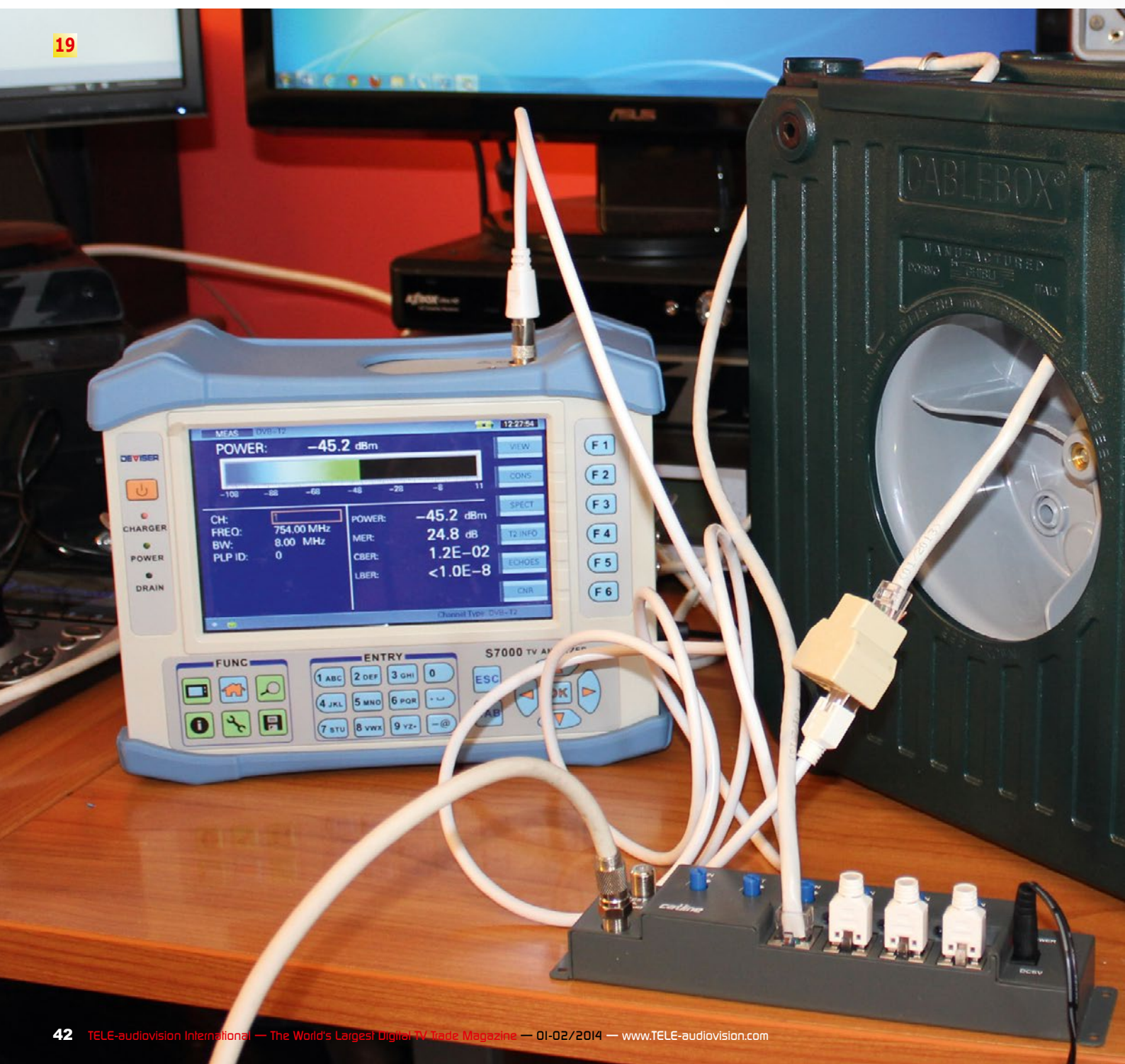
picture from a DVB-T2 transponder distributed over in a 100m long network cable. Amazing!

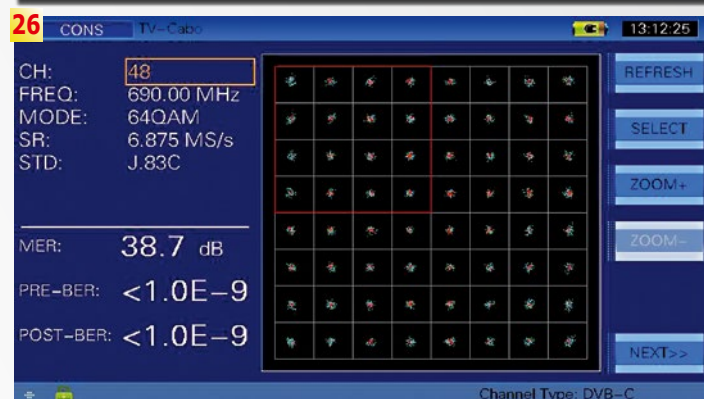
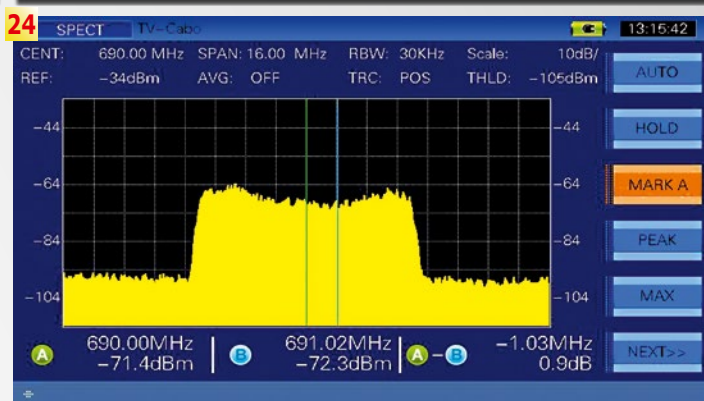
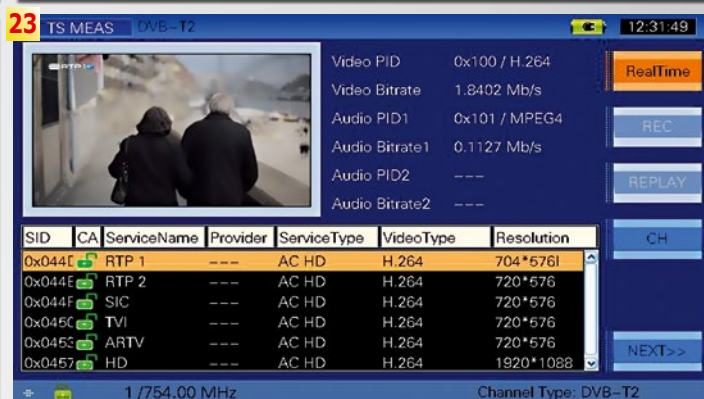
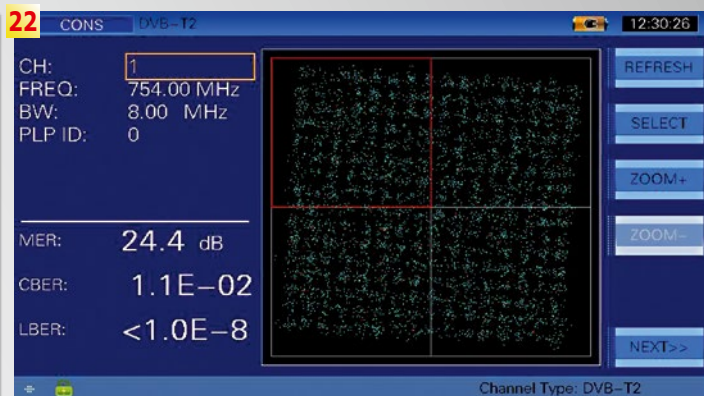
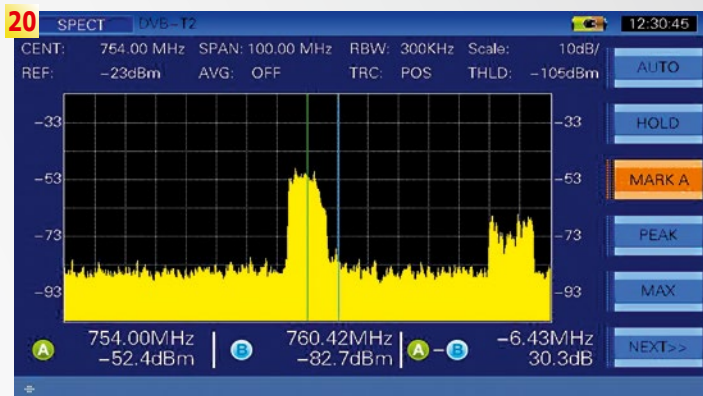
24. Next I tested transporting a DVB-C transponder over the 100m long network cable using the Catline TVB-02. No surprise at this point, as the spectrum clearly shows the transponder at the end of the TVB-01 cable attached to the 100m cable reel.

25. Always a concern: having a good POST-BER. In this case, we have under $1.0E-9$, which is the best possible result. But look closely: even the PRE-BER has a value of $<1.0E-9$. This actually provides a better result than the coaxial cable with the simple amplifier we used. This proves that Macab is using a really good amplifier within the Catline TVB-02.

26. And the constellation diagram shows a perfect point cloud as if it came from a text book. These results are incredible. Never forget that this HF TV signal just went through 100m of plain CAT-6 cable.

19







Testing

27. What about joining network signals to the TV signal? I just fitted two RJ45 splitters at both ends of the 100m network cable reel and on the input side I connected the RJ-45 cable from the Catline TVB-02 carrying the TV signal and the network cable coming from the router. On the other end of the cable reel I attached a regular network cable which I connected with the RJ-45 input connector of the Deviser S7000 meter. Also, I connected the special TVB-01 cable on the other port of the RJ45 splitter. The aerial connector with the integrated balun was then connected with the RF connector of the Deviser S7000. As a side note: having such a meter is great, since you can simultaneously measure TV signals and verify network, as well.

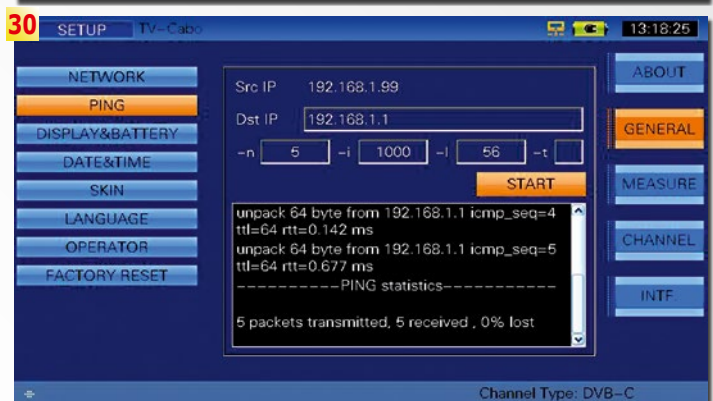
28. The constellation diagram reveals that there is indeed a slight modification of the signal quality when networking signals are carried on the same cable. However, after 100m the constellation is still pretty good. There was a drop in BER but again, this I could be partially recover by fine tuning the amplification and tilting at the TVB-02.

29. After fine-tuning for best results PRE-BER decreased slightly when the network signal is present in the cable, but most importantly the POST-BER is perfect and that's what the error algorithm is there for, anyway.

30. Time to verify if the network signal is working, too. The Deviser S7000 allows to ping other networking appliances and I simply pinged the router. No surprise: all five packets reached the router without delay or problems and hence 5 responses came back. 0% packet loss means that indeed one can just add the TV signal to pin 7 and pin 8 of existing network cables and transport it along. Please bear in mind that this will not work with 1000MBPS ("Gigabit LAN"), as in such case all 8 conductors of the network cable are being used. Also, I tried to see if the TV signal would survive a network switch. The results were not clear. At some tests I could indeed pass the signal from the Catline TVB-02 over a network cable into a switch and then from the switch to the receiver using a second network cable. However, this did not work always. I believe that this depends on all other devices connected to the switch: if one has a gigabit network card, then chances are that it will not work.

31. Transporting analogue CATV channels is of course possible, as well. The picture shows the result of the signal received when amplification and equalisations are not properly setup.

32. After an increase in amplification and increasing the tilt slightly the result improved clearly. Remember, that this signal just travelled through 100m of network cable.



HORIZON

For a reliable solution!

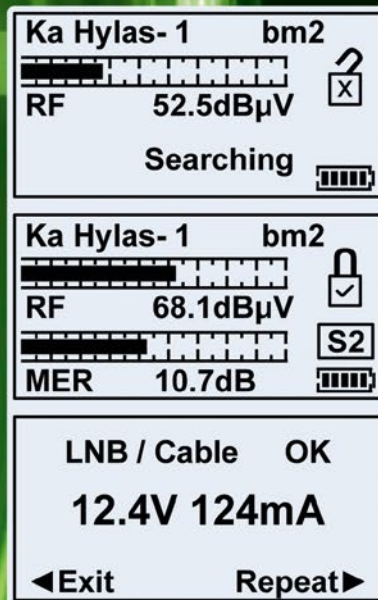
Winners of the Queen's award for international trade 2007, Horizon Global Electronics is a UK Company established in 2001 specialising in the design and manufacture of hand held test equipment for the digital satellite and TV sector. Our strength lies in being able to find innovative solutions to leading technology issues.

Introducing the new HD-S2A!



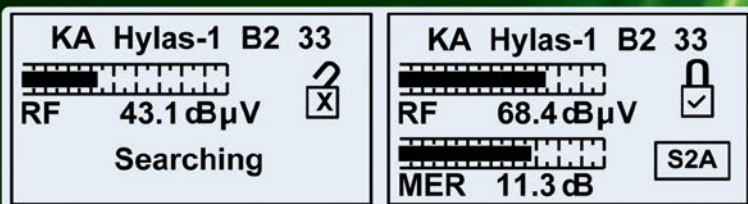
The HD-S2 satellite meter features all the functions you will need to perform DVB-S and DVB-S2 satellite installations.

The HD-S2A developed for Avanti Broadband features tone functions for Hughes Ka-Band ODU polarisation selection.



The cost effective Nano S2A

The Nano-S2A satellite meter is the ideal cost effective solution for Hylas-1 and Hylas-2 VSAT installations. The Nano-S2A features tone generation for Hughes ODU polarisation control along with a lock state indicator that supports DVB-S2 advanced modulation schemes. The signal level and quality indicators make this the easiest meter to use ever. One button does it all. The Nano-S2A can be receiver or battery powered.

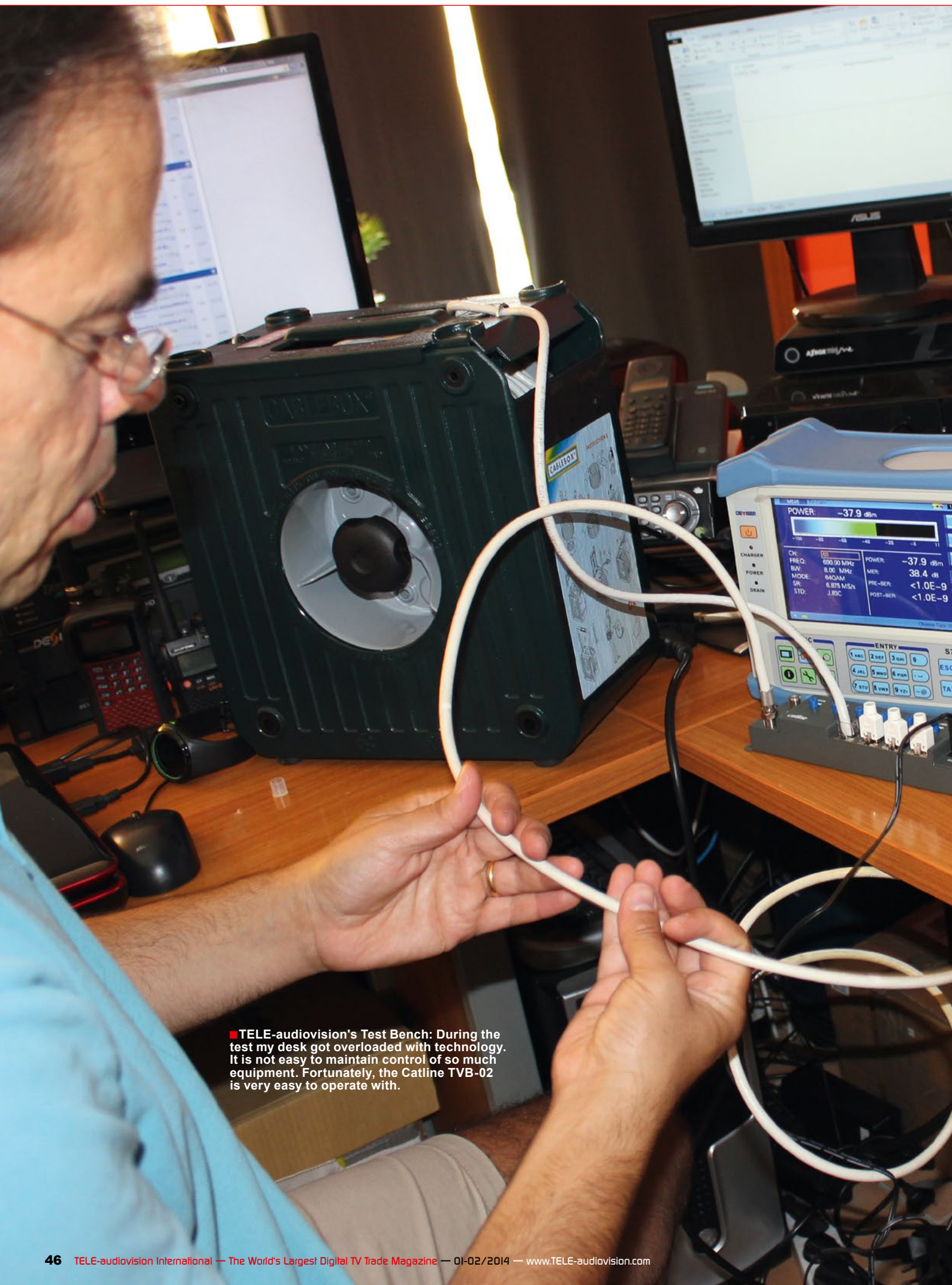


Phone:
+44 (0)1279 417 005

Email:
sales@horizonhge.com

www.horizonhge.com





■ TELE-audiovision's Test Bench: During the test my desk got overloaded with technology. It is not easy to maintain control of so much equipment. Fortunately, the Catline TVB-02 is very easy to operate with.



EXPERT OPINION

Macab Catline TVB-02
TV to RJ-45 amplifier & filter

RECOMMENDED
PRODUCT BY ▼



TELE-audiovision
THE WORLD'S LARGEST DIGITAL TV TRADE MAGAZINE



Vitor Martins
Augusto
Test Center
Portugal

VIP

TELE
audiovision

CARD

www.TELE-audiovision.com

- +** • Easy to setup
- Allows the use of existing CAT-5 or CAT-6 network cable to distribute analogue and digital TV signals (47-862 MHz)
- Simultaneous data network over the same cable (up to 100MBPS)
- Adjustable amplification to different cable length
- • No printed manual included

TECHNICAL

DATA

Frequency range	47-862 MHz
Flatness	±0,75 dB
Impedance	Input 75 Ohm Output 100 Ohm
Gain (47-860MHz)	35 dB (max)
Noise	<8 dB
Adjustable attenuation	Input 0-20 dB Output 0-20 dB
Adjustable slope	0-18 dB
Output level	122 dBµV (DIN45004B) 107 dBµV (42Ch CENELEC)
Return loss (47-862 MHz)	>13 dB
Isolation, port-port	>20 dB
Group delay	<30 ns
Testpoint	-20 dB
Power (via included adapter)	DC 5 V
Power consumption	800 mA
Temperature range	-20 to +60°C
Screening	Class B
Connectors	Input - F-female Outputs - RJ-45 female
Dimensions (LxBxH)	200 x 41 x 38,2 mm



The Fernsehfee Blocks Out Commercials



- *Currently only suitable for the German-language TV market*
- *Recognizes commercial breaks during a TV program*
- *Can record TV programs without commercials*
- *Can presort TV programs according to audience ratings*
- *Compatible with all the other Apps thanks to the Android operating system*



Intelligent TV for the German-speaking TV Market

The Fernsehfee manufactured by TC Unterhaltungselektronik AG is an Android-based DVB-S2 satellite receiver that is highlighted by two special functions: on the one hand there's an Ad Blocker that can recognize commercial breaks while on the other hand there's a Personal TV function. Both of these functions are currently only optimized for German-language TV programs.

The box measures just 13 x 13 x 3 cm (5.1 x 5.1 x 1.2 inches) and comes in a sleek black housing. There are no buttons on the front panel that would disturb the receiver's serenity, but, unfortunately, the user also has to do without a front-panel status display.

The only button on the box, namely the on/off button, can be found on the top of the housing and includes an LED.

On the sides of the Fernsehfee you'll find four USB ports, an SD card reader as

well as a CVBS/stereo audio output.

The rear panel is dominated by the satellite IF input and its looped-through output. But here you'll also find an HDMI port, an RJ45 network interface, a coaxial digital audio output as well as a jack for the external power supply.

Just like the receiver itself, the included remote control is also just as elegant. We were also quite impressed when we had a look at the technical data sheets: The Fernsehfee is powered by a 1GHz Cortex CPU, 1 GB DDR2 memory as well as 4GB Nand Flash. For the op-

erating system the manufacturer chose Android 4.0.4. We were also pleased to see that an appropriate WiFi chip was not left out either; it lets the Fernsehfee communicate with your local router.

After taking care of the initial installation, the user lands directly in the Main menu and if you've ever held an Android Smartphone in your hands, you'll feel right at home. The user is thus able to enjoy the Android features but is also able to set up the Fernsehfee App so that it loads right after turning it on.

Before we begin putting this special App to use, here's a tip: if you want to be able to use the box's features outside of the Fernsehfee App, we recommend connecting a separate keyboard and mouse to the box. For this purpose we used a



Your Partner of OEM/ODM Communication Solution.

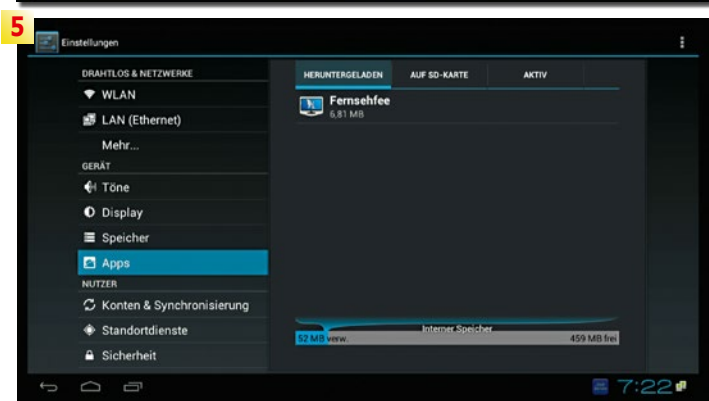
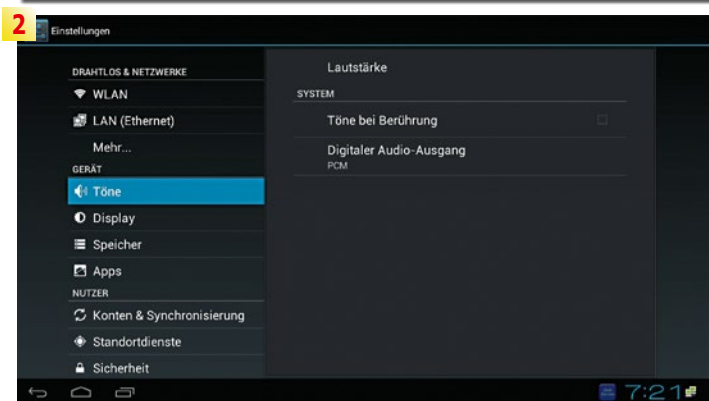
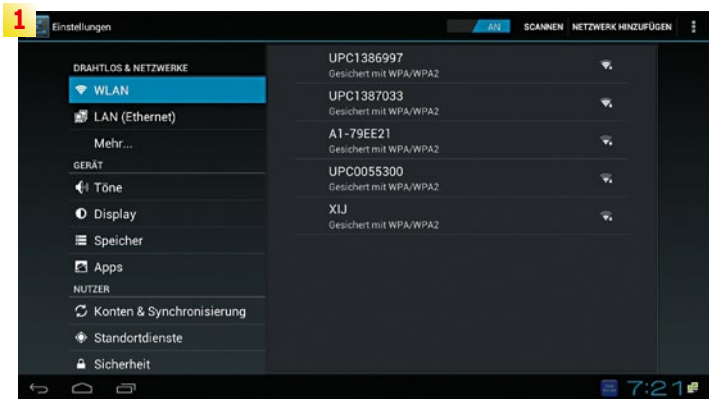


No. 206 Cheng-Kung 3 Rd., Nan Kang Industrial Park Nantou, Taiwan

Tel : 886-49-2260666 Fax : 886-49-2260675

E-mail : saccount@jonsa.com.tw





Logitech K400 wireless keyboard with an integrated trackpad. This makes utilizing the box's functions much easier and quicker compared to the remote control.

After setting up the Fernsehfee to our personal needs, the Fernsehfee App can be started so that we can now enjoy watching TV.

Since the Fernsehfee can provide a very complete TV viewing experience (more on that later in this test report), the manufacturer recommends opening up a free account through their own website (www.fernsehfee.de). This would allow you to store and edit your personal box settings on the provider's server plus you'd be able to utilize a wide variety of features as well as have the ability to remotely access the box. After registering, you merely have to enter your login data in the box and just like that, you're ready to go.

Even though the Fernsehfee has its own integrated DVB-S2 tuner that at first glance resembles a standard satellite receiver, you should ignore that train of thought; this box is nothing like a standard satellite receiver.

But let's not get ahead of ourselves. Before you can do anything, you have to tell the box what satellites you can receive with your antenna system.

The manufacturer had the presence of mind to preprogram the unit with the six most important European satellites: ASTRA 19.2°, ASTRA 23.5° east, ASTRA 28.2° east, ASTRA 4A 4.9° east, HOTBIRD 13° east, EUTELSAT 9° east, TURKSAT 42° east.

Unfortunately, though, during our tests we did not find a way to add additional satellites. This limits the installation of the Fernsehfee functions to central Europe

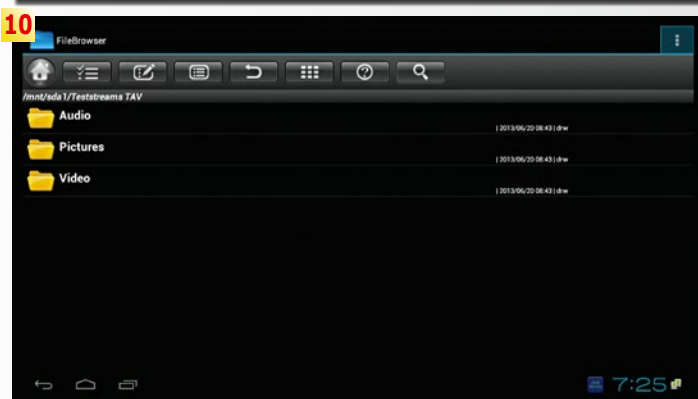
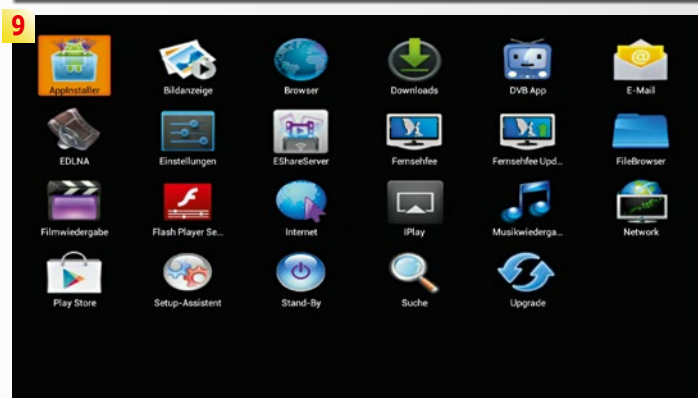
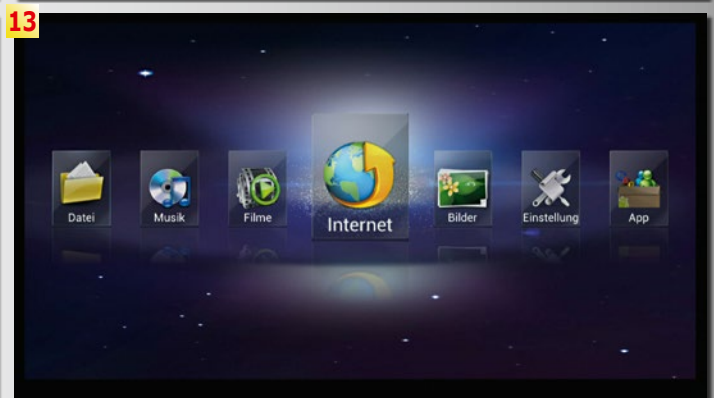
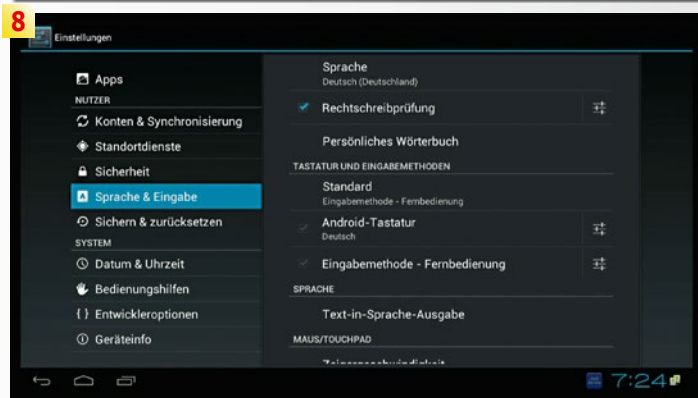
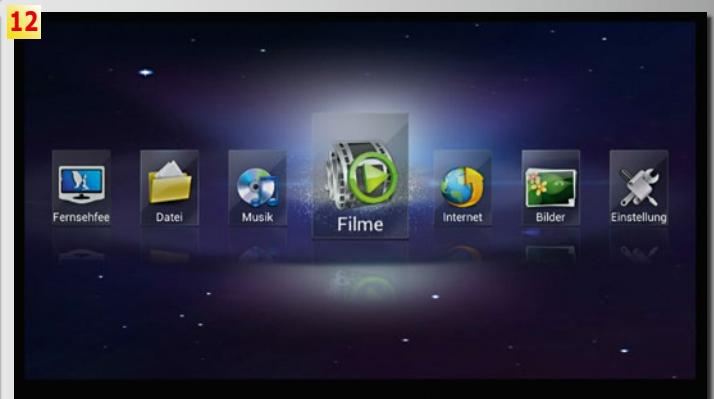
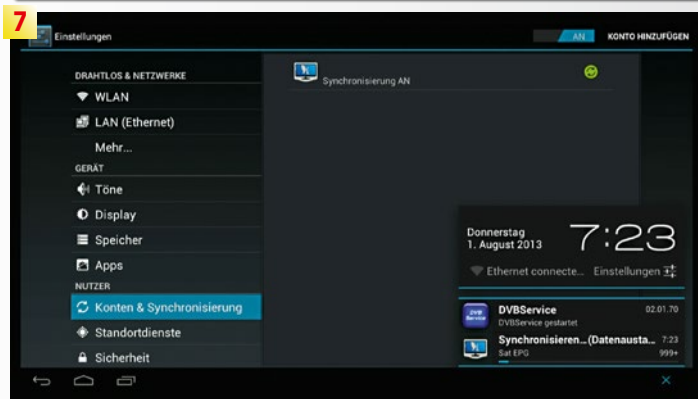
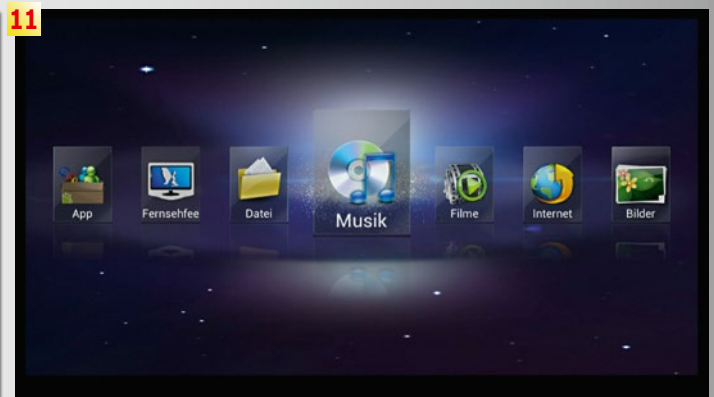
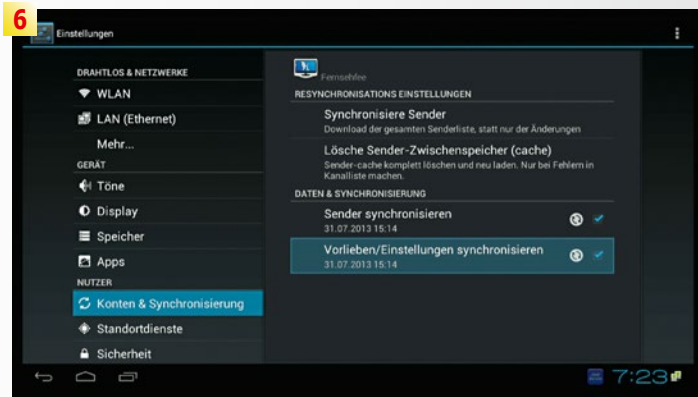
which actually is logical considering that the actual Fernsehfee functions are currently only available for German-language TV channels.

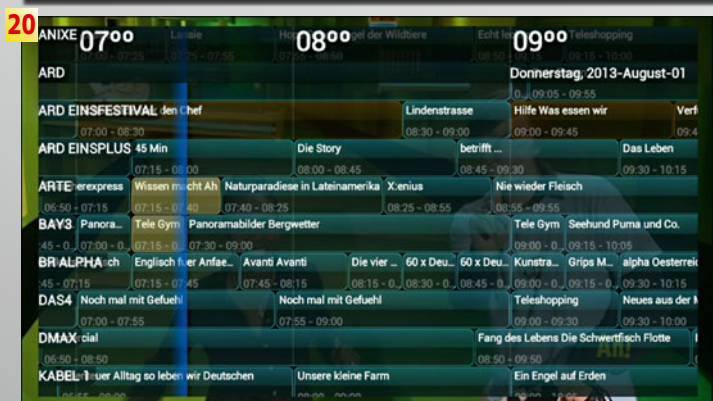
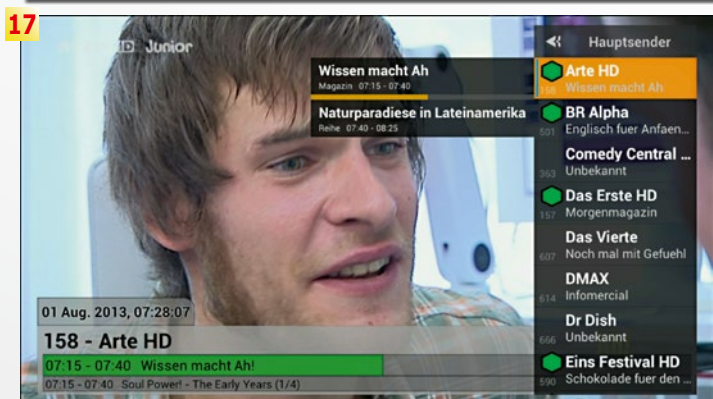
For reception of multiple satellites the manufacturer claims that the DiSEqC protocols 1.0, 1.1, 1.2 and 1.3 are all supported, however, during our tests we were only able to activate DiSEqC 1.0.

And don't waste your time looking through the menus for a channel scan function; instead the box loads a complete channel list for the six satellites directly from the TC Unterhaltungselektronik AG's servers. The advantage here is that there's always a totally up-to-date channel list available for the user but at the same time it prevents reception of any other satellite.

We also didn't find a way to edit the LOF settings for individual satellite entries in the Fernsehfee App nor did we find a way to use SCR single cable solutions. If you need these features or if you

1. WiFi network settings
2. Audio settings
3. HDMI video signal resolution
4. During the initial installation the size of the picture can be matched to your TV
5. Apps settings for the Fernsehfee App
6. Numerous Fernsehfee settings can be synchronized with the manufacturers server
7. Synchronization of the settings and data
8. Numerous basic Android system settings correspond exactly to Smartphones and Tablets
9. Overview of the factory-installed Apps
10. The File Browser can be used to access local multimedia content
11. Music player
12. Video player
13. Internet browser
14. Photo viewer logo
15. The Fernsehfee App is the central component of the Fernsehfee





16. Fernsehfee App main menu

17. Fernsehfee App channel list sorted alphabetically

18. Commercials are currently running on Sat 1; thus this channel is marked with a red dot in the channel list

19. Three different Fernsehfee EPG modes are available to the user

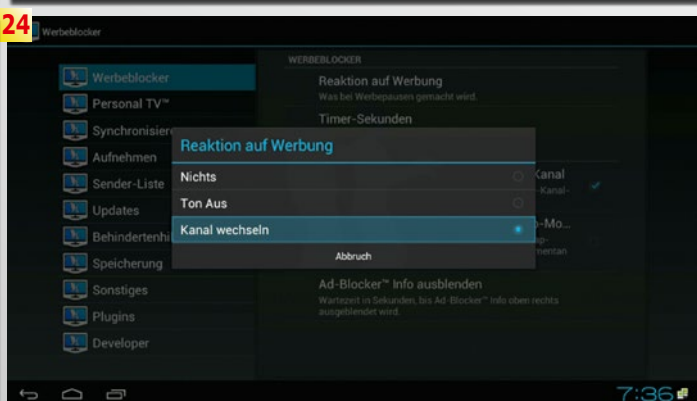
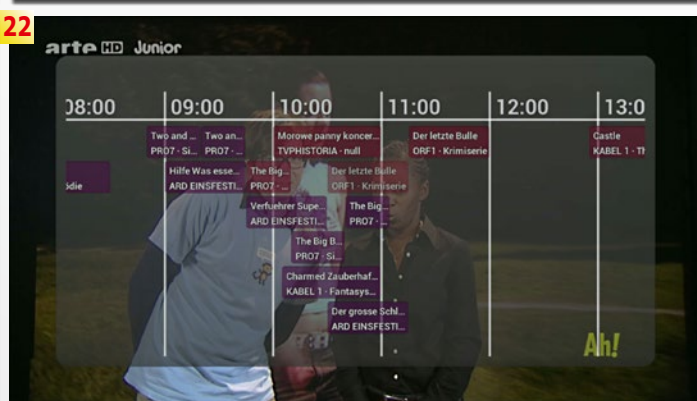
20. Fernsehfee EPG

21. Satellite EPG

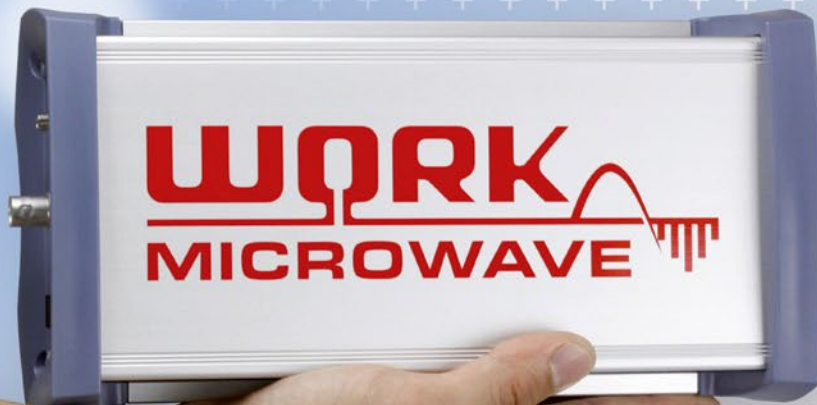
22. TV Pilot EPG

23. For legal reasons the Fernsehfee does not come shipped from the factory PVR compatible. This function only activates after downloading a plug-in.

24. What to do with commercials? The Fernsehfee App can either mute the audio or switch to another channel.



Two High Precision Signal Sources in One Hand



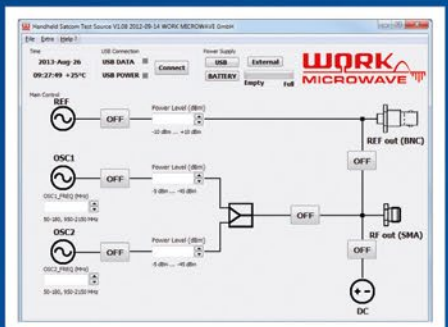
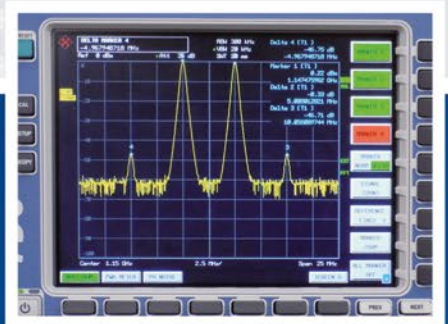
Handheld Satcom Test Source with High Spectral Purity

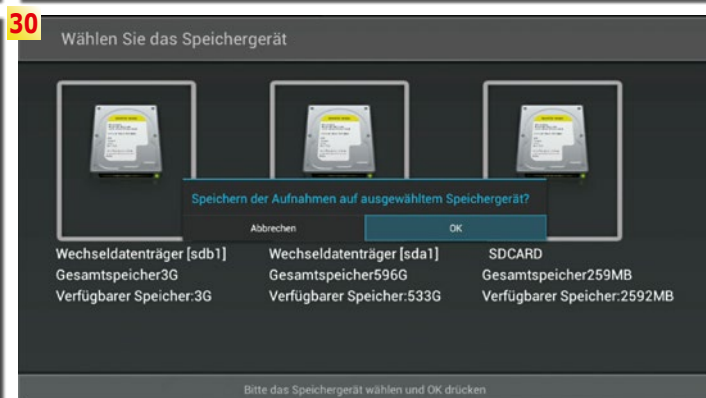
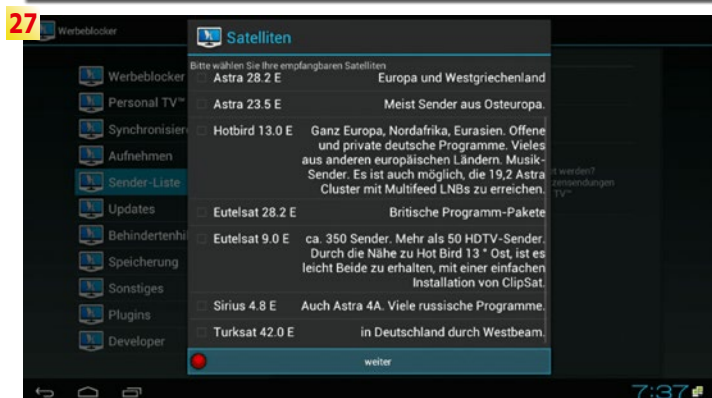
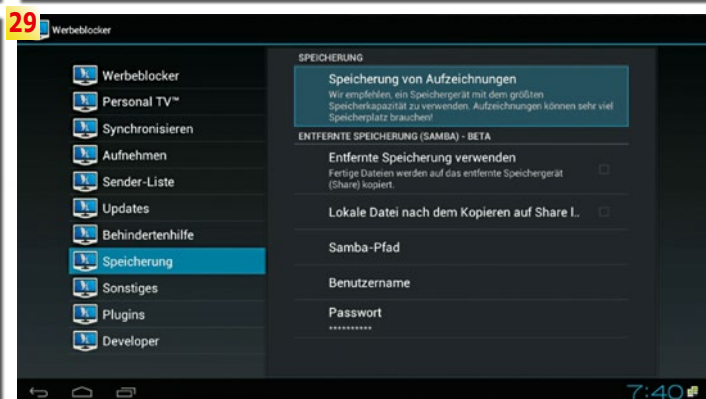
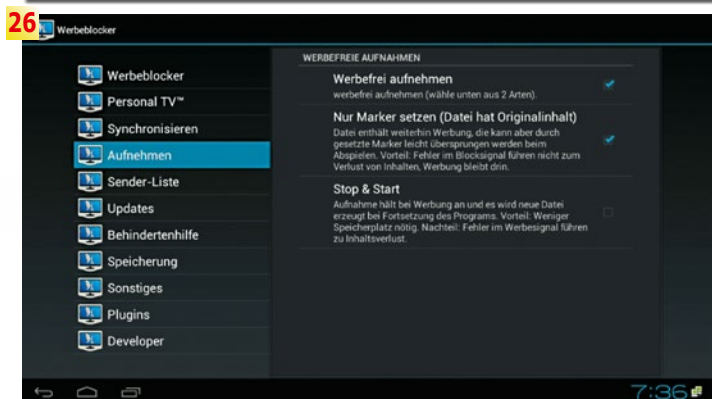
Applications:

- + Signal source for measurement of IP3, P1dB, Gain and more
- + Low phase noise dual carrier signal generator
- + Combined source for BUCs (L-Band, 10 MHz and 24 V DC)

Key Features:

- + Two tone output
- + 50 MHz to 180 MHz and 950 MHz to 2150 MHz
- + -45 dBm to -5 dBm / 0.5 dB step size
- + Both synthesizers independently adjustable in frequency and power
- + 10 MHz reference output with adjustable power
- + Remote control via USB and GUI
- + Power supply options: internal battery, USB or external SMPS





25. If necessary the synchronized data can be deleted and reloaded at any time

26. The Ad Blocker even has influence in the PVR. The user can select how the box handles commercial breaks

27. The list of preprogrammed satellites

28. Sorting the channel list

29. PVR settings

30. External storage devices can be connected via the USB ports so that they can be used for recordings

31. If desired, the Fernsehfee App can be set to automatically start when the box is turned on

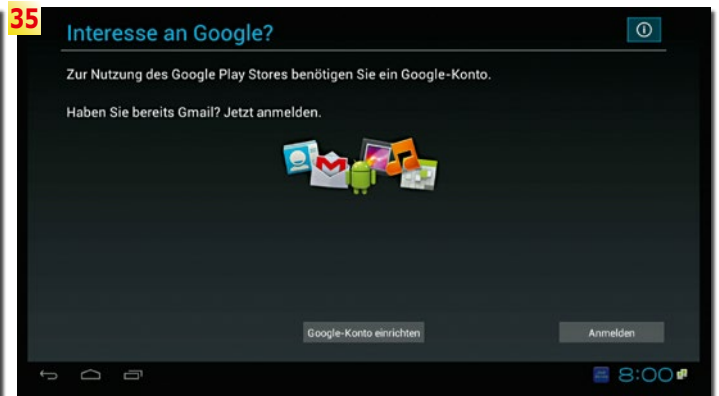
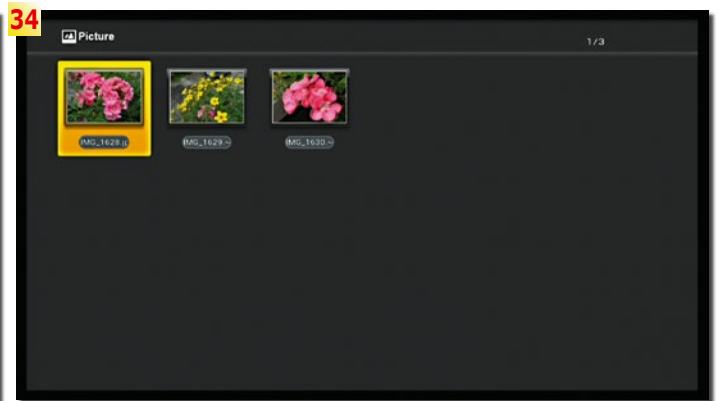
32. Information on the currently received channel

33. Audio, video and pictures can be presented from local storage media

34. Photo viewer

35. A Google account is needed so that all the Android operating system functions can be used

36. The Fernsehfee provides easy access for the user to the Google Play Store



want to receive additional satellites, you have to rely on the DVB App that is also pre-installed, but you will lose all of the additional features that make the Fernsehfee interesting in the first place.

The Fernsehfee channel list that is automatically downloaded from the Internet can be sorted by priority, TV Pilot, Personal TV or alphabetically.

At first this may sound somewhat complicated but in reality there are a number of simple and ideal Fernsehfee features available. Most importantly you should rid yourself of the idea of a rigid channel list since the basic concept of the Fernsehfee is to always have the user's most interesting channels at the forefront.

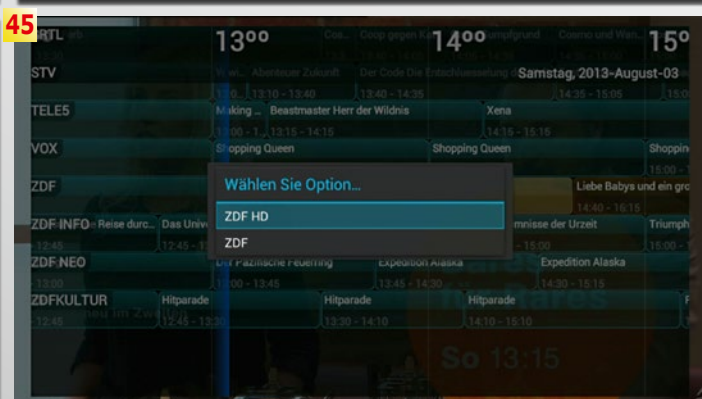
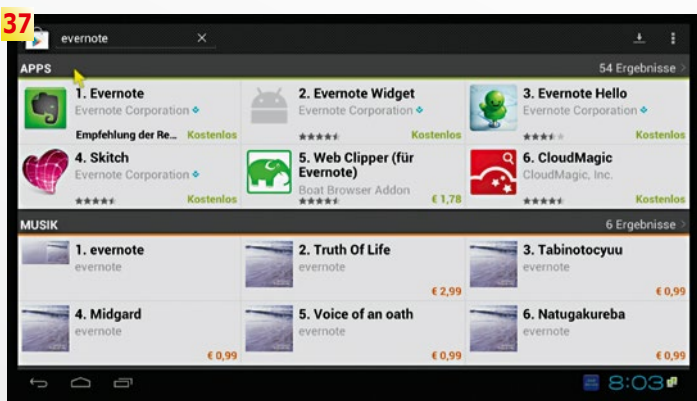
If the channel list is sorted by priority, then those channels that were watched the most on average over the past year will wind up at the top of the list. Sorting by TV Pilot on the other hand takes into account the expected ratings of a channel. Using the ratings of previous programs and a number of other parameters, the box calculates the audience rating that a program achieves and sorts the channel list in such a way that those with the highest ratings end up at the top of the list.

Sorting by Personal TV requires that you've already placed TV channels in groups whereby the Fernsehfee would then sort the channels once again by their ratings.

In this way you could, for

37. Downloading Apps directly to the Fernsehfee box
38. Thanks to the support of external input devices, surfing with the Fernsehfee is a lot of fun!
39. The Fernsehfee channel list sorted according to our personal interests
40. The Fernsehfee channel list sorted according to our personal interests displaying the different categories
41. Naturally, subtitles are

- also supported
42. Unfortunately, we saw this message a number of times during our tests - overall the Fernsehfee App reacts very slowly at times
43. OSD teletext decoder
44. Recorder programming can be handled directly from the EPG
45. If a channel is available in both SD and HD, the Fernsehfee asks which version should be recorded with every timer entry



SATLINK

Digital Satellite Meter

WS-6936

DVB-T&S COMBO METER WITH SPECTRUM



DVB-S Spectrum:

In satellite signal C band and KU band range ,
show the energy distribution of the received signal,
show Cursor location and signal strength downlink frequency,
Signal was locked.

Show spectrum bandwidth: 1200MHz; 540 MHz; 108 MHz

DVB-T Spectrum:

In the 104MHz-862MHz frequency range or stored state table,
Shows the energy distribution of the received signal (Frequency,
bandwidth, signal strength) Signal was locked, can be displayed
Ber, S / N and other indicators.

So don't wait, Call us for a sample!

For the first time in an Economical digital meter, you are now able to view the actual channel on the screen of the meter. Now you can quickly and accurately align the satellite and you can instantly check the stable of the channel right on the screen of the meter. Transponders, Frequency, Symbol Rate, Polarity, and other settings can be modified by the user.



WS-6909
DVB-T&S COMBO METER



WS-6918P
DVB-S2 Satellite Finder Meter



WS-6932
HD Satellite Finder Meter

SATLINK**SATLINK TECHNOLOGY CO., LIMITED**

Add: Jiangnan High-Tech, Licheng District, Quanzhou, Fujian, China

Tel: +86-595-28106302 Fax: +86-595-28106253

E-mail: dp02@baotong.cc

Website: <http://www.sat-link.com.cn> www.hktdc.com/em/fjbaotong

example, display movie or sports programming without any undesired results from other categories.

Personal TV can do even more: you can provide your interests in the smallest detail to the manufacturers website (such as, ball games, comedy series, political dramas, cartoons, etc.). You can even identify your favorite actors or directors to the website.

All of this information is

then directly transferred to the Fernsehfee where it is processed with the TV channels EPG (that is available for up to three weeks in advance) so that a customized channel list is created with all of your desired channels.

With so many design options, we couldn't wait to see the first picture on the TV so that we could finally start our tests.

It took us no time at all to get used to the Fernsehfee's

operational concept; the longer we played around with it, the more fun and pleasure it gave to us.

We especially liked the integrated EPG that was available in the modes Fernsehfee EPG, TV Pilot and Sat EPG. While the Sat EPG merely focuses on the data provided by the broadcasters on the satellite and always shows just one channel, the Fernsehfee EPG displays the programming from nine chan-

nels at the same time for several weeks in advance in a grid format. The TV Pilot EPG shows only those favorite channels and provides an overview of the highlights of the day.

The Fernsehfee's best feature is the integrated Ad Blocker that allows the box to recognize commercial breaks and automatically react to it. The box can be set to mute the audio or switch to another channel as soon





USB Recorder & Player



NDS3554 HD to Digital RF Encoder Modulator with USB



NDS3556 CVBS SD to Digital RF Encoder Modulator with USB



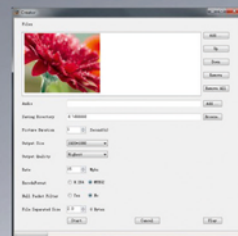
NDS3556 HD Video to Digital RF Encoder Modulator with USB



NDS3557 USB to Digital RF Modulator



TS



TS Recoder and Save:

NDS355X can encoder the source video to *.ts files and save them through the USB flash drive.

- Connect the signal source to NDS355X and start encoding process.
- Start the record process and save the TS generated to the USB flash drive.

*.ts Video Creation Software:

Users can also create *.ts videos containing pictures, videos and music with our creator software on a PC and save them into the USB flash drive.

- Drag the files to "Creator" application. Formats supported include:
Image:JPG, PNG, BMP, GIF
Audio:MP3, WAV
Video:WMV, MPG, Mp4, TS, AVI.....
- Start the conversion process to generate *.ts videos

TS



RF



TS Playback:

Insert the USB flash drive with *.ts videos in NDS355X and play back the content in an easy way.

A single video can be up to 2G in size and multi videos can be played on a loop.



USB Flash Drive Specifications Required: • Standard:High Speed 2.0 • File System:FAT32

www.dsdvb.com



Chengdu Dexin Digital Technology Co.,Ltd

No. 10 adn No. 12 Wuxing Fourth Road, Wuhou District, Chengdu 610045, Sichuan, China
Tel: +86-28-85558928, +86-28-85550524, +86-13882088846 ■ Fax: +86-28-85585255
<http://www.dsdvb.com/english> ■ E-mail: sunyu@dsdvb.com

46 fernsehfee.de/einstellungen/

fernsehfee.de/einstellungen/

Pers. Daten Einstellungen Wunschzentrale Aufnahmen Forum Abmelden

Bitte laden Sie nach dem ersten Start das Update der Software, denn wir haben mittlerweile schon einige Verbesserungen vorgenommen.

1. Stellen Sie eine Verbindung mit dem Internet her
2. Starten Sie "Fernsehfee Updater"

Die neueste Version wird dann heruntergeladen und installiert.

Aus rechtlichen Gründen, um die Aufnahme zu aktivieren, müssen Sie die Recording Plugin App installieren. Dies ist sehr einfach. Die App können Sie hier kostenlos herunterladen.

[Diese Meldung nicht mehr anzeigen]

Voreinstellungen

Standard-Einstellungen für die Programmierung von Sendungen:

Bevorzugte Qualität: HD

Bevorzugter Satellit: Astra

Bevorzugtes Land: Österreich

Speichern

Sendergruppen

Neue Gruppe hinzufügen

Favoriten

Neuen Sender hinzufügen

Neue Lieblingssender können Sie auch direkt mit der Fernsehfee hinzufügen. Das geht so: Gehen Sie mit der rechten Pfeiltaste in die Senderliste. Den gewünschten Kanal mit der "MENU"-Taste in die Favoritenliste aufnehmen.

Portal-Startseite

Kommt demnächst:

Bereiche anzeigen:

- ☐ Empfehlungen für heute abend
- ☐ Interessantes von gestern
- ☐ Interessantes von der letzten Woche
- ☐ Interessantes vom letzten Monat

47 fernsehfee.de/wunschzentrale/

fernsehfee.de/wunschzentrale/

Pers. Daten Einstellungen Wunschzentrale Aufnahmen Forum Abmelden

Wunschzentrale

Genreliste

Genre	Rating	-	+
Sport	★★★★	-	+
Magazine Reportagen News	★★★★	-	+
Wissen, Bildung, Kultur	★★★★	-	+
Musik	★★★★	-	+
Serien Unterhaltung Show Talk	★★★★	-	+
Sex Und Erotik	★★★★	-	+
Film	★★★★	-	+
Kinder	★★★★	-	+
Sonstiges	★★★★	-	+

Genre suchen: Genre hier eingeben

Speichern Genreliste zurücksetzen

Titel

Sie haben noch kein Kriterium für diese Kategorie angelegt.

Neues Titel-Kriterium hinzufügen | Vorschläge | Importieren

Speichern

Schauspieler

Sie haben noch kein Kriterium für diese Kategorie angelegt.

Neues Schauspieler-Kriterium hinzufügen | Vorschläge | Importieren

Speichern

48 fernsehfee.de/aufnahmen/

fernsehfee.de/aufnahmen/

Pers. Daten Einstellungen Wunschzentrale Aufnahmen Forum Abmelden

Aufgezeichnete Sendungen

Es stehen noch keine fertigen Aufzeichnungen zur Verfügung.

Neue Aufzeichnung vormerken

Ihr Titel (optional): TAV TEST

Sender suchen: Sat

Sender	Land	W	F	Frequenz	Mod	Service
Focus Sat TV	Rumänien	0.8 W	*	11996.00		Thor 6
Eutelsat Ultra HD Bottom	Frankreich	10 E	*	11304.00		Eutelsat 10A
Eutelsat Ultra HD Bottom	Frankreich	10 E	*	11304.00		Eutelsat 10A
Eutelsat Ultra HD Top Left	Frankreich	10 E	*	11304.00		Eutelsat 10A
Eutelsat Ultra HD Top Right	Frankreich	10 E	*	11304.00		Eutelsat 10A
Beladi Satellite Channel	Irak	10 E	*	12737.00		Eutelsat 10A
NourSat	Libanon	10 E	*	12734.00		Eutelsat 10A
NourSat Al Shabab	Libanon	10 E	*	12734.00		Eutelsat 10A
Syria Satellite Channel	Syrien	10 E	*	12727.00		Eutelsat 10A
Syria Satellite Channel	Syrien	10 E	*	12727.00		Eutelsat 10A
Syria Satellite Channel	Syrien	10 E	*	12727.00		Eutelsat 10A
TelefortuneSat	Italien	11 W	*	11660.00		Express AM44
Al Jazeera Satellite Chan	Katar	12.5 W	*	11428.00		Eutelsat 12 West A
RTS Sat	Serbien	12.5 W	*	11175.00		Eutelsat 12 West A
Coptic Sat		13 E	*	12556.00		Hot Bird 13A
EURSAT		13 E	*	11470.00		Hot Bird 13B
Eutelsat 3D		13 E	*	10911.00		Hot Bird 13C
LOMBARDIA SAT		13 E	*	11604.00		Hot Bird 13B
LUNA SAT SKY 888		13 E	*	11470.00		Hot Bird 13B
METRO SAT		13 E	*	11470.00		Hot Bird 13B
METRO SAT		13 E	*	11470.00		Hot Bird 13B
METROSAT		13 E	*	11623.00		Hot Bird 13A
NOELLO SAT		13 E	*	11541.03		Hot Bird 13B
NOELLO SAT		13 E	*	12322.00		Hot Bird 13B
PUNTOSAT		13 E	*	11662.00		Hot Bird 13A

Start: 3 August 2013 18 0

Ende: 3 August 2013 19 15

Sender wählen

Vorgemerkte Aufzeichnungen

as a commercial break is detected. When the commercial break comes to an end, the box turns the audio back on or switches back to the original channel.

In our tests, this function worked perfectly on all of the German language channels. But the question is, how does it work?

It's actually surprisingly simple: the employees at TC Unterhaltungselektronik AG monitor all the channels manually and then submit the commercial breaks to the Fernsehfee customers.

Even though this method doesn't sound all that technologically advanced, the reliability of the system that we demonstrated during our tests ultimately proves the manufacturer right.

According to official data, the Fernsehfee Ad Blocker covers up to 99% of all the

German-language channels, and we can confirm this value.

We also really liked the fact that any channel that currently has commercials running on it are identified in the channel list by a red dot. This makes it extremely easy to see ahead of time which channels to surf through and which ones to avoid.

The Fernsehfee is not PVR compatible as shipped from the factory, but have no fear, you can simply download a plug-in from the manufacturers website to turn the Fernsehfee into a recorder.

Thanks to the available USB ports and the SD card reader there is nothing to stop you from connecting an external storage device.

We were able to record one channel at a time in our tests without any problems; multiple simultaneous recordings

46. Individual online portal at www.fernsehfee.de

47. The settings of the Fernsehfee features can also be changed online

48. Recorder programming via Internet

however were unfortunately not possible.

There's a Timeshift function that lets you comfortably pause a program and then continue watching it when you're ready without missing a thing.

Naturally, the integrated Ad Blocker also plays a role in the PVR such that any commercial breaks that occur during a recording are marked so that later on they can be removed on a PC before the recording is burned to a DVD.

You can also just let the Fernsehfee store the individual segments of a program in its own file; in this way the commercials aren't even recorded. And, of course, there's also the ability to set up recordings and if desired even a playback function directly from the EPG.

We found it ideal that the box even asks ahead of time if the program should be recorded in SD or HD. This would only work, though, if the satellite in question carries both the SD and HD version of a channel.

Anyone who burns DVDs on a regular basis is almost certainly aware that HD recordings can only be burned onto Blu-Ray discs.

And it's exactly these users that will appreciate that the Fernsehfee manufac-

turer included this selection capability.

All in all, the everyday use of the Fernsehfee was quite enjoyable; the manufacturer was very diligent in including all the basic features of a satellite receiver as well as ideal features like the Ad Blocker and Personal TV.

The Fernsehfee App worked perfectly during our tests. TC Unterhaltungselektronik AG deserves our congratulations for developing such an excellent product.

And last but not least we don't want to forget to mention that besides the Fernsehfee App, all the other functions of the Android operating system can be used without any problems, whether it's the video player that worked correctly with all of the various video formats we used during our tests, the audio player that can play back a wide variety of different formats, the photo viewer or the web browser that is all the more fun to use thanks to the keyboard and mouse support.

In addition, the user has access to the Google Play Store with its vast assortment of Apps, nearly all of which can be used with the Fernsehfee and its Android 4.0.4 operating system giving the box almost unlimited possibilities.



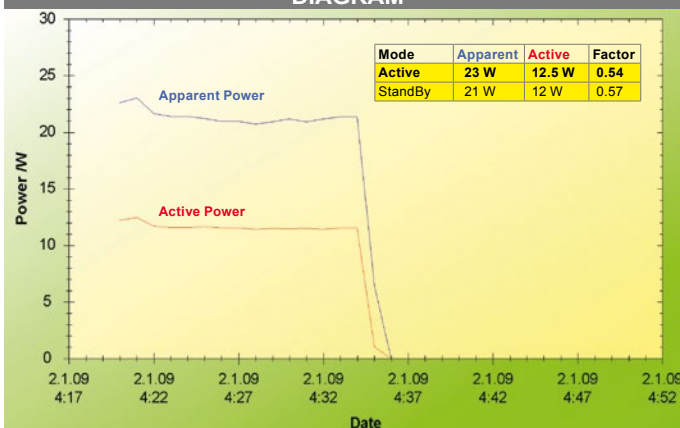
EXPERT OPINION



+ TC Unterhaltungselektronik AG, with the Fernsehfee, has introduced a satellite receiver whose functions have been matched to the primary requirements of the user. The box that is currently compatible only with the German-speaking market is extraordinarily easy to use and at the same time comes with especially innovative features such as the integrated Ad Blocker and the Personal TV function. In our tests these features proved themselves to be very reliable and functioned without any problems. Thanks to the Android operating system running in the background, the Fernsehfee also offers an outstanding user experience in multimedia, Internet and Apps. The entire Google Play Store with all of its many different Apps can also be accessed.

- Because of its exceptionally simplified operation, there are relatively few settings capabilities for more experienced users. The model that we tested unfortunately did not support the reception of encrypted channels although the manufacturer is working on a version with a CI slot.

ENERGY DIAGRAM



The first 15 minutes active operation;
the next 15 minutes standby



The FLEMO - Made by Yagi





- *gives better results than a 4-times bigger Yagi-style antenna*
- *can be mounted horizontally and vertically*
- *arms can be folded for omnidirectional reception*
- *requires strong transmitter signals*
- *very easy to transport in laptop bag*

HITACHI



Very Small Indoor UHF Antenna

In the old times, terrestrial TV reception was firmly associated with regular TV-sets. Not so anymore! Today there is a wide choice of USB tuners available, to be connected to portable devices such as laptops. This transforms the laptop into a full TV set.

However, what is still missing in such a setup is a small and portable terrestrial TV antenna. Only with a suitable antenna you can say you are really flexible and can watch TV anywhere. But of course, exactly such antennas are also available nowadays. For this report we picked a model from the very inventors of TV antennas: Dr. Yagi invented the principle already in 1926. Today, Yagi is part of the Hitachi group and they manufacture a small portable UHF antenna under the FLEMO brand.

The FLEMO antenna is not

only small but it is even collapsible, so you can transport it without any problem in a notebook bag. When unfolded, it is 250 mm long, 95 mm high and 35 mm deep. In such state, it acts like a regular dipole and has a typical "8 shaped" horizontal radiation pattern. However, you can fold each arm of the dipole in the middle of their length and form a rhomboidal antenna which has more or less omnidirectional characteristics. This can be useful when you live in a place when TV reception is possible from more than one direction, from transmitters placed in different locations.

Thanks to a plastic clip the FLEMO can easily be attached to the edge of the laptop monitor. The attached extensive User Manual has a number of drawings showing how to attach the antenna to the monitor. Normally, you



will do that on the top edge of the monitor. Consequently, the dipole will then receive signals in horizontal polarization. But if you need to receive the vertical polarization its all the same: just attach the FLEMO not to the top edge but to one of the side edge of the monitor.

Because the FLEMO has been equipped with a thin and flexible coaxial cable it is very easy to arrange all

the cabling around the laptop. Our test sample of the FLEMO was equipped with an F connector. Most TV tuners come with an IEC socket, but this is a minor problem: suitable adaptors are readily available.

At first, the FLEMO antenna felt and looked to us rather fragile. But after folding and unfolding it a number of times we gained a lot of confidence that it would



AB IPBox **PRISM**CUBE

Satellite and XBMC Multimedia Center



CHECKMATE
THE NEW KING OF LINUX IS HERE



not break when operated in a normal way. Evidently, it has been made of good quality materials.

In our test location in Western Poland we receive relatively weak terrestrial TV signals. Therefore, we weren't surprised that the FLEMO was not able to pick up a useful signal indoors. We moved out to the balcony where our huge multi element wideband yagi is mounted. After installing FLEMO next to its big brother we could conduct a parallel test. We connected a signal analyzer to both antennas and checked signal quality.

After checking different frequencies we found that at 634 MHz the FLEMO's output signal was about 8 decibels weaker than that of the big antenna (49.5 versus 57.3 dB μ V). Carrier to noise ratio was 36.8 dB compared to 44.2 dB. Difference in MER readings was also ca. 8 dB (23.5 vs. 31.4). So, to our big surprise, the FLEMO's antenna gain was just 8 dB below that of a multi element yagi 1 meter long and 0.5 meter wide. A sign of the well thought of design of the FLEMO.

We felt it was a bit unfair to use a fully grown up antenna to compare with the miniature FLEMO so to make the competition a bit more fair we took another set of measurements with a single element yagi-type antenna with a center frequency of 565 MHz and about 1 meter wide. We wanted to check if such an antenna - 4 times bigger than the FLEMO - would produce comparable results.

And this time the FLEMO was an indisputable winner. The yagi-style single element antenna produced only 37 dB μ V of output signal while the FLEMO delivered a very similar results to the first test: a channel power of 50 dB μ V, C/N 36.3 dB and



■ The FLEMO mounted on top of a full grown UHF antenna during our tests. Reception of the FLEMO is only 8 dB less compared to the big antenna.







MER 24 dB. The FLEMO's noise margin was 2.7 dB which means that even in slightly inferior weather conditions it should guarantee a solid reception.

Finally, we changed the configuration of the FLEMO to the omnidirectional mode by folding its flexible arms. The output signal dropped down by about 3 dB and TV reception was practically on the edge. This means using the FLEMO in omnidirectional mode only makes sense if it is used close to a transmitter site or of the transmitter itself is very powerful. Normally, the flat (dipole like) configuration of the FLEMO is a better choice.

Our tests revealed what we expected – due to physi-

cal realities (dimensions) – the FLEMO can not produce results comparable to a big external wideband antenna. However, the FLEMO can yield much better results than a random narrow band yagi-style antenna; even if such an antenna is much bigger than the FLEMO. The FLEMO is indeed designed in a very perfect way.

After our measurements we can say that the FLEMO can perform well up to about 20 km distance from a 50 kW transmitter working at a frequency in the UHF range of 500-600 MHz.

**EXPERT
OPINION**

FLEMO by Yagi
UHF Terrestrial Antenna



TELE-audiovision
THE WORLD'S LARGEST DIGITAL TV TRADE MAGAZINE

VIP

CARD

RECOMMENDED
PRODUCT BY ▼



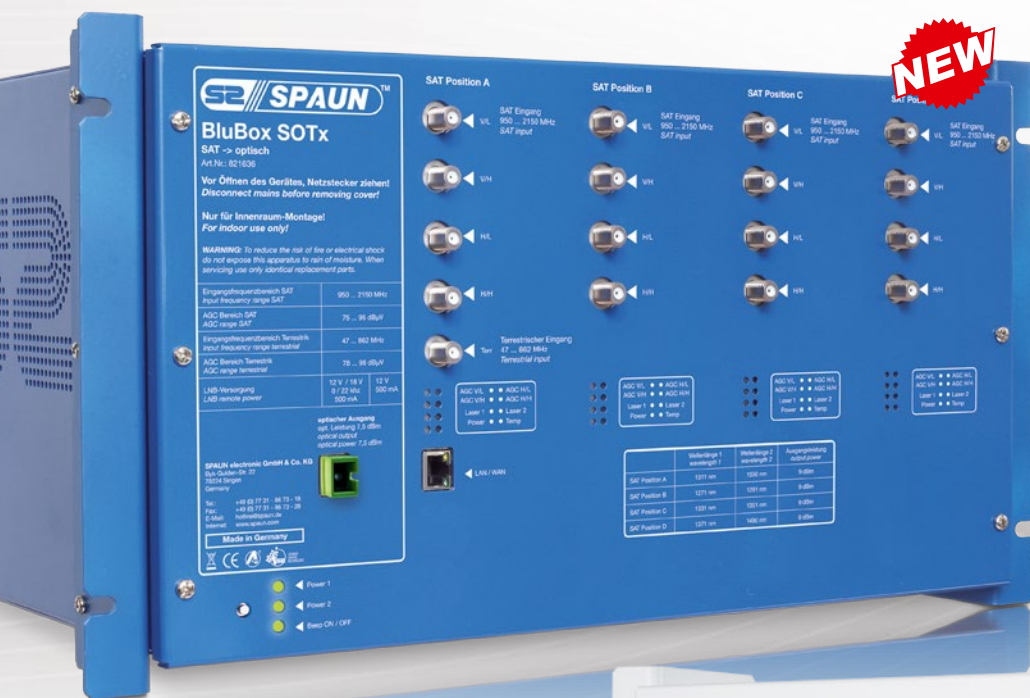
Jacek Pawlowski
Test Center
Poland

TELE
audiovision
www.TELE-audiovision.com

+ Small and very simple to install
Excellent to connect at USB terrestrial tuners for laptops or desktop PC
Easy installation for horizontal and vertical polarization

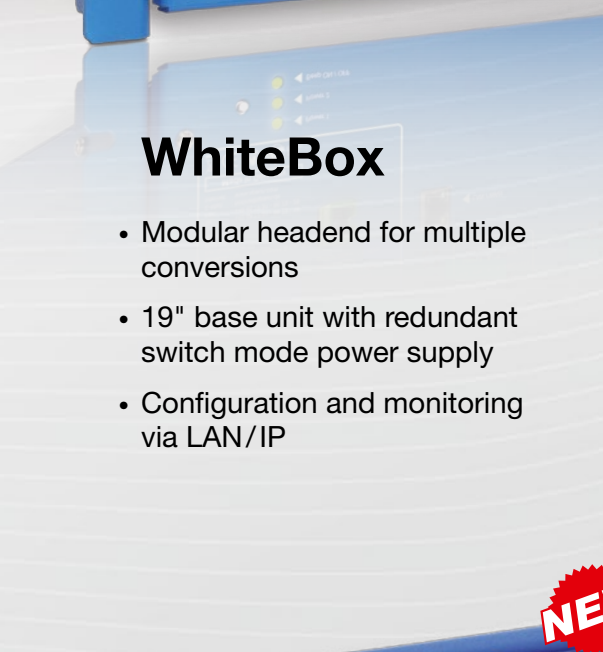
- FLEMO's usage is limited to locations where the terrestrial TV signals are strong





BluBox SOTx

- **Up to 16 SAT IF levels and terrestrial over a single fiber optic cable**
- 19" base unit with redundant switch mode power supply
- Distribution to up to 32 optical nodes possible
- Configuration and monitoring via LAN/IP



WhiteBox

- Modular headend for multiple conversions
- 19" base unit with redundant switch mode power supply
- Configuration and monitoring via LAN/IP



SPAROS 711 Touch Series

- Intuitive operating thanks to a 10" Touch Screen
- DVB-S/S2, DVB-T/T2, DVB-C, HDTV TV displaying
- Compact and robust aluminium die-cast housing
- Supplied in a stable carrying case!



Deviser DS2400T for DVB-T2

- *new tuner allows DVB-T2 measurements*
- *features all tried-and-tested software functions of the preceding model*
- *tuner with very low threshold for extremely weak signals*
- *new OLED display*
- *extended frequency range*



DVB-T2



How to Make a Professional Meter even Better

The DS2400T from Deviser is one of the most exemplary meters for terrestrial signals, and our in-depth test report in TELE-audiovision 09-10/2012 had nothing but praise for this handheld meter. It was and still is a perfect tool for checking DVB-T signals – but not for DVB-T2!

The updated model has changed all that: It is now fully compatible with DVB-T2 and we gave it a try in our Vienna test center. Live DVB-T2 signals are readily available at that TELE-audiovision test center, which is all the more reason to look at the changes of the DS2400T – even though you wouldn't note an outside difference from the model it replaces.

No surprises there, since both the shape and the low weight of the meter have received accolades from hundreds of professional installers in the past.

The situation changes, however, when we look behind its first appearance: The DVB-T/DVB-C tuner that had been used before was replaced with a next-generation tuner for DVB-T, DVB-T2 and DVB-C. This goes hand in hand with an extension of the receivable frequency range that now goes from 5 to 1052 MHz rather than to 1000 MHz as before.

Even though the previously used TFT display sported perfect readability, Deviser has now opted for an OLED display for its new model – offering the same resolution with 320 x 240 pixels. The

new display generates less heat and offers even better colours.

The voltage of the built-in battery pack was increased from 11.1V to 12.6V, which was a technical change required for the new tuner and display. In return for this slightly increased voltage battery life was reduced by half an hour and now covers 4.5 hours of continuous operation. But make no mistake about it, 4.5 hours is still an excellent result and you'll hardly notice the missing 30 minutes in real life.

DVB-T2 is gaining momentum all the time. Several countries have already adopted DVB-T2 as their terrestrial standard, and many other regions still using DVB-T are working on the transition to DVB-T2. One thing is for sure: Sooner or later DVB-T2 will become the default terrestrial transmission standard and – obviously – installers will have to upgrade their equipment as well. The DS2400T from Deviser comes into play quite nicely at this stage.

Not much has changed as far as functions and options are concerned, which means the results of our test report in TELE-audiovision 09-10/2012 are still valid. The software used for the DS2400T has also remained the same, except that it now offers all DVB-T2 functions as well. So this test report only looks at the new DVB-T2 features.

We have come to expect

from Deviser that its meters are a perfect match for measuring all terrestrial DVB signals and once again the model at hand lives up to those promises: All active DVB-T and DVB-T2 frequencies were detected, locked in and measured. It only took a few seconds for the DS2400T to display the signal level,

MER, as well as CBER and LBER (VBER) values. All other relevant functions such as BER measurements or constellation diagrams are now available for DVB-T2 as well.

It was by chance that we detected a very weak DVB-T2 frequency during our test, with a signal that was hardly noticeable at all –





Tested & Recommended Product by
TELE-audiovision International
The World's Largest TV Box Magazine





01-02/2014

Deviser DS2400T
Perfectly equipped to measure
all terrestrial DVB standards

www.TELE-audiovision.com/14/01/deviser



S1-50HD

Dual Core Android 4.0 OS OTT Box with DVB-S2 & 3D GPU

- Operation System: Android version 4.0.4
- XBMC Supported
- ARM Cortex-A9 Application processor with NEON SIMD
Multimedia extension: 5000DMIPS Dual core 1GHz
- Advanced NEON includes the ARM NEON SIMD extensions
- 3D GPU supports 3D user interfaces & games
Broad Format HD Content Decoding: online video on demand (VOD) and over-the-top (OTT) services, including native support for VP8 codec
- Supports Mouse and Keyboard
- 3G USB DONGLE supported
- Support Android Browser Apps/boot animation/Screen Shot/File browser/ Live Wallpaper
- Support Google Search, Web browser, Email, ect

DVB-S2 Twin Tuner Box with Enigma2 & XBMC OS

- E2 BMC-XBMC and Enigma2 dual-boot
- DVB-S/DVB-S2 Satellite Compliant based on Enigma2
- Twin Sensitive Tuner Supported
- Enhanced media features and functionality from XBMC
- Abundant media plug-ins for users: XBMC-movies, pictures, radio channels, plenty of library portals available
- Support Webserver, Airplay, NAS, Samba and Cifs connection
- Remote control app available for working on Smartphones and tablets
- Media content share by BubbleUpnp with Smartphone and tablet
- Real Picture in Picture Supported



Digital T2/S2/C Combo Meter

- DVB-S2, DVB-T2/T and DVB-C signal meter in one
- High performance spectrum analyzer to display the signal strength of all transponders
- Pre-/ Post-BER and MER indicator, C/N in the dB and signal level in dB/μV
- Constellation analyzer
- Screenshot Function (Capturing): screens with data can be in BMP format on a USB-stick
- Super ECO system management for power saving, auto-standby function supported
- Multi-lingual OSD menu supported
- Weight: 480 grams
- Dimensions: (W*H*D) 105*170*45 mm

even though our large outside antenna maxes out on reception as far as possible. A look at the constellation diagram for this frequency looked like a shot in the dark: dots without a clear focus and lying far apart in different squares. No wonder we could hardly achieve reception. The DS2400T, however, helped us optimise our antenna's alignment so that the signal quality could be slightly improved. Nonetheless, the overall signal was too weak for reliable and interference-free reception.

The new DS2400T from Deviser with its DVB-T2 compatibility is absolutely fit for future use and ready for DVB-T2 reception, which will be rolled out in many countries in the near future.

TEST REPORT | Digital TV Meter |

DEVISER DS2400T



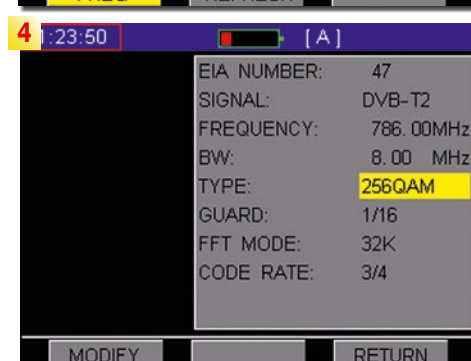
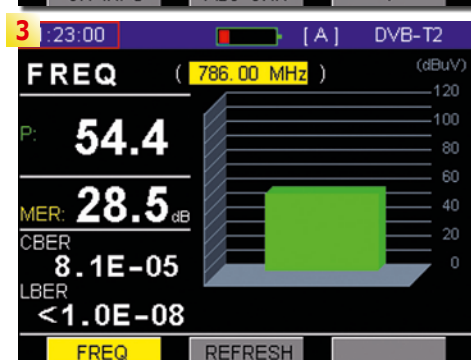
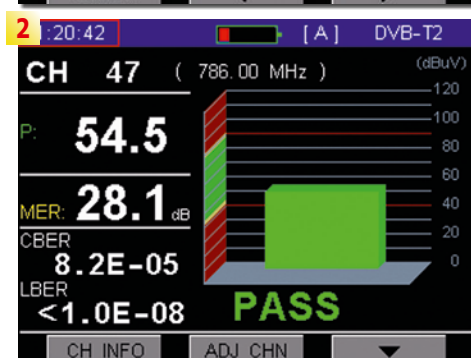
DEVISER

■ We presented the DS2400T professional meter in TELE-satellite 09-10/2012. The new version of this meter now also supports DVB-T2 signals. All remaining features and functions remained untouched and are dealt with in our previous test report:

www.tele-audiovision.com/TELE-satellite-1209/eng/deviser.pdf

- offers all measuring options a professional antenna installer needs
- among the highlights are MER measurements for each transponder, ground loop measurements and a remote measurement function
- excellent user interface and top-notch software features
- display with extremely high resolution, perfectly suitable for showing the spectrum and constellation diagrams
- one of the bonus features is long-term measurement of BER





7 Time/Unit Setting

Date and time

Date Format Set M/D/Y

☒ Current date and time in use

09.09.2013 17:16:02

Level Unit

☒ dBuV

☐ dBmV

☐ dBm

Temperature Unit

☒ °C

☐ °F

Shutdown Time Always ON

Download Default Cancel



MORE ABOUT THIS COMPANY

www.TELE-audiovision.com/TELE-audiovision-1307/eng/deviser.pdf



8

Upload
Download
Open
Save

A

ID	EACH	STD CH	Type	Freq	Audio18...	Enable	TR	DVB-C ML...	DVB-C SR	DVB-C Stand...	DVB-T Mode	DVB-T GUARD	DVB-T FFTM...	DVB-T coder...	DVB-T hierac...
58	20	20	TV	527.25	6.50	Y	N	---	---	---	---	---	---	---	---
59	21	21	TV	535.25	6.50	Y	N	---	---	---	---	---	---	---	---
60	22	22	TV	543.25	6.50	Y	N	---	---	---	---	---	---	---	---
61	23	23	TV	551.25	6.50	Y	N	---	---	---	---	---	---	---	---
62	24	24	TV	559.25	6.50	Y	N	---	---	---	---	---	---	---	---
63	139	239	TV	567.25	6.50	Y	N	---	---	---	---	---	---	---	---
64	140	240	DVB-T	570.00	6.00	Y	N	---	---	---	16QAM	1/32	8K	1/2	1
65	141	241	DVB-T	580.00	6.00	Y	N	---	---	---	16QAM	1/32	8K	1/2	1
66	142	242	DVB-T	594.00	6.00	Y	N	---	---	---	16QAM	1/32	8K	1/2	1
67	143	243	TV	599.25	6.50	Y	N	---	---	---	---	---	---	---	---
68	25	25	TV	607.25	6.50	Y	N	---	---	---	---	---	---	---	---
69	26	26	TV	615.25	6.50	Y	N	---	---	---	---	---	---	---	---
70	27	27	TV	623.25	6.50	Y	N	---	---	---	---	---	---	---	---
71	28	28	DVB-T	634.00	6.00	Y	N	---	---	---	16QAM	1/32	8K	1/2	1
72	29	29	TV	639.25	6.50	Y	N	---	---	---	---	---	---	---	---
73	30	30	TV	647.25	6.50	Y	N	---	---	---	---	---	---	---	---
74	31	31	TV	655.25	6.50	Y	N	---	---	---	---	---	---	---	---
75	32	32	TV	663.25	6.50	Y	N	---	---	---	---	---	---	---	---
76	33	33	TV	671.25	6.50	Y	N	---	---	---	---	---	---	---	---
77	34	34	TV	679.25	6.50	Y	N	---	---	---	---	---	---	---	---
78	35	35	TV	687.25	6.50	Y	N	---	---	---	---	---	---	---	---
79	36	36	TV	695.25	6.50	Y	N	---	---	---	---	---	---	---	---
80	37	37	TV	703.25	6.50	Y	N	---	---	---	---	---	---	---	---
81	38	38	TV	711.25	6.50	Y	N	---	---	---	---	---	---	---	---
82	39	39	TV	719.25	6.50	Y	N	---	---	---	---	---	---	---	---
83	40	40	DVB-T	730.00	6.00	Y	N	---	---	---	16QAM	1/32	8K	1/2	1
84	41	41	TV	735.25	6.50	Y	N	---	---	---	---	---	---	---	---
85	42	42	TV	743.25	6.50	Y	N	---	---	---	---	---	---	---	---
86	43	43	TV	751.25	6.50	Y	N	---	---	---	---	---	---	---	---
87	44	44	TV	759.25	6.50	Y	N	---	---	---	---	---	---	---	---
88	45	45	TV	767.25	6.50	Y	N	---	---	---	---	---	---	---	---
89	46	46	TV	775.25	6.50	Y	N	---	---	---	---	---	---	---	---
90	47	47	DVB-T2	780.00	6.00	Y	N	---	---	---	256QAM	1/16	32K	3/4	---
91	48	48	TV	791.25	6.50	Y	N	---	---	---	---	---	---	---	---
92	49	49	TV	799.25	6.50	Y	N	---	---	---	---	---	---	---	---
93	50	50	TV	807.25	6.50	Y	N	---	---	---	---	---	---	---	---
94	51	51	TV	815.25	6.50	Y	N	---	---	---	---	---	---	---	---
95	52	52	TV	823.25	6.50	Y	N	---	---	---	---	---	---	---	---
96	53	53	TV	831.25	6.50	Y	N	---	---	---	---	---	---	---	---
97	54	54	TV	839.25	6.50	Y	N	---	---	---	---	---	---	---	---
98	55	55	TV	847.25	6.50	Y	N	---	---	---	---	---	---	---	---
99	56	56	TV	855.25	6.50	Y	N	---	---	---	---	---	---	---	---
100	57	57	TV	863.25	6.50	Y	N	---	---	---	---	---	---	---	---

1. Main menu of the DS2400T from Deviser.

2. Signal measurement in DVB-T2 mode.

3. Frequency selection for signal measurement in DVB-T2 mode.

4. DVB-T2 also brings the 256-QAM modulation to this meter.

5. Measuring a very weak signal: The constellation diagram clearly demonstrates the low quality of the incoming signal.

6. This is what the constellation diagram looks like for a strong signal.

7. Meter setting in the Toolbox software.

8. Channel editor of the Toolbox software.



SPAUN

Socket Filter for Single Cable System According to EN50494

- ***blocks unwanted carrier numbers in a SCR system***
- ***fix setting of the carrier number for the connected SCR receiver***
- ***greatly enhances reliability of a SCR distribution system***
- ***makes finding a faulty receiver settings very easy***



Installing a reliable and error-free SCR distribution system

A Single Cable Router distribution system can feed up to 8 SCR satellite receivers, giving each of the receivers the full satellite IF signal with just one single Quattro LNB. How is it done? Switching between the 4 levels (Vertical and Horizontal, Low and High Band) is done by assigning each of the SCR receivers their unique carrier frequency to transmit the switching signals back to the LNB.

So far so good, the system works perfectly as long as each SCR receiver is indeed using its assigned carrier frequency. But then someone tampers with his receiver, or buys a new receiver without contacting the system's administrator, or does a re-set of his box. Eventually two SCR receivers in the system might end up using the same carrier frequency. The system becomes unstable and the installer is called in to find what's wrong. In order to locate the source of the mixup checking all SCR receivers is required, but how to get access to the receivers, when people are not at home, or on holiday or the

receiver can't be accessed for any other reason?

SPAUN invented a very easy solution to this problem: the SMA 8 F filter. This is a small box to be inserted between the subscriber's socket and the IF input connector of the SCR receiver. It does not filter the signal spectrum but prevents a receiver from interfering with other receivers connected to the same single cable line. The filter has a 8 pole DIP-switch, which needs to be set to the carrier's frequency number of the corresponding SCR receiver connected to this outlet. Now the filter passes only those

single cable commands that refer to the correct carrier frequency.

So, for example, if the end user accidentally reprograms his receiver to another carrier frequency which is assigned not to him but to his neighbor, the SMA 8 F will stop the improper commands generated by the receiver. In this way, it will block them from entering the line and interfering with another user's reception. The same holds true

if the end user reconfigures his receiver to a universal LNB rather than a single cable signal. Of course, the user who tampered with the settings of his receivers will lose the reception but not one of his neighbors will suffer. And it will be very easy for the installer to fix the situation, as he can easily check the SMA 8 Filter for the assigned carrier frequency number and then adjust the SCR receiver accordingly.





VIP
Card

Tested & Recommended Product by
TELE-audiovision International
The World's Largest Digital TV Trade Magazine



TELE

audiovision

AWARD

01-02/2014

SPAUN SMA 8 F

Enables the creation of an error-tolerant
SCR distribution system

www.TELE-audiovision.com/14/01/spaun



Microwave Filter Company, Inc.

**MFC offers a full range of filters & components
for Satcom and Broadcast applications**

C-Band (All Bands - Worldwide)

WiMAX & Radar Eliminator
Transmit Reject
Receive Reject
Single Channel Bandpass



WiMAX & Radar Eliminator



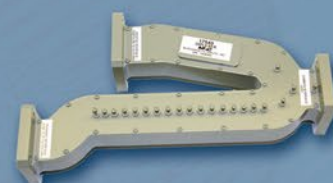
Transmit Reject

Ku-Band (All Bands - Worldwide)

Transmit Reject & Receive Reject
Multi-band Reject
Diplexers



Transmit Reject



Diplexer

K/Ka-Band (18-40 GHz)

Transmit Bandpass & Receive Bandpass

X-Band (7.25-8.4 GHz)

Transmit Reject & Receive Reject



Transmit Reject



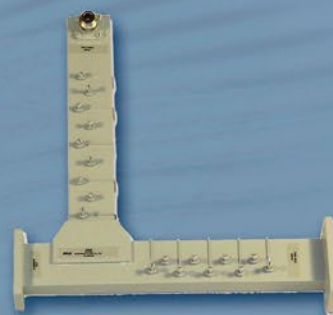
Receive Reject

Broadcast (DTV & FM)

DTV Transmit Mask
Multi-Channel Combiners
Single Channel Preselectors
DTV Adjacent Channel Eliminator
FM Adjacent Channel Notch
Harmonic Lowpass



DTV Transmit Mask



BAS (7 GHz) / ISM (5.8 GHz) Diplexer

Auxiliary Services (Broadcast)

BAS (2 GHz) - Full Band & Single Channel Bandpass
BAS (7 GHz) / ISM (5.8 GHz) Diplexer

STL (950 MHz) - Single Channel Bandpass
STL (950 MHz) - Multi-Channel Ferrite Combiners
STL (950 MHz) / ISM (900 MHz) Diplexer

E-Mail: mfcsales@microwavefilter.com

Tel: (315) 438-4700 • Fax: (315) 463-1467

RoHS Compliant • An ISO 9001:2008 Registered Company

Established in 1967

www.microwavefilter.com

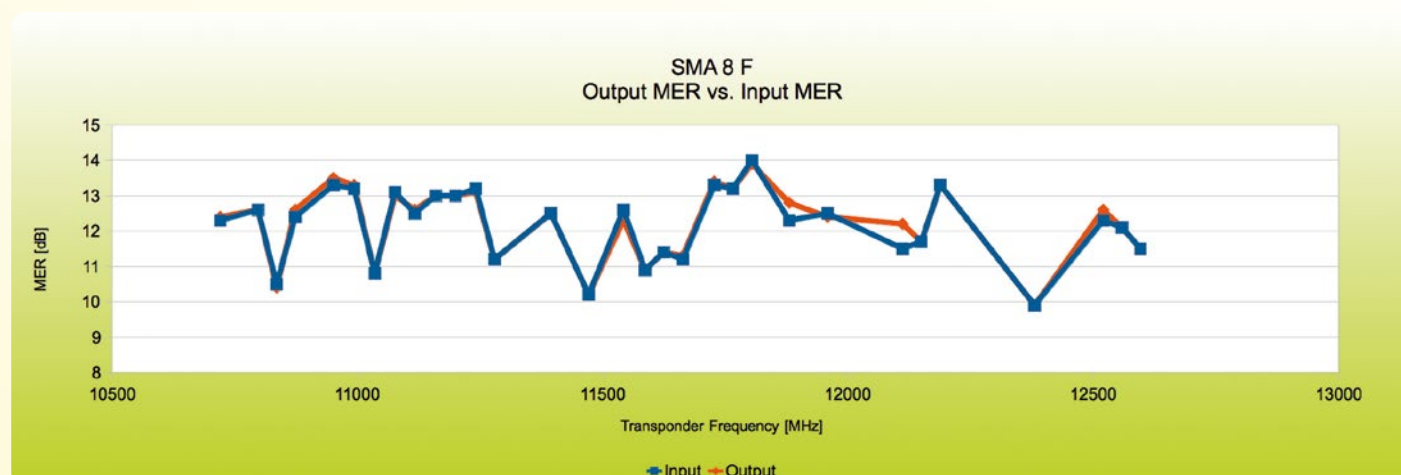
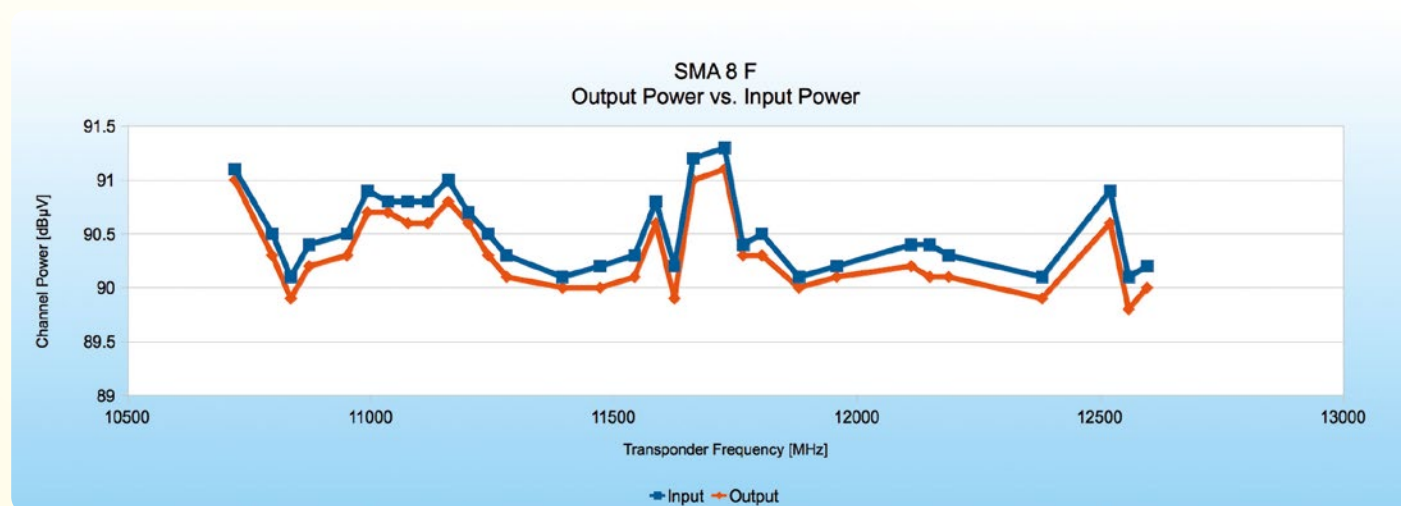
In our TELE-audiovision test we checked performance of the SMA 8 Filter. After we confirmed that it was working as expected we then took some measurements to see if the satellite signal itself is not af-

fected. As can be seen in our graphs, neither signal strength nor its quality were affected. So there are absolutely no penalties in using this device and at the same time this small filter improves the reliability of any

SCR distribution system and makes it practically error free, since only the receiver which does not work needs to be checked and the installer can rest assured that the remaining parts of the system will be not affected

at all by any wrong configurations anywhere in the SCR distribution system.

This yet simple but so useful device invented by SPAUN greatly enhances any SCR distribution system for best performance.





Guangxi Lianxing Satellite Co.,Ltd

The company for manufacturing and researching satellite antenna dishes

The staff of Lianxing
is striving to fulfill our goal
to satisfy our customer.

**Contact us
with confidence!**



P180L6-1



S035W-3



S060L-2



S045L-1



S045W-1



S060W-1



Accessories

Excellent products of C band
antennas at 1.4m, 1.45m, 1.5m, 1.8m,
offset satellite receiver antennas of band KU
at 0.45m, 0.6m 0.75m 0.9m,1.2m.

www.gxlianxing.com

Guangxi Lianxing Satellite Co.,Ltd.

Tel: +86-773-6259228 | Fax: +86-773-6259234 | Email: root@gxlianxing.com | Web: <http://www.gxlianxing.com>
Address: Guixing Village, Xing'an Town, Guilin City, Guangxi Province, China Postal Code: 541308

PerfectVision's "F" Connector Program



- **Completely secure cable connections**
- **Watertight for exterior applications**
- **Suitable for professional installations**
- **Perfect connector installation through use of corresponding tools**
- **Large selection of connectors for various types of cables**



High-Quality „F“ Connectors for Professional Applications

We here at TELE-audiovision are always happy to see companies go against the general trend towards cheaper, lower-quality mass-produced products and still manage to be economically successful.

An excellent example of this is the company PerfectVision out of Little Rock, Arkansas in the USA. Founded by Terry Fleming in 1979, the company today has sales totaling roughly \$400 million a year with their line of

coax cable, connectors, test equipment and accessory products in the telecommunication industry.

In their more than 30 years of existence, the company can boast over 25 different patents - this number all by itself highlights how innovative this company is.

The number one objective of this company is to produce and market high quality products in large quantities at affordable prices.

Naturally, PerfectVision has all of the necessary control processes already in place, such as, continuous quality control during production, strict inspection of all the incoming raw materials as well as accurate trace-

ability of each product.

In order to be able to prove this to the customer, PerfectVision adheres to all of the following national and international standards: ISO 9001, ISO 2000, ISO 14000, UL E341555, UL E342531, UL E343972, UL



■ PV100 installation tool



■ VT200 installation tool



■ PV6-PV



■ PV6UE-UM

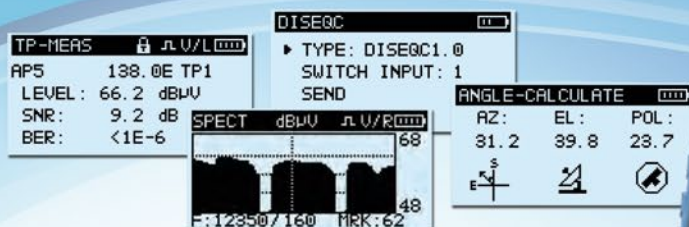


■ PV6UE-05



■ PV6U-EUR





S30✓ Satellite Meter

- Supports DVB-S/S2
- C, Ku, Ka or L band
- MER and BER
- Spectrum function
- Supports DiSeQc 1.0/1.1
- Signal level and quality display together
- 128x64 matrix LCD with back-lighted
- Large lithium battery capacity, over 4 hours working time
- Software upgrade and parameter set via USB interface

S7000✓ TV Analyzer

- All standards in one: QAM(J.83A/B/C), 8VSB, DVB-T/H/T2, DVB-S/S2
- Digital/Analog TV and Satellite TV analysis
- MPEG2 Transport stream analyzer and monitoring via TS-ASI input & RF input
- Fast spectrum analysis with 5~2150 MHz frequency span
- DSP Technology to support different Video decoding: MPEG-2, MPEG-4 and H.264 for 1080i, 720p and 576i, support PAL/NTSC/SECAM color system
- Support SD&HD Video format
- CI module (Common Interface) for encrypted channels
- TS-ASI input and output
- TS record and TS replay
- IPTV analysis option
- GPS option
- HDMI, LAN and USB interface
- Easy to use
- High resolution 7" TFT LCD with bright display for indoors and outdoors use
- W245xH194xL105, light weight
- Working time >5 hours (battery)





1. Coax cable stripping tool

2. This is what a correctly stripped triple shielded cable looks like

3. This is what a correctly stripped quad shielded cable looks like

4. Inserting the "F" connector onto the coax cable

5. Clamping of the cable and connector into the installation tool

6. The assembled "F" connector on the coax cable provides for an excellent electrical connection, an extremely tight hold on the cable as well as optimal protection from dirt and moisture.

7. At the moment the "F" connector is only placed on the coax cable; only with the help of the installation tool will it be permanently clamped onto the cable.



2

E344384, SARFT, UL-CSA, RoHS and SGS Ethnic Audit, Thomson QMS/GE EHS certification as well as Riser certification.



3

Especially important for PerfectVision was and still is the subject of compatibility and that's not only for their own product assortment but also for the products of other manufacturers. Finally, the user should not be com-

pelled to completely upgrade to PerfectVision products all at once, rather, it's the quality of the products in combination with existing hardware that should convince them that this would be the right move for the future.

During the course of our many visits to trade fairs, we learned about the company PerfectVision for very simple practical reasons. It wasn't only the numerous letters and e-mails we received from our readers, it was also our own experience with shoddy coaxial cable connections here at our test center. Thankfully, PerfectVision, a company that offers an innovative solution for this problem, came along just at the right time.

Before we get into any further details, we want to take a quick look at the underlying problem: over the past several years we believe that there has been more and more of an influx of a type of „F“ connector that is

screwed onto the coax cable. These „F“ connectors have internal threads that ideally would grab and securely hold the connector to the outer jacket of the cable.

In reality though, the situation is quite different. The screwed on connectors only appear to be securely attached to the cable, however if you were to give a firm yank on the end of the connector, it'll pop right off the end of the cable.

Not only that, these types of screw-on „F“ connectors don't provide adequate protection against moisture; this leads to premature corrosion and ultimately interference in signal transmission.

Some of our readers might suggest that you should simply screw the „F“ connector back onto the cable or retighten a loose one. While in principle this is the right thing to do, you should still keep two things in mind:

a) as long as the antenna is easily accessible in the backyard or on a balcony,



4



5



6



7

VIP
Card

Tested & Recommended Product by
TELE-audiovision International
The World's Largest Digital TV Trade Magazine



TELE
audiovision
AWARD
03-04/2013

Tsinghua GT-278
Rock solid receiver with
excellent responsiveness

www.TELE-audiovision.com/13/03/tsinghua

Tsinghua

NEW: GT-278+



DTMB + AVS

The Best DTMB + AVS Receiver for HD

- Very fast switching
- Very fast OSD display
- With PVR function
- Medium storage connected
- Excellent multimedia functions
- HD MPEG4 / H.264
- Supports DTMB and AVS
- 换台快捷
- OSD显示和响应迅速
- 支持PVR刻录
- 强大的多媒体功能



GT-278

高清晰度國標地面數字電視機頂盒

USB HDMI DTV



<http://aluosat.taobao.com/>



this type of repair would obviously not be a problem. But if it's in a less accessible location such as on a roof, then the picture looks completely different.

b) Problems with screw-on „F“ connectors would be nothing short of fatal for a professional installer. Not only because such a repair would have to be handled under warranty, but also because this would damage the professional image of the installer.

Considering all this, you'd have to ask yourself why you would opt for such a low-quality type of „F“ connector when there are companies like PerfectVision that offer long-lasting, exceptionally stable and extremely easy to install „F“ connectors for a comparatively low price?

We decided to have a closer look at the „F“ connectors labeled PV6U-EUR, PV6UE-05, PV6UE-UM and PV6-PV as well as the corresponding PV100 and VT200 installation tools.

The first question is: what's the best way to strip the coax cable? If you want it as easy and as comfortable as possible, you can use special stripping tools (see Figure 1), but this task is also quite easy to do even without these special tools. Using a sharp knife, carefully cut off about 15mm (0.6 inches) of the outer jacket of the cable. With quad shielded cable the wire mesh was turned over and the insulation under-

neath was removed.

If you have triple shielded cable, this step is eliminated. The now exposed wire is not folded back and the insulator underneath is kept in place. It should lie as close as possible to the dielectric (the insulation layer around the inner copper conductor in the center of the cable).

Now only about 7mm (about 1/4 inch) of the dielectric is removed thereby exposing the inner copper conductor. The PerfectVision compression connector is then placed carefully over the coax cable until the dielectric is flush with the „F“ connector's feed-through hole. The center copper conductor should be sticking out about 2-3mm (about 1/8 inch) from the „F“ connectors opening.

Once you're sure that the cable was properly prepared and is sitting correctly in the compression tool, a hefty squeeze of the tool's handle is all that's needed to push the two halves of the „F“ connector together and compress the cable in between.

The resulting connection between the connector and the cable has excellent electrical conductivity and also provides the inside of the connection with perfect protection from moisture.

And in case you can't quite recognize it in these pictures, both of these tools come with a small hole that allows the inner copper conductor to poke through without being damaged while the „F“ connector is being attached.

8. The PV6-PV on a triple shielded coax cable

9. The PV6U-EUR on a quad shielded coax cable

10. The PV6UE-05 on a somewhat stronger, triple shielded coax cable

11. The PV6UE-05 on a quad shielded coax cable – the internal opening of this connector is almost too small for this particular cable

12. The PV6UE-UM on a somewhat stronger, triple shielded coax cable

13. The PV6UE-EUR on an especially stronger, quad shielded coax cable – the internal opening of this connector is almost too small for this particular cable

The USB-2 VHF/UHF Modulator that can drive any receiver



DTU-215-GOLD

**Connect to your PC...
and test drive any
cable or terrestrial
digital-TV receiver**

**Fully agile from
36 to 1002MHz**

**Channel simulator
included**

DekTec's USB modulator DTU-215-GOLD is an option-packed compact modulator that can cope with any cable or terrestrial modulation standard used throughout the world, including DVB-T2, DVB-C2 and ISDB-T. The modulator comes with streamer software that can run on a PC or laptop. The RF output of the modulator can be connected directly to the antenna input of a digital-TV receiver. As it is powered from the USB-2 bus, no external power adapter is required. This modulator is the ideal tool for demonstrations, research and development and to test drive setup boxes and decoders. For more information visit our website where you also will find our local resellers worldwide.

DeKtec
www.dektec.com



In our tests we were able to successfully test all the PerfectVision connectors without any problems.

And the two installation tools left us with an exceptionally solid and high-quality impression.

This was not only confirmed during the course of our tests, the quality of the connectors and the installation tools far exceeded our expectations.

Next we'll present the individual connectors that we tested in much greater detail as well as exact product features.

PV6-PV: This „F“ connector fits on any triple shielded 75 Ohm coax cable and provides a good hold on the cable thanks to its well thought out construction. The ribbed center ring provides the user with a solid grip of the connector. The PV6-PV is designed to be used in the 2 MHz to 3 GHz range and its

shielding is rated at around -90dB. Since this connector is manufactured to the SCTE standard, it can be used not only indoors, it can also be used outdoors thanks to its weather resistance and moisture protection.

PV6UE-05: Thanks to its slightly larger size, this „F“ connector can be easily used with somewhat stronger triple shielded 75 Ohm coax cable. Of course, the PV6UE-05 is also manufactured to the same SCTE standard and is thus also perfectly suitable for use in outdoor applications.

Thanks to the secure O-rings the manufacturer achieves the highest possible integrity that protects the coax cable's inner conductor as well as the wire mesh shielding from dirt and moisture. This connector is nickel-coated (as is the PV6-PV) to help protect it from corrosion.





The PV6UE-05 is suitable for use in the 2 MHz to 3 GHz range and its shielding is rated at more than -90dB.

PV6UE-UM and PV6UE-

EUR: These connectors were designed for professional applications involving the use of quad-shielded coax cable. There are differences between the two: to start

with, the PV6UE-UM is completely nickel-plated while the PV6UE-EUR has a center ring made out of plastic.

Compared to a metal ring, this - coupled with its ribbed surface - has the advantage of providing the installer with a better grip on the connector while working.

In addition the opening through the PV6UE-EUR's inner ring is somewhat larger making it especially suitable for heavy shielded coax cable.

Both connectors are suitable for use in the 2 MHz to 3 GHz range and the shielding is rated at better than -90dB.

Besides „F“ connectors, PerfectVision also offers two ideally suited versions of their installation tools.

The PV100 is designed to be used with RG6 connectors like the PV6UE-05 but will also work with any other connector that has a compression depth of 21mm (about 0.8 inches). All of the „F“ connectors we tested corresponded to this type of construction.

The PV100 is characterized in particular by its high quality workmanship; it is made from steel components with the handles covered in plastic grip that is comfortable and slip-resistant.

The VT200 tool is also made out of high-quality steel components with slip-resistant handle covers. This tool can work with larger „F“ connectors that have higher compression depths.

Thanks to the removable „F“ connector holder, this tool can also be used with „F“ connectors that have 21mm (0.8-inch) compression depths.

Overall we here at TELE-audiovision enjoyed taking a closer look at PerfectVision's assortment of „F“ connectors and installation tools. The old saying, „Quality Comes at a Price“, is really only partially true here. Thanks to larger production quantities, PerfectVision is able to provide high-quality products at comparatively lower prices, and that of course makes the end user very happy.

EXPERT
OPINION

Perfect Vision
F- Connectors for Coax Cable

RECOMMENDED
PRODUCT BY ▼



TELE-audiovision
THE WORLD'S LARGEST DIGITAL TV TRADE MAGAZINE



Thomas Haring
Test Center
Austria

VIP

CARD

TELE
audiovision
www.TELE-audiovision.com

+ PerfectVision offers an exceptionally large assortment of „F“ connectors for all different types of coax cable as well as the necessary high-quality installation tools. The workmanship as well as the materials reflect the highest standards and are therefore a ‚must have‘ for every professional installer.

- None

AWARD WINNING

**DIGITAL
RECEIVERS OF
21ST CENTURY**

这些是获得最高奖的产品





Manufacturer	Skyworth
Website	www.skyworthdigital.com
Function	Twin Tuner Satellite Receiver with PVR function
DVB-S2/LAN	• / •
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	• / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/14/01/skyworth
Read TELE-audiovision Test Report



SKYWORTH



Manufacturer	AB IPBox
Website	www.abipbox.com
Function	HDTV PVR Satellite Receiver with Internet Media Center
DVB-S2/LAN	— / •
PVR	•
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/11/abipbox
Read TELE-audiovision Test Report



AB IPBOX



Manufacturer	Amiko
Website	www.amikostb.com
Function	Miniature DVB-S / DVB-S2 PVR Receiver with external IR remote control
DVB-S2/LAN	• / •
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/11/amiko
Read TELE-audiovision Test Report



AMIKO



Manufacturer	Icecrypt
Website	www.icecrypt.com
Function	2 x DVB-S2 & DVB-T / DVB-C PVR HDTV Receiver
DVB-S2/LAN	• / •
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	• / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/11/icecrypt
Read TELE-audiovision Test Report



ICECRYPT



Manufacturer	Gotech
Website	www.gotechcn.com
Function	DVB-S2 & ISDB-T Combo Receiver
DVB-S2/LAN	• / •
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	• / •



MKTECH



TELE-audiovision
International
Magazine

**Expert
Opinion**

www.TELE-audiovision.com/13/09/mktech
Read TELE-audiovision Test Report

Manufacturer	TBS Tenow
Website	www.tbsdtv.com
Function	DVB-S2 compatible Twin Tuner Streamingbox
DiSEqC	1.0 / 1.1
DVB-S2/LAN	• / •
PVR	•
S-Video/HDMI	— / —
Scart/Digital Audio	— / —



TENOW



TELE-audiovision
International
Magazine

**Expert
Opinion**

www.TELE-audiovision.com/13/07/tenow
Read TELE-audiovision Test Report



Manufacturer	Gotech
Website	www.gotechcn.com
Function	DVB-S2 Satellite Receiver
DVB-S2/LAN	• / •
Channel Memory	unlimited
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
S-Video/HDMI	— / •
Scart/Digital Audio	• / •



MKTECH



TELE-audiovision
International
Magazine

**Expert
Opinion**

www.TELE-audiovision.com/13/07/mktech
Read TELE-audiovision Test Report



Manufacturer	Changhong
Website	www.changhong.com
Function	DVB-C Receiver, Mediaplayer, Android Apps
DVB-S2/LAN	— / •
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



CHANGHONG



TELE-audiovision
International
Magazine

**Expert
Opinion**

www.TELE-audiovision.com/13/05/changhong
Read TELE-audiovision Test Report



Manufacturer	Panodic
Website	www.panodic.com
Function	DVB-T / DVB-T2 Receiver
DVB-T2/LAN	• / —
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	• / —



TELE-audiovision
International
Magazine

Expert Opinion

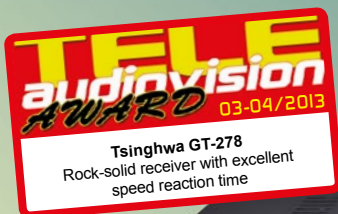
www.TELE-audiovision.com/13/03/panodic
Read TELE-audiovision Test Report



PANODIC



Manufacturer	Tsinghua
Function	DTMB Receiver
LAN	—
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



TELE-audiovision
International
Magazine

Expert Opinion

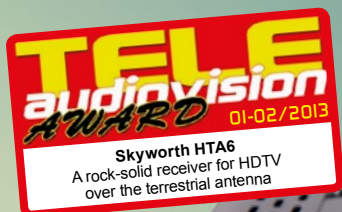
www.TELE-audiovision.com/13/03/tsinghua
Read TELE-audiovision Test Report



TSINGHWA



Manufacturer	Skyworth
Website	www.skyworthdigital.com
Function	DVB-T / DVB-T2 HDTV Receiver
DVB-T2/LAN	• / —
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	— / —



SKYWORTH



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/01/skyworth
Read TELE-audiovision Test Report



Manufacturer	Jiuzhou
Website	www.jiuzhou.com.cn
Function	DVB-T & Android STB
DVB-S2/LAN	— / •
PVR	•
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



JIUZHOU



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/jiuzhou
Read TELE-audiovision Test Report



Manufacturer	Panodic
Website	www.panodic.com
Function	DVB-S / DVB-S2 Receiver
DVB-S2/LAN	• / —
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
S-Video/HDMI	— / •
Scart/Digital Audio	• / —



PANODIC



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/panodic
Read TELE-audiovision Test Report



Manufacturer	AZBox
Website	www.azbox.com
Function	HDTV DVB-S/DVB-S2 Miniature HDTV Linux Receiver with Multimedia Features
DVB-S2/LAN	• / •
Channel Memory	unlimited
DiSEqC	1.0 / 1.1 / 1.2 / 1.3 / USALS
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



AZBOX



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/09/azbox-mini-me
Read TELE-audiovision Test Report



Manufacturer	Panodic
Website	www.panodic.com
Function	Small DVB-T HD PVR Receiver
DVB-S2/LAN	— / —
DiSEqC	—
S-Video/HDMI	— / •
Scart/Digital Audio	• / —



PANODIC



TELE-audiovision
International
Magazine

Expert
Opinion

www.TELE-audiovision.com/12/07/panodic
Read TELE-audiovision Test Report



Manufacturer	Panodic
Website	www.panodic.com
Function	DVB-T Mini Receiver with HDMI and PVR
DVB-S2/LAN	— / —
DiSEqC	—
S-Video/HDMI	— / •
Scart/Digital Audio	— / —



PANODIC



TELE-audiovision
International
Magazine

Expert
Opinion

www.TELE-audiovision.com/12/05/panodic
Read TELE-audiovision Test Report

CHINA



Aluo Consulting 阿罗顾问
Export Digital TV Products from China

LUO SHIGANG
President

#15, Feringa Str, 2nd Floor, Room D14
85774 Munich-Ufg, GERMANY

Tel: +49-151-40405196
Fax: +49-89-92185023
Email: luo.shigang@Aluo-Consulting.de
Website: www.Aluo-Consulting.de

LOOKING FOR A SET TOP BOX MANUFACTURER?

Contact AluoConsulting
luo.shigang@Aluo-Consulting.de

We help you find the manufacturer in China
that matches your needs and requirements

Contact us with your specifications and we
do the rest

Aluo Consulting 阿罗顾问
Export Digital TV Products from China

AWARD WINNING

**SIGNAL
ANALYZERS OF
21ST CENTURY**

这些是获得最高奖的产品





TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/14/01/deviser
Read TELE-audiovision Test Report

Manufacturer	Tianjin Deviser Electronics Instrument
Website	www.devisertek.com
Function	Professional Meter for DVB-T, DVB-T2, DVB-C
Frequency Range	5 ~ 1052 MHz
Video Output	—
Built-in Monitor	320 × 240 TFT display



TELE
audiovision
AWARD 01-02/2014

DEVISER DS2400T
Well equipped for the measurements
in all terrestrial DVB standards

DEVISER



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/09/horizon
Read TELE-audiovision Test Report

Manufacturer	Horizon Global Electronics
Website	www.horizonhge.com
Function	Digital Meter DVB Signals
Frequency Range	51 ~ 858 MHz
Video Output	—
Built-in Monitor	LCD display



TELE
audiovision
AWARD 09-10/2013

HORIZON HD-CM+ for DVB-C
Extremely easy to operate,
for professional installers

HORIZON



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/09/deviser

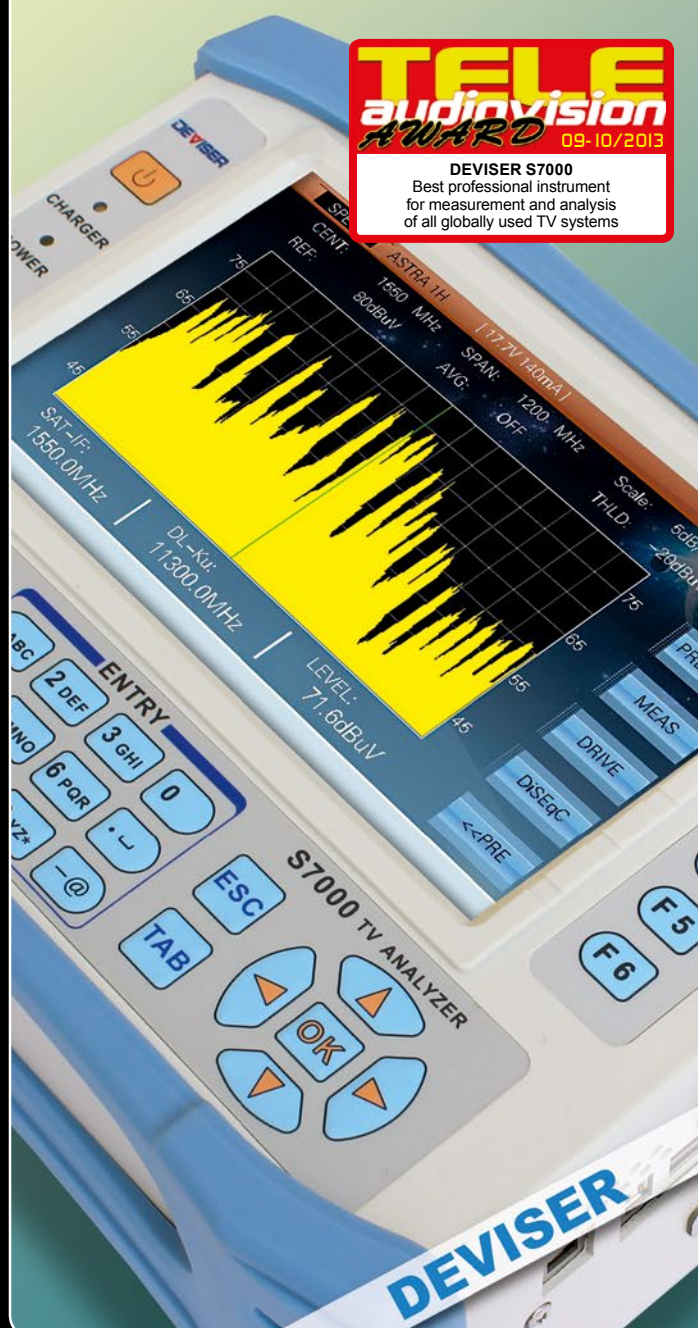
Read TELE-audiovision Test Report

Manufacturer	Tianjin Deviser Electronics Instrument
Website	www.devisertek.com
Function	Professional TV Signal Analyzer
Frequency Range	5 - 1050 MHz (TV); 950-2150 MHz (Satellite)
Video Output	HDMI
Built-in Monitor	7" TFT LCD, 800x480 pixels

TELE
audiovision
AWARD 09-10/2013

DEVISER S7000

Best professional instrument
for measurement and analysis
of all globally used TV systems



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/05/deviser

Read TELE-audiovision Test Report

Manufacturer	Tianjin Deviser Electronics Instrument
Website	www.devisertek.com
Function	Satellite Antenna Meter
Frequency Range	950~2150 MHz
Video Output	—
Built-in Monitor	LCD display

TELE
audiovision
AWARD 05-06/2013

DEVISER S30

Highly accurate handheld meter optimized
for the satellite dish installer





TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/03/horizon
Read TELE-audiovision Test Report

Manufacturer	Horizon Global Electronics
Website	www.horizonhge.com
Function	Digital Satellite Meter for DVB-S and DVB-S2 Signals
Frequency Range	950 ~ 2150 MHz
Video Output	—
Built-in Monitor	LCD display



TELE
audiovision
AWARD 03-04/2013
HORIZON Nano-S2
Very easy to use instrument
for quick installation of satellite
for HDTV reception

Nano-S2
HORIZON



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/satlink
Read TELE-audiovision Test Report

Manufacturer	Fujian Baotong
Website	www.sat-link.com.cn
Function	Digital Meter & Receiver for DVB-S and DVB-T Signals
Frequency Range	47 ~ 862 MHz & 950 ~ 2150 MHz
Video Output	yes
Built-in Monitor	4.3 inch display



TELE
audiovision
AWARD 11-12/2012
Satlink WS-6936
Very easy to use signal meter
which also serves as receiver.

SATLINK



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/horizon

Read TELE-audiovision Test Report

Manufacturer	Horizon Global Electronics
Website	www.horizonhge.com
Function	Digital Meter for Analogue, DVB-T and DVB-T2 Signals
Frequency Range	48 ~ 862 MHz
Video Output	—
Built-in Monitor	LCD display



TELE
audiovision
AWARD 11-12/2012

HORIZON HD-T2
One of the world's first DVB-T2 signal
analyzers with exceptional data

HORIZON



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/deviser

Read TELE-audiovision Test Report

Manufacturer	Tianjin Deviser Electronics Instrument
Website	www.devisertek.com
Function	Optical Power Meter
Frequency Range	-43 dBm ~ +25 dBm
Video Output	—
Built-in Monitor	LCD display



TELE
audiovision
AWARD 11-12/2012

DEVISER AE 120
Optical Power Meter
Extremely simple to use but
at same time very accurate

DEVISER



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/05/spaun
Read TELE-audiovision Test Report

Manufacturer	SPAUN Electronic
Website	www.spaun.com
Function	DVB-S/DVB-S2 and DSS Signal Analyzer
Frequency Range	950-2150 MHz
Video Output	—
Built-in Monitor	4.3" TFT LCD display (16:9)



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/01/horizon
Read TELE-audiovision Test Report

Manufacturer	Horizon Global Electronics
Website	www.horizonhge.com
Function	Satellite and terrestrial antenna meter
Frequency Range	45-861 MHz (terrestrial) and 950-2150 MHz (satellite)
Video Output	—
Built-in Monitor	LCD display



The Best Way to Partner with TELE-audiovision Magazine

怎样与TELE-audiovision 杂志建立优质合作关系

Reliability 可靠
Continuity 持续
Accountability 担当

Trust
信任



杂志开始于1981年，现在是世界上最大的数字电视行业

The only way to survive in the oversupply world that exists today is to offer more to your customers than what other manufacturers offer. And this philosophy should not be limited to just the products that you produce, but in everything else that is involved in the making of those products. And the end result? The customers will recognize the long-term advantage of ONLY purchasing YOUR products. They will know that your company will still exist next week, next month, next year. These days products require frequent updates. In the continuously developing digital world, firmware and software need to be regularly upgraded to add new features and to improve on existing features.

在这个供过于求的世界上，供应商唯一的生存之道就是提供其他竞争对手所没有的东西。这不仅是产品本身，还有一个简单产品背后实力的展现。这意味着您的客户将知道：在这个瞬息万变的电子世界里，他的供应商将日复一日，年复一年的为他提供专业的人性化服务；精准的硬软件调试；实时的新功能升级。

You can ensure your continued success by continuously impressing upon existing and potential customers your never-ending dedication to your products.

要保证持续竞争力不仅要关注产品本身，最好的广告是让您的现有客户和潜在客户都看到您为做好您的产品付出了什么。

Advertise your products in each issue of TELE-audiovision. This is the best way to reach out to your customers. You will earn their long-term trust by consistently presenting your business and products to all the professional TELE-audiovision Magazine readers from around the world

与TELE-audiovision 携手同行，通过这本全球发行量最大，最专业的业界杂志，让全球的业内人士看看：您，为您的产品，付出了多少！

www.TELE-audiovision.com/ads

TELE-audiovision Magazine

TELE
audiovision

Directly to Your Office
by ***courier service***

Service Costs per Year (6 Magazines/Year):

TELE-audiovision Magazine

6 x US\$ 17

US\$ 102

Courier Service

6 x US\$ 86

US\$ 516

Handling Charges

6 x US\$ 14

US\$ 84

Total Costs Subscription by Courier Service Anywhere in the World

US\$ 702



Send Order to: **subscription@tavmag.com**

AWARD WINNING

21
IPTV/WebTV
RECEIVERS OF
1ST CENTURY

这些是获得最高奖的产品





Manufacturer	AB IPBox
Website	www.abipbox.com
Function	HDTV PVR Satellite Receiver with Internet Media Center
DVB-S2/LAN	— / •
PVR	•
DiSEqC	1.0 / 1.1 / 1.2 / 1.3
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/11/abipbox
Read TELE-audiovision Test Report

AB IPBOX

Manufacturer	TBS Tenow
Website	www.tbsdtv.com
Function	DVB-S2 compatible Twin Tuner Streamingbox
DiSEqC	1.0 / 1.1
DVB-S2/LAN	• / •
PVR	•
S-Video/HDMI	— / —
Scart/Digital Audio	— / —



TELE-audiovision
International
Magazine

Business Voucher

www.TELE-audiovision.com/13/07/tenow
Read TELE-audiovision Test Report

TENOW

Manufacturer	D-Link
Website	www.dlink.com
Function	Internet Streaming Box
WIFI/LAN	• / •
Internal Storage	no
HDTV	yes (up to 1080p)
CVBS/HDMI	— / •
USB/SD Card	• / •

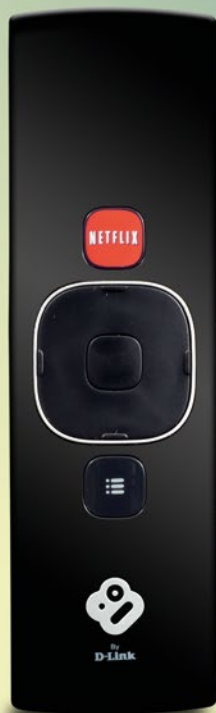


TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/07/boxee

Read TELE-audiovision Test Report



BOXEE

Manufacturer	Netgear
Website	www.netgear.com
Function	Streaming Player
WIFI/LAN	• / •
Internal Storage	no
HDTV	yes (up to 1080p)
CVBS/HDMI	— / •
USB/SD Card	— / —



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/05/netgear

Read TELE-audiovision Test Report



NETGEAR



Manufacturer	Roku
Website	www.roku.com
Function	Streaming Player
WIFI/LAN	• / —
Internal Storage	no
HDTV	yes (up to 1080p)
CVBS/HDMI	• / •
USB/SD Card	— / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/03/roku
Read TELE-audiovision Test Report



ROKU



Manufacturer	Lookeetv
Website	www.lookeetv.com
Function	Multimedia Player for local media and Internet
WIFI/LAN	• / •
Internal Storage	yes, 1.14 GB
HDTV	yes (up to 720p)
CVBS/HDMI	• / •
USB/SD Card	• / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/lookee
Read TELE-audiovision Test Report



LOOKEETV





Manufacturer	AZBox
Website	www.azbox.com
Function	HDTV DVBS2 Miniature HDTV Linux Receiver with Multimedia Features
DVBS2/LAN	• / •
Channel Memory	unlimited
DiSEqC	1.0 / 1.1 / 1.2 / 1.3 / USALS
S-Video/HDMI	— / •
Scart/Digital Audio	— / •



TELE-audiovision
International
Magazine

**Expert
Opinion**

www.TELE-audiovision.com/12/09/azbox-mini-me
Read TELE-audiovision Test Report

Manufacturer	Logitech
Website	www.logitech.com
Function	IPTV Receiver



TELE-audiovision
International
Magazine

**Expert
Opinion**

www.TELE-audiovision.com/12/03/googletv
Read TELE-audiovision Test Report



LOGITECH



Manufacturer	Jiuzhou
Website	www.jiuzhou.com.cn
Function	IPTV Set-Top-Box
Stream Protocol	UDP
Menu Standards	HTML4, Javascript 1.5, Java Virtual Machine
WLAN	• (via USB stick)



**TELE-audiovision
International
Magazine**

**Expert
Opinion**

www.TELE-audiovision.com/11/01/jiuzhou
Read TELE-audiovision Test Report



JIUZHOU DTP8300
IPTV Receiver Equipped
with Top-Notch Technology




JIUZHOU

HORIZON

For a reliable solution!

Winners of the Queen's award for international trade 2007, Horizon Global Electronics is a UK Company established in 2001 specialising in the design and manufacture of hand held test equipment for the digital satellite and TV sector. Our strength lies in being able to find innovative solutions to leading technology issues.

Introducing the HD-CM+

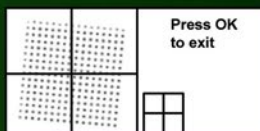
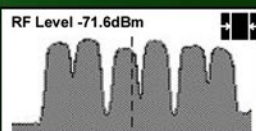


The new Horizon HD-CM+ meter is the ideal cost effective cable installation and cable diagnostic tool for today's demanding cable television installation environments.

The HD-CM+ offers many features like fast channel scan, leakage and ingress detection, spectrum display, data logging, slope test, constellation display and expanded constellation. These features are typically found on much more expensive analysers.

Fast and accurate, with a long battery life, the HD-CM+ has been designed with the installer in mind, providing maximum flexibility and ease of use. The HD-CM+ is your complete solution for downstream analysis.

The HD-CM+ comes with everything you need to get started. A carry case (with tool pocket), USB cable for channel plan downloads, AC cord for mains charging (internal charger), DC cord for in vehicle charging, protective splash cover and field replaceable F connector input.



Phone:
+44 (0)1279 417 005
Email:
sales@horizonhge.com

www.horizonhge.com

AWARD WINNING



THE BEST
CABLE TV
EQUIPMENT OF
21ST CENTURY

这些是获得最高奖的产品



Manufacturer	macab
Website	www.macab.tv
Model	Macab Catline TVB-02
Function	TV to RJ-45 filter with a built in adjustable, high performance amplifier with equalizer
Frequency range	47-862 MHz
Flatness	±0,75 dB
Impedance	Input: 75 Ohm; Output: 100 Ohm
Gain (47-860MHz)	35 dB (max)
Noise	<8 dB
Output level	122 dBµV (DIN45004B); 107 dBµV (42Ch CENELEC)
Connectors	Input: F-female; Outputs: RJ-45 female



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/14/01/macab
Read TELE-audiovision Test Report



MACAB



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/14/01/spaun
Read TELE-audiovision Test Report

Manufacturer	Spaun
Website	www.spaun.com
Model	SPAUN SMA 8 F
Function	Filter for SCR Distribution System
Inputs/Outputs	1/1
Through loss	1 dB
Ambient temperature	-20 ... +50 °C
Dimension (mm)	61 x 49 x 19



SPAUN

Manufacturer	Perfect Vision
Website	www.perfect-vision.com
Model	PV6-PV, PV6UE-UM, PV6UE-05, PV6U-EUR
Function	F Connectors for Coax Cable
Model	PV100
Function	Durable Hand Compressor for Standard 21.0mm Connectors
Model	VT200
Function	Professional Compression tool: can be used with series 59, 6, 7 and 11 coaxial cable as well as 320QR mini hard line cable



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/14/01/perfectvision

Read TELE-audiovision Test Report



PERFECT VISION

Manufacturer	WORK Microwave
Website	www.work-microwave.de
Model	RF Signal Generator
Function	Test Signal Generator
Frequency range	50 MHz to 180 MHz and 950 MHz to 2150 MHz
Frequency resolution	0.5 MHz
Output level	-45 dBm to -5 dBm
Output level resolution	0.5 dB
Output impedance	50 Ohm
Output mute	< -60 dBc
Reference Output	10 MHz, -10 dBm to +10 dBm, 0.5 dB steps

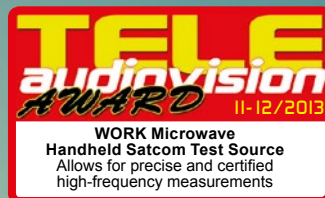


TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/11/work-microwave

Read TELE-audiovision Test Report



WORK MICROWAVE



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/03/antiference
Read TELE-audiovision Test Report

Manufacturer	Antiference
Website	www.antiference.co.uk
Model	KLA-110 Launch Amplifier & KCC-110 Channel Converter/Processor
Function	Filtering, amplifying and converting DTT channels to new frequencies
Input / Output frequency range	44 – 862 MHz / 44 – 862 MHz
Input level range	65 – 95 dBμV
Output level adjustment (KCC-110)	60 – 80 dBμV
Gain adjustment (KLA-110)	14 – 45 dB



KINGRAY

Manufacturer	Dexin Digital Technology
Website	www.dsdtv.com/english
Model	NDS3975 DVB-S2 HD IRD
Function	Professional Integrated Receiver Decoder
Tuner Input	QPSK, QPSK DVB-S2 (DVB-T/DVB-C/SD/HD optional)
ASI Input	Maximum transmitting rate 90Mbps
ASI Input	Maximum transmitting rate 90Mbps
DVB-S2/LAN	• / •
SDI/YPbPr/CVBS/HDMI	• / • / • / •
Scart/Digital Audio	— / •



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/13/01/dexin
Read TELE-audiovision Test Report





TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/11/dektec
Read TELE-audiovision Test Report

Manufacturer	DekTec
Website	www.dektec.com
Model	DTE-3137
Function	Networked DVB-S/DVB-S2 Receiver
Frequency range	950 - 2150 MHz)
Transmission Standards	DVB, DVB-RSC, ATSC
Modulations	QPSK, 8-PSK, 16-APSK and 32-APSK
DVB-S2/LAN	• / •



DekTec DTE-3137
Perfectly equipped professional satellite receiver for use in networks and for processing in cable networks.

DEKTEC



SPAUN VAM 420 NG PAL
Easy way to create
analogue tv channels



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/09/spaun-vam
Read TELE-audiovision Test Report

Manufacturer	Spaun
Website	www.spaun.com
Model	VAM 420 NG PAL
Function	VSB Twin Modulator
Frequency range	110 ... 862 MHz
TV standard	B/G/D/K/I/L
Output level max	90 dBµV
Output level adjustment	0...-10 dB
Spurious level	<-60 dB
C/N ratio	≥ 50 dB
Input level	1 ± 0.1 V p-p

SPAUN

Manufacturer	Global Invacom
Website	www.gloablinvacom.com
Model	FibreRS DTT Processor
Function	Filtering and amplifying DVB-T signal
Frequency range	470-862 MHz
Number of channels	6 (expandable to 9)
Broadcast standard	DVB-T 8 MHz
Gain	20 dB
Channel flatness	< 2.5 dB
DAB Frequency range	217-230 MHz
Insertion loss	< 2 dB



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/07/globalinvacom
Read TELE-audiovision Test Report



GLOBAL INVACOM



TELE-audiovision
International
Magazine

Expert Opinion

www.TELE-audiovision.com/12/07/spaun
Read TELE-audiovision Test Report



Manufacturer	Spaun
Website	www.spaun.com
Model	BluBox 16
Function	DVB-S2/DVB-S2 to DVB-C Head End
DVB-S2/LAN	• / •
Number of inputs	4 (cascadable)
Input frequency range	950 ... 2150 MHz
Allowable input signal power	64 ... 94 dBμV
Number of outputs	2 (cascadable)
Output frequency range	47 ... 862 MHz
QAM standard	DVB-C / ITU-T J.83 Annex A (fixed)

SPAUN

Take Advantage

A young woman with long, wavy red hair and blue eyes is smiling at the camera. She is wearing a red, short-sleeved top with ruffled shoulders. She is holding a black tablet computer with both hands. The tablet screen displays a white rectangular box containing text.

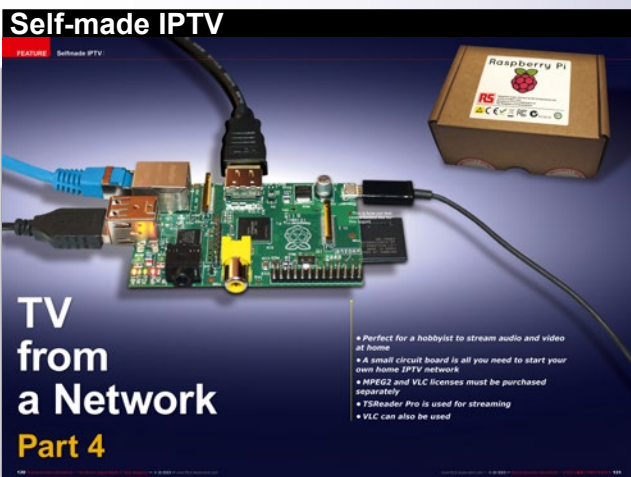
**Read TELE-audiovision's Technical
Feature Stories to Know All About
the Digital Developments and New
Technical Breakthroughs**

**Enjoy Reading TELE-audiovision
FREE on Your
Tablet Computer**

www.TELE-audiovision.com

Self-made IPTV

FEATURE Self-made IPTV



TV from a Network Part 4

- Perfect for a hobbyist to stream audio and video at home
- A small circuit board is all you need to start your own home IPTV network
- MPEG2 and VLC licenses must be purchased separately
- TSReader Pro is used for streaming
- VLC can also be used

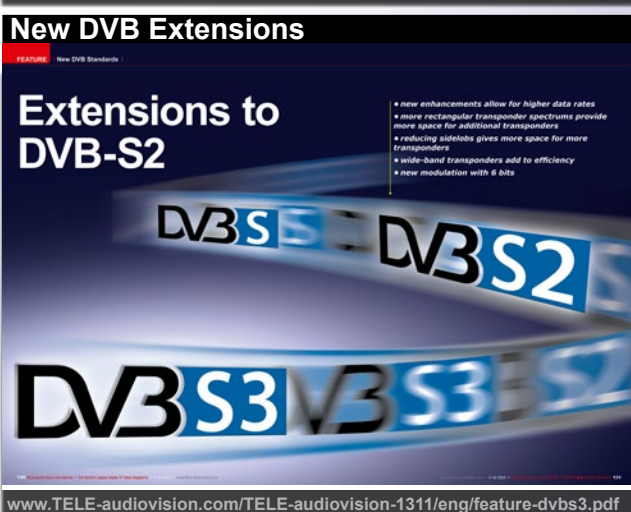
www.TELE-audiovision.com/TELE-audiovision-1311/eng/feature-satip4.pdf

New DVB Extensions

FEATURE New DVB Standards

Extensions to DVB-S2

- new enhancements allow for higher data rates
- more rectangular transponder spectrums provide more space for additional transponders
- reducing sidelobe gives more space for more transponders
- wide-band transponders add to efficiency
- new modulation with 6 bits



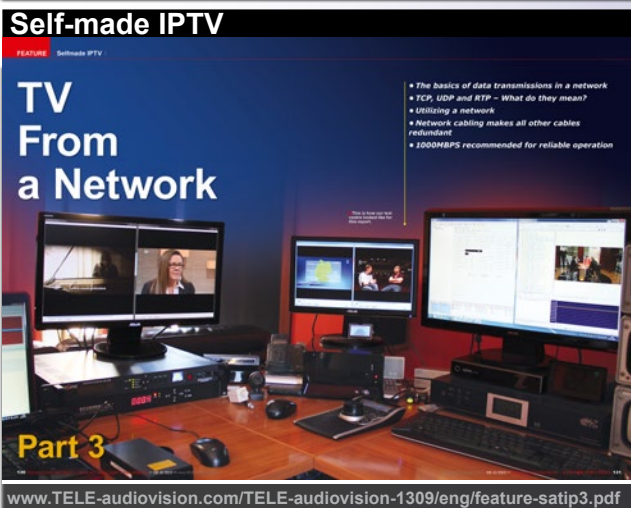
www.TELE-audiovision.com/TELE-audiovision-1311/eng/feature-dvbs3.pdf

Self-made IPTV

FEATURE Self-made IPTV

TV From a Network Part 3

- The basics of data transmissions in a network
- TCP, UDP and RTP – What do they mean?
- Utilizing a network
- Network cabling makes all other cables redundant
- 1000Mbps recommended for reliable operation



www.TELE-audiovision.com/TELE-audiovision-1309/eng/feature-satip3.pdf

Ultra High Definition TV

FEATURE Ultra High Definition Television

- can better display colors, mainly red and green shades
- suitable for 3D due to its higher frame rate
- requires an enormous bandwidth
- users will need brandnew equipment as UHDTV is not backward compatible



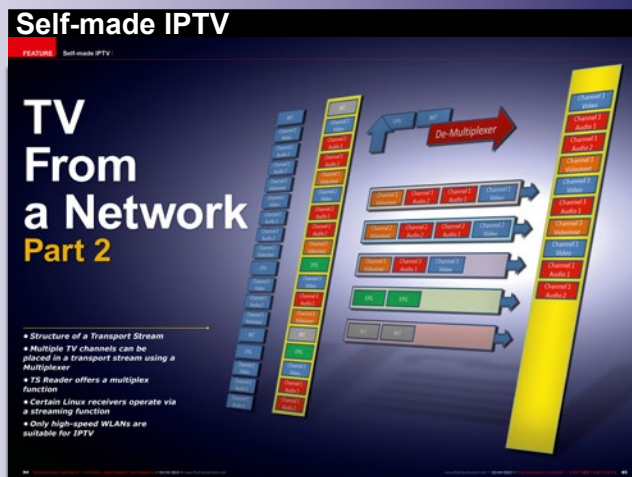
www.TELE-audiovision.com/TELE-audiovision-1309/eng/feature-uhdtv.pdf

Self-made IPTV

FEATURE Self-made IPTV

TV From a Network Part 2

- Structure of a Transport Stream
- Multiple TV channels can be placed in a transport stream using a Multiplexer
- TSReader offers a multiplex function
- Certain Linux receivers operate via a streaming function
- Only high-speed WLANs are suitable for IPTV



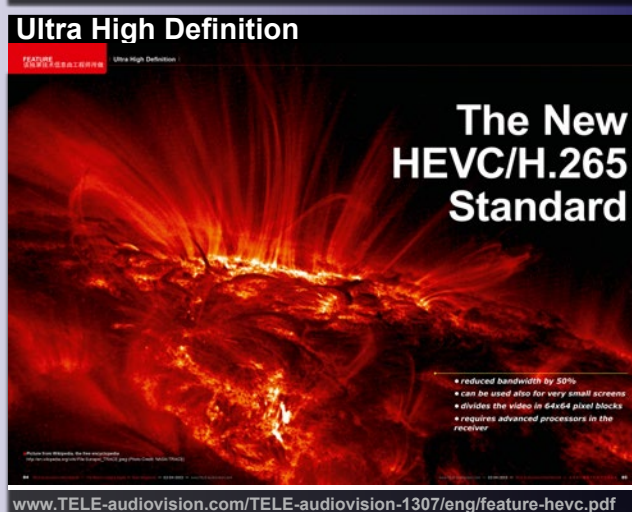
www.TELE-audiovision.com/TELE-audiovision-1307/eng/feature-satip2.pdf

Ultra High Definition

FEATURE Ultra High Definition

The New HEVC/H.265 Standard

- reduced bandwidth by 50%
- can be used also for very small screens
- divides the video in 64x64 pixel blocks
- requires advanced processors in the receiver



www.TELE-audiovision.com/TELE-audiovision-1307/eng/feature-hevc.pdf

Self-made IPTV

FEATURE Self-made IPTV

TV from a Network Part 1

- Digital TV distribution via your own Internet network
- No cables needed if used with WLAN
- Laptops, Smartphones, Tablets can be used as TVs
- Very high data flow with HDTV



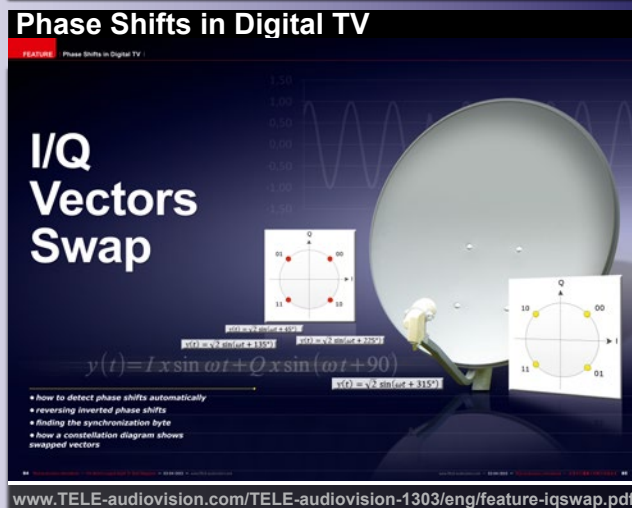
www.TELE-audiovision.com/TELE-audiovision-1305/eng/feature-satip1.pdf

Phase Shifts in Digital TV

FEATURE Phase Shifts in Digital TV

I/Q Vectors Swap

- how to detect phase shifts automatically
- reversing inverted phase shifts
- finding the synchronization byte
- how a constellation diagram shows swapped vectors



www.TELE-audiovision.com/TELE-audiovision-1303/eng/feature-iqswap.pdf

Digital Terrestrial TV - 2nd Level

[illegible]

www.TELE-audiovision.com/TELE-audiovision-1301/eng/feature-atsc2.pdf

The Secret Special Transmission Modes

www.TELE-audiovision.com/TELE-satellite-1209/eng/feature-transmission.pdf

All About Fiber Optic Connectors

Optical Fibers

Wavelengths & Connector Types

- 6 different wavelength bands
- what dispersion is doing to a signal
- the advantages of Laser diodes
- finding the lowest attenuation

www.TELE-audiovision.com/TELE-satellite-1209/eng/feature-optical.pdf

Basic Knowledge: Polar Mount Antennas

[illegible]

www.TELE-audiovision.com/TELE-satellite-1207/eng/polarmount.pdf

DVB-S2: Hide the SD inside the HD

FEATURE Satellite Transmission Technology

H-8PSK Hierarchical Modulation

- backwards compatible to regular DVB-S2
- useful to pack SD and HD version of a tv program into one transponder
- very sensitive to misalignment
- may remain a niche technology

www.TELE-audiovision.com/TELE-satellite-1207/eng/feature-h8psk.pdf

How a tuner for VCM operates

FEATURE: VCM Tuner





VCM Signal Reception

- allows more than one stream for each transponder
- dynamic change of FEC coding rates
- different content can be assigned to different transmission modes
- compatible tuner needs function to determine coding rates
- VCM signals only receivable with compatible tuners

www.TELE-audiovision.com/TELE-satellite-1205/eng/dvb-S2-vcn.pdf

DVB-S2 MIS Reception with VCM/ACM

The New Flexible MIS Transmission Technology

- The receiver chooses the optimal reception mode
- Programming providers can optimize transmission costs
- Picture quality based on usable signal
- From "Broad"-Cast it becomes "Individual"-Cast

The image is a composite. On the left, a satellite dish is shown against a dark background. In the center, a computer monitor displays a software interface with various icons and text. On the right, a circuit board is shown with a satellite receiver module installed. The module has a label that reads '25-100'.

www.TELE-audiovision.com/TELE-satellite-1201/eng/tenow-TBS6925.pdf

Automatic Creation of 3D

FEATURE 3 Dimensional Television

FEATURE 3 Dimensional Television

» the tricks used to create a third dimension
 » it's more easy than you think
 » it won't be perfect, but adds a lot more fun
 » only possible with digital tv

Automatic 2D-to-3D Conversion

Software automatically creates the third dimension (depth)

Jack Peacock

The majority of all television programmes created in two dimensions (depth) is in fact seen with our single eye. However, once a 3D image is created, it can be seen with both eyes if it is shown in a 3D format. This is the depth, which is the third dimension. But there is a lot more to 3D programming, including, at the end of the day, when the all public is made with both eyes and therefore must believe the third dimension is not an illusion, correct?

Has used for the general 3D content to be produced and not used to create 3D images, which is the third dimension of the image, which is the third dimension. So, the use of the 3D is the key to the 3D image and therefore must believe the third dimension is not an illusion, correct?

Generally, to convert 2D images to 3D, we need to make two steps. Step 1 is to create a 3D image, which is the third dimension of the image, which is the third dimension. Step 2 is to create a 3D image, which is the third dimension of the image, which is the third dimension. Step 3 is to create a 3D image, which is the third dimension of the image, which is the third dimension.

Let's take the example of a television. There are various ways to create 3D images. One way is to use a 3D camera, which is the third dimension of the image, which is the third dimension. Another way is to use a 3D scanner, which is the third dimension of the image, which is the third dimension.

1. depth from left
 2. matching point based extraction
 3. depth from right

"Depth from left" means that about the left eye of the camera, the image is taken. The image is then taken from the right eye of the camera, which is the third dimension of the image, which is the third dimension.

Fig 1 Depth from left and right eye of the camera

Fig 2 A 3D image, which is the third dimension of the image, which is the third dimension. The image is then taken from the right eye of the camera, which is the third dimension of the image, which is the third dimension.

14

www.bbc.co.uk/3/television/2010/03/100314_3d_tv

© 2010 BBC. All rights reserved. Reproduction in whole or in part is prohibited.

14

www.TELE-audiovision.com/TELE-satellite-1109/eng/2d3dconversion.pdf

How a Silicon Tuner Works

FEATURE **TELEVISION** Tuner

What's inside a silicon tuner?

Jack Pawlowski

• A silicon tuner is a significant technological improvement that finds its way into nearly every new product in digital TV equipment

It's a common misconception that silicon tuners are just a fancy name for a tuner. In reality, a silicon tuner is a complex integrated circuit (IC) that contains all the functions of a traditional tuner, including frequency conversion, demodulation, and baseband processing. The silicon tuner is a single chip that integrates all the functions of a traditional tuner, including frequency conversion, demodulation, and baseband processing. The silicon tuner is a single chip that integrates all the functions of a traditional tuner, including frequency conversion, demodulation, and baseband processing.

The silicon tuner is a single chip that integrates all the functions of a traditional tuner, including frequency conversion, demodulation, and baseband processing. The silicon tuner is a single chip that integrates all the functions of a traditional tuner, including frequency conversion, demodulation, and baseband processing. The silicon tuner is a single chip that integrates all the functions of a traditional tuner, including frequency conversion, demodulation, and baseband processing.



© 2011 www.Tele-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-1107/eng/silicontuner.pdf

Channel Capacity of a Transponder

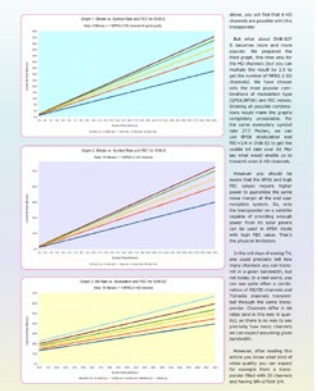
FEATURE **TELEVISION** Satellite Technology

How many SD/HD channels can we get from one transponder?

Jack Pawlowski

Everybody who ever studied satellite charts with transponder data knows that the spectral ratio of a transponder is one of its most important parameters. And that's not only because you need to know it to get the data in manual channel search.

The spectral ratio of a transponder is one of its most important parameters. And that's not only because you need to know it to get the data in manual channel search. The spectral ratio of a transponder is one of its most important parameters. And that's not only because you need to know it to get the data in manual channel search.



www.TELE-audiovision.com/TELE-satellite-1107/eng/sdinhd.pdf

CI+ and HD+Encryption

FEATURE **TELEVISION** HDTV Copyright Management



CI+ and HD+Encryption
by ASTRA

www.TELE-audiovision.com/TELE-satellite-1107/eng/CI+HD+.pdf

How MPEG Surround Works

FEATURE **TELEVISION** Audio Transmission

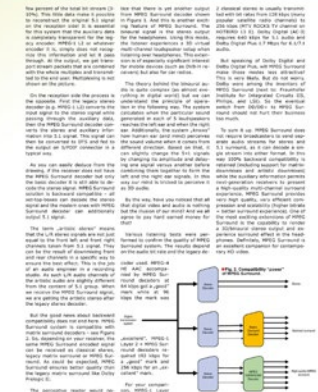
The New Audio: MPEG Surround

Are we to forget the old good audio codecs? Not exactly!

Jack Pawlowski

• When we think about digital TV we usually focus on the video performance. The terms SDTV and HDTV refer to video resolution. To save bandwidth, the original video data stream has to be compressed. Most of our TELE-satellite readers are very familiar with the two most popular video compression standards: MPEG-2 and H.264 (also known as MPEG-4 Part 10).

The MPEG Surround standard is a new audio codec that is designed to provide high-quality audio transmission over a limited bandwidth. It is based on the MPEG-2 audio standard and is designed to provide high-quality audio transmission over a limited bandwidth.



www.TELE-audiovision.com/TELE-satellite-1105/eng/mpeg-surround.pdf

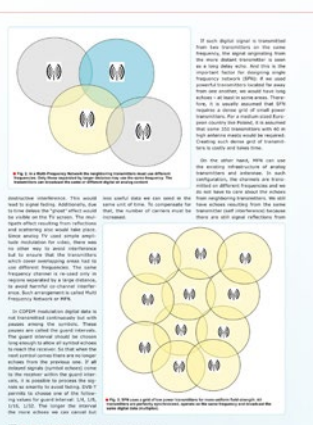
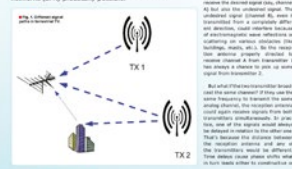
How the SFN Modulation Works

FEATURE **TELEVISION** Transmission Technology

Single- and Multi-Frequency Networks in Digital Terrestrial Television

Jack Pawlowski

DVB-T2 and DVB-H standards for digital terrestrial TV use COFDM modulation. COFDM stands for Coded Orthogonal Frequency Division Multiplexing and is a quite complex set of digital modulation developed to ensure high bit capacity along with interference immunity. The latter feature is what makes single frequency networks (SFN) practically possible.



www.TELE-audiovision.com/TELE-satellite-1103/eng/sfn.pdf

How HbbTV Works

FEATURE **TELEVISION** TV Transmission Standard

HbbTV Hybrid broadcast broadband TV Get organized for the inevitable

This will not be a surprise for TELE-satellite readers. A new standardization initiative has been started to integrate the digital TV world with the Internet. The basic idea is quite clear: make it as seamless as possible for the end user. TELE-satellite readers often mentioned the advantages of the Internet. The basic idea is quite clear: make it as seamless as possible for the end user.

The basic idea is quite clear: make it as seamless as possible for the end user. The basic idea is quite clear: make it as seamless as possible for the end user. The basic idea is quite clear: make it as seamless as possible for the end user.



www.TELE-audiovision.com/TELE-satellite-1101/eng/hbbtv.pdf

How DVB-C2 Works

FEATURE **TELEVISION** DVB in the field

Ultimate Spectral Efficiency DVB-C2 is around the corner

Jack Pawlowski

The new DVB-C2 standard has been in use since 1994. The time for a second generation standard came in 2005 when European cable operators expressed their big concerns about the limited bandwidth they have for the distribution of their services. The major goal was the more efficient use of the available bandwidth in cable networks.

Parameter	DVB-C2	DVB-C
Modulation	QAM-64	QAM-64
Bandwidth	7 MHz	7 MHz
Power	100 W	100 W



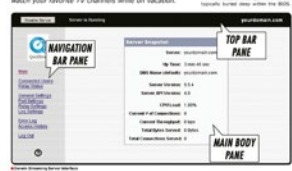
www.TELE-audiovision.com/TELE-satellite-1009/eng/dvb-c2.pdf

Streaming TV via the Internet

FEATURE **TELEVISION** TV via Internet

Streaming TV via the Internet - Quick Setup and Free!

This wouldn't be the first time that we reported in TELE-satellite about an innovation that would let you receive TV and radio content via the Internet. In this way you could be on vacation in your hotel on the other side of the world and playback your favorite programs from your living room via an Internet stream or simply watch your favorite TV channels while on vacation.



www.TELE-audiovision.com/TELE-satellite-1007/eng/streaming.pdf

Testing Horizon to Horizon Actuator

FEATURE | Horizon-to-Horizon Antenna Actuators

How Can You Test H-H Antenna Actuators?

Heinz Koppitz



H-H antenna actuators are sophisticated components that can turn any mono-feed antenna into a reception system for all locally available satellites. All H-H antenna actuators are DiSEqC 1.2 compatible and accept USALS (DiSEqC 1.3) commands generated by satellite receivers. The heart of any antenna actuator is a so-called support motor with very high positioning accuracy. Nevertheless, the occasional rather simple may get you out of sorts of trouble. We'll show you how to put the test system.

The most sign of antenna actuators is the support motor. The support motor is the heart of the antenna actuator. It is a synchronous motor with a very high positioning accuracy. The support motor is connected to the antenna actuator via a gear train. The gear train is made of several gears of different sizes. The gear train is designed to provide a high torque output. The support motor is connected to the antenna actuator via a gear train. The gear train is made of several gears of different sizes. The gear train is designed to provide a high torque output.



www.TELE-audiovision.com/TELE-satellite-1005/eng/h-h-actuator.pdf

How SCR Works

FEATURE | SCR LNB

Thanks to SCR: One single cable for up to eight receivers

Thomas Haring



SCR is short for Satellite Channel Router and is a specification defined in the EN 50494 standard, which applies worldwide and which is the result of joint forces between several companies under the guidance of SES-Airbus. So what's in it for you?

The SCR is a standard in all satellite receivers. It is a standard that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers. The SCR is a standard that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers.

www.TELE-audiovision.com/TELE-satellite-0911/eng/scr.pdf

How Decoding Works

FEATURE | Pay TV

Decoding of Encrypted Content

Thomas Haring



The CI+ standard can be decoded after the decryption process. The decryption process is done by the receiver. The receiver is connected to the satellite dish via a cable. The receiver is connected to the satellite dish via a cable. The receiver is connected to the satellite dish via a cable.

www.TELE-audiovision.com/TELE-satellite-0909/eng/decoding.pdf

How ABS-S Works

FEATURE | New Digital Standard

ABS-S: a competition for DVB-S/S2?

Jack Pawlowski



ABS-S is a new digital standard. It is a standard that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers. The ABS-S is a standard that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers.

www.TELE-audiovision.com/TELE-satellite-0903/eng/abs-s.pdf

Matching LNB with Dish

FEATURE | LNB Types

Matching LNB and Dish Type

Jack Pawlowski

When you buy a new LNB, you must match it with the dish you have. The dish must be of the right size and shape. The LNB must be of the right type. The LNB must be of the right type. The LNB must be of the right type.

Fig. 1. Matching LNB and Dish Type

www.TELE-audiovision.com/TELE-satellite-0811/eng/lbn+dish.pdf

How to Calculate the Power Factor

FEATURE | Energy Saving

Power Factor

Jack Pawlowski

All our satellite receivers need electrical energy to operate. Electricity, of course, is a form of energy. It is a form of energy that can be converted into other forms of energy. It is a form of energy that can be converted into other forms of energy. It is a form of energy that can be converted into other forms of energy.

Fig. 1. Power Factor

www.TELE-audiovision.com/TELE-satellite-0809/eng/powerfactor.pdf

How to Solve Problems with DiSEqC

FEATURE | DiSEqC

Why DiSEqC Isn't Always Reliable

Heinz Koppitz

The DiSEqC control system, introduced by the DiSEqC standard, is a standard that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers. The DiSEqC is a standard that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers.

www.TELE-audiovision.com/TELE-satellite-0807/eng/diseqc.pdf

How the 3D Diffractive Antenna Works

FEATURE | Antenna Design

Development and Application of 3D Diffractive Antennas

I.V. Minin, O.V. Minin

3D diffractive antennas are a new type of antenna. They are a type of antenna that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers. The 3D diffractive antenna is a type of antenna that allows you to connect up to eight receivers to a single LNB. This is done by using a single cable for all receivers.

www.TELE-audiovision.com/TELE-satellite-0805/eng/3ddiffractive.pdf

Relation between Dish Size and EIRP

FEATURE Dish Sizes

Dish Size versus EIRP

Jack Pawlowski

How do you know if you have a good satellite dish? It's not the size of the dish, but the quality of the signal it receives. The signal quality is determined by the EIRP (Effective Isotropic Radiated Power) of the satellite. The EIRP is a measure of the power that the satellite radiates in a given direction. It is the product of the power that the satellite transmits and the gain of the antenna in that direction. The EIRP is a key factor in determining the quality of the signal that you receive. A higher EIRP means a stronger signal, which translates to better reception and less noise. So, when you're looking at satellite dishes, don't just look at the size. Look at the EIRP. That's the real measure of a dish's quality.



Figure 1: Dish size vs EIRP for 12 dB



Figure 2: Dish size vs EIRP for 14 dB

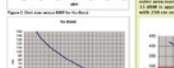


Figure 3: Dish size vs EIRP for 16 dB

How to read SatcoDX Coverage Images

Jack Pawlowski

When you look at a SatcoDX coverage image, you're seeing a map of the satellite's coverage area. The map is color-coded to show the strength of the signal. Red indicates the strongest signal, while blue indicates the weakest. The map also shows the location of the satellite and the ground station. This information is useful for determining the quality of the signal that you're receiving. If you're having trouble with your satellite dish, a coverage image can help you identify the problem. For example, if the signal is weak in your area, you might need a larger dish or a different antenna. So, when you're troubleshooting a satellite dish problem, don't forget to check the coverage image. It might just be the key to solving your problem.



Figure 4: SatcoDX Coverage Image



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0803/eng/dishsize.pdf

Secrets of the Aspect Ratio

FEATURE Aspect Ratio

Aspect Ratio – Isn't This Simple?

Jack Pawlowski

Aspect ratio is the ratio of image width to image height. It's a simple concept, but it's often misunderstood. The most common aspect ratio is 4:3, which is used for standard definition television. However, there are other aspect ratios, such as 16:9, which is used for high definition television. The aspect ratio affects the way that the image is displayed on the screen. A 4:3 image will look stretched if it's displayed on a 16:9 screen, while a 16:9 image will look squashed if it's displayed on a 4:3 screen. So, when you're watching a video, it's important to know the aspect ratio. That way, you can make sure that the image is displayed correctly. If you're having trouble with your aspect ratio, don't worry. It's a simple problem to solve. Just make sure that you're using the correct aspect ratio for your screen. That's all it takes.



Figure 1: 4:3 Aspect Ratio



Figure 2: 16:9 Aspect Ratio

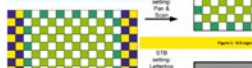


Figure 3: 16:9 Aspect Ratio



Figure 4: 16:9 Aspect Ratio



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0801/eng/aspectratio.pdf

How the Network Connection Works

FEATURE Receiver + Network

The Network Connection – a jack with multiple uses

Thomas Hering

More and more manufacturers are offering network connections for their satellite receivers. This is a great feature, as it allows you to connect your receiver to your home network. This way, you can watch your favorite satellite channels on your computer or other networked devices. It's a convenient way to enjoy your satellite service. However, there are some things you need to know about network connections. First, you need to make sure that your receiver is compatible with your network. Second, you need to make sure that your network is properly configured. If you're having trouble with your network connection, don't worry. It's a simple problem to solve. Just make sure that you're following the correct steps. That's all it takes.



Figure 1: Network Connection



Figure 2: Network Connection



Figure 3: Network Connection



Figure 4: Network Connection



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0711/eng/networkconnections.pdf

How the Ka Band Works

FEATURE Technology Background Ka Band

Ka-Band – the future of satellite communication?

Peter Miller

We are entering a new era of satellite communication. The Ka band is the key to this new era. It offers a much higher frequency than the traditional Ku and C bands. This means that it can carry more data, which translates to faster speeds and higher capacity. The Ka band is also more resistant to interference, which makes it a more reliable option. So, when you're looking at satellite communication options, don't forget about the Ka band. It might just be the future of satellite communication.



Figure 1: Frequency spectrum

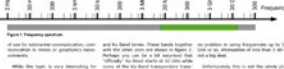


Figure 2: Frequency spectrum



Figure 3: Frequency spectrum



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0709/eng/kaband.pdf

How MPEG Works

FEATURE Data Reduction in MPEG

How MPEG really works

An expert view on the deeper secrets of digital compression

Steve J. Green

MPEG is a set of standards for digital video compression. It's a complex system, but it's also a very effective one. The MPEG standards allow for a significant reduction in the amount of data that is needed to represent a video. This makes it possible to store and transmit video more efficiently. So, when you're watching a video, you're actually seeing a compressed version of the original. This is what makes it possible to watch videos on the internet or on a small screen. Without compression, videos would be too large to handle. So, the next time you watch a video, remember that it's all thanks to MPEG. It's the magic behind the scenes.



Figure 1: MPEG Compression



Figure 2: MPEG Compression



Figure 3: MPEG Compression



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0707/eng/mpeg.pdf

Secrets of Antenna Alignment

FEATURE Dish Alignment

Antenna Underperformance Due to Misalignment

Peter Miller

Antenna alignment is a critical factor in determining the performance of a satellite dish. If the dish is not properly aligned, it will not receive the signal correctly. This can result in poor reception and a lot of frustration. So, when you're setting up your satellite dish, make sure that you're aligning it correctly. There are a few things you need to know about antenna alignment. First, you need to know the location of the satellite. Second, you need to know the azimuth and elevation angles. If you're having trouble with your antenna alignment, don't worry. It's a simple problem to solve. Just make sure that you're following the correct steps. That's all it takes.



Figure 1: Antenna Alignment



Figure 2: Antenna Alignment

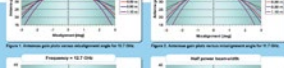


Figure 3: Antenna Alignment

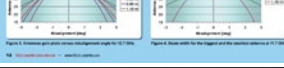
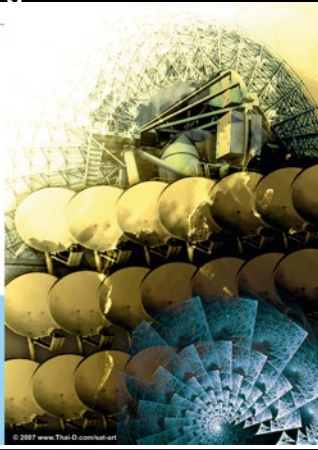


Figure 4: Antenna Alignment



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0705/eng/performance.pdf

The Secrets of HDMI

FEATURE HDMI

HDMI – the interface not only for HDTV

Peter Miller

HDMI is a digital interface that allows you to connect your HDTV to other devices. It's a simple and convenient way to enjoy your HDTV. However, there are some things you need to know about HDMI. First, you need to make sure that your HDTV is compatible with HDMI. Second, you need to make sure that you're using the correct HDMI cable. If you're having trouble with your HDMI connection, don't worry. It's a simple problem to solve. Just make sure that you're following the correct steps. That's all it takes.



Figure 1: HDMI Connection



Figure 2: HDMI Connection



Figure 3: HDMI Connection



Figure 4: HDMI Connection



© 2007 www.Thai-D.com/sat-art

www.TELE-audiovision.com/TELE-satellite-0703/eng/hdmi.pdf

The Relation of Dish Size and EIRP

FEATURE The ERP Secret

Dish Size versus EIRP

Peter Miller

The relation between dish size and EIRP is a key factor in determining the quality of a satellite dish. A larger dish can receive a stronger signal, which translates to better reception. So, when you're looking at satellite dishes, don't just look at the size. Look at the EIRP. That's the real measure of a dish's quality. A higher EIRP means a stronger signal, which translates to better reception and less noise. So, when you're looking at satellite dishes, don't just look at the size. Look at the EIRP. That's the real measure of a dish's quality.



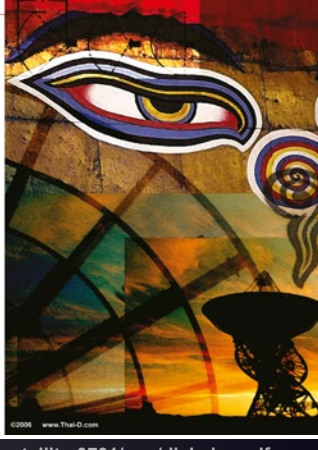
Figure 1: Dish size vs EIRP for 12 dB



Figure 2: Dish size vs EIRP for 14 dB



Figure 3: Dish size vs EIRP for 16 dB



© 2007 www.Thai-D.com

www.TELE-audiovision.com/TELE-satellite-0701/eng/dishsize.pdf

4 Antennas – Perfectly Hidden



- *no permanent installation required*
- *not visible from the street since the system is lower than a balcony wall*
- *better reception than with a single multi-feed antenna*
- *easy set-up since only one antenna needs to be aligned*
- *low-cost thanks to standard components*



Antenna array on the balcony – without your neighbour or landlord having a clue

Vitor Martins Augusto

If you live in a rented apartment or in a condo the following might ring bell: You prefer the endless possibilities of satellite reception over cable or terrestrial channels, but you're not allowed to install a satellite antenna on your balcony, let alone on the building's facade. If you believe you'll be stuck with that situation forever, we have news for you. We've come up with a real treat that should even impress the odd satellite DXer. But let's not get over-excited and rather start right from the beginning.

When I strolled through my local DIY centre recently I also walked through the satellite section, as I always do, only to find out that stand-alone antenna poles are way too expensive. 49 euros for a small piece of galvanized steel? Come on!

Actually, I have one of those at home already, and it does a brilliant job for use on a balcony without having to drill a whole into the existing

building structure. But let's be honest, multi-feed reception with a 60cm off-set antenna is not exactly the perfect solution and – come to think of it – I originally wanted to receive a total of

four positions anyway: 28.2E, 19.2E, 13.0E and 30.0W. This requires at least two antennas, and this was also why I was on the lookout for a second pole in the first place. One that I could use



without permanent installation. Because my landlord would never allow that. Period.

Disappointedly, I trotted away, passing a display of workbenches along my way when all of a sudden my eyes wandered towards this foldable base which was meant to support a height-adjustable table. This would do nicely for hanging wallpaper, but in actual fact my thoughts had long gone from home improvement to something entirely different: What if I turned that foldable base by 90 degrees and used it as perfectly suitable antenna poles for four individual antennas? A quick look at the attached price tag meant that it could be mine for 23 euros, and so a decision was taken on the spot. Minutes later, I carried home an inconspicuous foldable base that would be turned into excellent stand-alone antenna poles.

The base looked a bit low, though, and frankly I had some doubts as to whether 60cm antennas could be mounted on them at all. And whether those antennas would actually allow decent reception in the end.

As it turned out, it was a very tight job with only a couple of centimetres clearance between antenna and balcony floor. Nonetheless, I had a signal coming in, which proved that recep-



4



1. Existing stand-alone antenna pole. Cost: around 40 to 50 euros.
2. Foldable base for DIY table. Cost in the DIY centre: around 25 euros.
3. Create an improvised antenna pole by turning the foldable base by 90 degrees.
4. Comparison of height and space requirements of both solutions.
5. 60cm offset antenna: Barely fits into available space.

5



6



6. Inside the flat antenna: It's more like a prime focus antenna with reflector. The LNB is mounted behind.

7. Size comparison between a 60cm offset antenna and a 60cm prime focus flat antenna.

tion was possible. On the down side, I found that a maximum of three offset antennas could be mounted, since the space required by the feed arms and the LNBs did not allow for a fourth antenna. Still, at this point I simply refused to give up and thought long and hard about how I could accomplish a small and – almost – invisible antenna farm on my balcony after all.

I decided to get four flat antennas. The models I chose were not flat antennas in the true sense of the word, but rather prime focus antennas that feature a metal dish behind the plastic covering on the front, which means that the LNB is actually positioned behind the antenna. This a very smart design that allows for virtually flat antennas which still achieve a good signal gain that is in line with most conventional 60cm antennas.

Genuine flat antennas, on the other hand, use a multitude of small patches that are connected to each other. Signal gain with such a construction can only grow logarithmically with regard to the number of patches that are used, which means that those antennas are usually only available in small sizes (comparable to 60cm antennas) and are more expensive – one of the reasons why I did not opt for genuine flat antennas.

When I tested only one antenna for the first time the results I obtained were truly promising. I was able to receive a perfect signal right on my balcony, behind the balcony wall.

Next, I had to mount the remaining



7

NEW from **COSMOSAT-DIGITAL** Argentina/South America



**MADE IN
ARGENTINA**

High Quality C-Band Dishes

COSMOSAT, Nicasio Oroño 2106 5°B, C1416BZV Buenos Aires, Argentina, South America
Email: cosmosat@cosmosat-digital.com.ar ■ Tel +55-11-5365-4822
<http://www.cosmosat-digital.com.ar>



three antennas. Taking into account the extremely low clearance between the individual antennas I had to figure out the best possible arrangement. For position 1 I chose ASTRA2 (28.2E), followed by ASTRA1 (19.2E) for position 2, HOTBIRD (13.0E) for position 3 and finally HISPASAT (30.0W) for position 4. This way no single antenna was blocked by another one and – equally important – antennas in the front were not in the way of the two antennas behind. What's more, this set-up seemed to be a logical choice to begin with.

With the help of professional signal meter SPAUN SPAROS 609 precise alignment turned out to be child's play and did not take more than 15 minutes for all four satellites. Once I had completed that job I went about laying out and tailoring the required coax cables.

The four cables from the antennas



8. Antenna pole base with a single prime focus flat antenna: Due to uneven weight distribution the set-up is still slightly shaky.

9. Adding the second antenna: To make sure the pole base does not tip over I continued with position 3 rather than position 2.

10. Once the second antenna was installed the base has become sure-footed and could not fall over any longer. At this stage it did not make much of a difference whether antenna 2 or 4 would be next.

11. Finished. With each of the four antennas taking its space the overall situation is quite tight, but each antenna has an unobstructed line of sight.

were first fed to a 4/1 DiSEqC switch and from there to our AZBox ME test receiver (see test report in TELE-satellite 02+03/2012). The moment of truth came when I initiated a channel search on all four positions, which yielded a total of 2230 TV channels and 442 radio stations. Unfortunately, the BBC transponder on ASTRA2 did not come in strong enough due to the small size of the prime focus flat antenna. While this did not come as a real surprise I should mention at this point that the position is very worthwhile nonetheless, with channels such as Channel4 HD, among others.

The entire set-up is lower than my balcony wall and the adjusted 4-pole base is extremely robust. When a major thunderstorm moved through the area the antennas did not even move a single millimetre.

12

12. The SPAUN SPAROS 609 signal meter was used to individually align each antenna. This job did not take longer than 15 minutes, since the first aligned antenna can be used as a point of reference for the additional antennas.





One of the huge benefits of the construction is that the antenna array is freely positioned on the floor without any screws or additional fixtures. A surface area of approximately 1.4 by 1.4 meters is occupied and total height does not exceed 80 centimetres. With a distance of 1.2 meters

from the balcony wall I was able to achieve perfect reception quality, provided the view towards south is unobstructed – but this is a general rule for all antenna installations in the northern hemisphere.

In order to fully check out the entire antenna array I also moved it to a

13. Fully cabled set-up: Doesn't take up much space and is lower than the balcony wall.

14. Shown for comparison: An offset antenna requires an extra 50 centimetres for its feed arm.

15. Antenna array on a small balcony: Even with restricted space available it was possible to receive signals from all four positions.





AUDOLICI

www.audolici.com

Masterpiece
without compromise



A1/25 **AUDOLICI** **Tube audio amplifier**

A perfect marriage between old and new

Advanced design based on 1970's vacuum tube technology

Takes an audio signal from a CD Player, Tape player, Tuner or Computer and reproduces it with amazing high quality and resolution

Reveals music dynamics and natural tone never before heard in any standard amplifier both at the instrument and vocal levels

Bias adjustment for each output section to customize the amplifier to your personal tastes

Each tube has been specially selected to provide the best possible sound experience

The result? Sound quality that will take your breath away!





much smaller second balcony. Thanks to its southern exposure, it was once again possible to catch signals with all four antennas. And what's more, since the height of the balcony wall is 30 centimetres higher than that of the antenna construction, the array is completely hidden from outside view.

There are other advantages as well: Two persons can easily carry the completed structure and if you turn it by 90 degrees it even fits through a standard balcony door. This means the antenna array can be stored away when not in use to free up balcony space.

Thanks to all four antennas being tightly attached to the base you can also just move the whole thing in any direction without having to worry that the four antennas might need re-alignment afterwards.

In actual fact, not even a signal meter will be required: Simply move the array until you have reception with one antenna. The remaining three antennas will then automatically be aligned as well, since their positions towards each other have not changed. I don't know about you, but to me that's really clever...

As you can gather, I am totally over the moon with this set-up. Obviously, you could also go for two 60cm multi-feed offset antennas (antenna 1: 28.2E, 19.2E and 13.0E; antenna 2: 30.0W), but due to the 'cross-eyed' LNBs which would have to be used the actual signal gain would be inferior to this array.



16. A bird's eye view reveals just how little space is required for the antenna array.

17. A total of five antennas are positioned on the small balcony – completely hidden behind the balcony wall, yet perfectly suited for state-of-the-art satellite reception and without causing hassles with neighbours or landlords.



A



THE GLOBAL STAGE FOR INNOVATION

PRODUCED BY  CEA®

JANUARY 6-9, 2015

2015 International CES® • Las Vegas, Nevada • CESweb.org

DATE

Save the date for the 2015 International CES®. Better yet, reserve your space now. With our all-new Tech East and Tech West venues, we promise a powerful attendee and exhibitor experience, including greater access to the companies, ideas and innovations shaping our industry.

WITH

POWER

How to get the most out of technology



Multi Satellite Reception

4 Antennas – Perfectly Hidden

- no permanent installation required
- not visible from the street since the system is lower than a balcony wall
- better reception than with a single multi-feed antenna
- easy set-up since only one antenna needs to be aligned
- low-cost thanks to standard components

www.TELE-audiovision.com/TELE-audiovision-1401/eng/vitorsworkshop.pdf

Satellite Reception in the Ka-Band

New in the Ka-Band

- How to receive the Ka-band in Europe
- Using the US American SL3 LNBs in Europe
- DISCQ commands to control the Downconverter
- This is not for your normal TV viewer

www.TELE-audiovision.com/TELE-audiovision-1305/eng/vitorsworkshop.pdf

AZBox Ultra HD Recovery

AZBox Ultra HD Resurrection

- Even "dead" receivers can be recovered
- There are often multiple ways to resurrect a receiver
- Courage and effort are worth it to update the software of an old receiver
- Yaman and JTAG are two essential ingredients for receiver revival

www.TELE-audiovision.com/TELE-audiovision-1307/eng/vitorsworkshop.pdf

Oscilloscope for Basic Use

Pocket Oscilloscope

- Provides a simple and easy way to check the basic functions of a satellite system
- Produces a 22kHz signal
- Can also be used to check the video and audio signal
- Especially capable of finding complex errors

DSO201

www.TELE-audiovision.com/TELE-audiovision-1303/eng/vitorsworkshop.pdf

Two-axis Motor Control

Wit's Workshop

Two Motors for Two Axes



- Independent control of azimuth and elevation
- Simplifies the installation of motorized systems
- Safe from accidental movement, for example, from a storm
- Makes possible the perfect reception of inclined satellites
- Very simple to make

www.TELE-audiovision.com/TELE-audiovision-1211/eng/vitorsworkshop.pdf

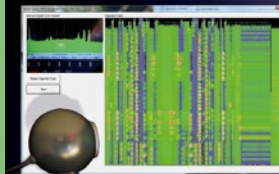
Add-On for SPAUN Signal Analyzers

Wit's Workshop

Add-On for SPAUN Signal Analyzers

SPAUN

Waterfall Diagram for the SPAROS 609 Satellite Signal Analyzer



- Permits the quick and easy alignment of motorized antennas
- SPAROS 609 Signal analyzer ideally suited due to its high resolution fast-response spectrum display
- Webcam allows use with other signal analyzer models
- Expands SPAROS 609 uses for the installer

www.TELE-audiovision.com/TELE-audiovision-1203/eng/vitorsworkshop.pdf

Selfmade Dish

Wit's Workshop

Selfmade Dish

Lego Antenna



- Even five-year-old kids can build a satellite system (if Dad helps)
- You can make your own parabolic dish out of aluminum foil
- Installation on a balcony is only good on those days when the wind is calm
- Lego Antenna lifespan? No more than an hour since by then your daughter will want to build something else with the Lego bricks
- An interesting way to spend the afternoon with your kids

www.TELE-audiovision.com/TELE-audiovision-1209/eng/vitorsworkshop.pdf

Upgrade for 8dtek Satellite Meters

FEATURE

Upgrade for 8dtek Satellite Meters

PiStar

Waterfall Diagrams for 8dtek Satellite Meters



- Detection of weak signals
- Identification of all active satellites
- Allows for highly precise antenna alignment
- Long-term measurements for reliable trend detection
- Ideal upgrade for 8dtek satellite meters

www.TELE-audiovision.com/TELE-audiovision-1201/eng/vitorsworkshop.pdf

Digital Picture Frame

Wit's Workshop

Digital Picture Frame

Digital Picture Frame for the AZBox ME



- Low-cost extension of the receiver display
- Channel logo and EPG data of the current channel can be displayed permanently
- Also available for weather forecasts with data from the Internet
- Some Linux experience recommended

www.TELE-audiovision.com/TELE-audiovision-1207/eng/vitorsworkshop.pdf

Receiver Firmware

FEATURE

Receiver Firmware

JTAG-Interface



- Reprogram a Defective Receiver
- All Necessary Information can be Found in the Internet
- Can Also be Used On Other Boxes With Flash Chips
- Allows for Better Understanding of Receiver Functions

www.TELE-audiovision.com/TELE-audiovision-1111/eng/vitorsworkshop.pdf

Chip Flashing

Wit's Workshop

Chip Flashing

Flash or no flash - Flashing the wrong firmware can cause trouble



- Vitor finds a way to bring a satellite meter back from the dead
- Be careful when installing a new software
- Simple device programmers are helpful
- A soldering iron is sufficient for connecting the wires
- Remember to make backups before starting any work



www.TELE-audiovision.com/TELE-audiovision-1205/eng/vitorsworkshop.pdf

Witor's Workshop

■ The DVbViewer Team:
Software programmer
Christian Hackbart
(left) and his father
Bernd Hackbart
(right), responsible
for administration and
marketing

DVBViewer



- **Light version available at no cost since 2002**
- **Regular software updates**
- **Can receive all digital TV standards**
- **Preconfigured for UHDTV**

■ The DVBViewer website: www.dvbviewer.com. Here you can download the free demo version and order the Pro version for 15 Euros



DVB VIEWER

NEWS FEATURES SCREENSHOTS ORDERING BOARD DOWNLOADS FAQ MANUAL

Can all do what you need.

Simple to use, thousand features

TV/Radio Recording | Home Theatre Solution | Simple to control

Members Section | lost & found | Wiki | Demo

english | deutsch

Welcome to DVBViewer Pro

DEMO AVAILABLE

What is it?
DVBViewer allows you to experience Digital TV on your PC. With a proper DVB card you can enter the world of digital entertainment and experience high quality, incredibly sharp TV pictures and near CD quality radio!

What features does DVBViewer provide?
It provides all basic functions you need to enjoy digital television and radio programs. In addition, DVBViewer offers you a wide range of advanced features such as Teletext, Electronic Programming Guide, Remote Control support and enhanced recording capabilities which enable you to record your favourite shows on hard-disc, edit them or share them with your friends.

Which features make it unique?
DVBViewer contains functions which are groundbreaking : It was the first program with a so called DesktopTV mode and in its category the only product which offers playback of any kind of media file (if the required codecs are installed) and Timeshifting features. It is even possible to handle more than one DVB device at the same time. Further on the multimedia skills of the DVBViewer do not need to hide behind other mediacenters. From playing multimedia contents up to receiving RSS newsfeeds, weather data, everything is possible.

What are the differences between the Technisat Edition and the proversion?
There are various features, which are only available in the proversion. A few examples, could be found [here](#).

Newsbar:

15.07.13 **DVBViewer 5.2.0**
We have released a brand new version of the DVBViewer and the world's first HbbTV Software for Windows systems. A... [\(mehr\)](#)

09.05.13 **DVBViewer 5.1.0 Demoversion**
We have updated the old demo version of the DVBViewer, to allow possible customers testing the application before buy... [\(mehr\)](#)

17.04.13 **DVBViewer 5.1.0**
We have released a brand new version of the DVBViewer. A complete list with all changes and innovations can be f... [\(mehr\)](#)

Tweets

DVBViewer @DVBViewer 14 Jun
Griga published TransEdit 4.0.2 Beta today - dvbviewer.tv/forum/topic/27... ... #DVBViewer #Transedit #SAT2IP Expand

DVBViewer @DVBViewer 9 May
We have uploaded the updated DVBViewer Pro 5.1 DEMO dvbviewer.com/en/index.php? #DVBViewer

www.TELE-audiovision.com might be also interested in?

The Specialists for TV Reception on a PC

One of the most well-known software programs for reception of digital channels on a computer is DVBViewer. This program is so popular because most digital TV PC card manufacturers include this software with their products; this has allowed DVBViewer to become the market leader. So, who's actually behind this success story? Who better to explain all this to us than the programmers themselves: the father and son team Hackbart. We met up with them in Erfurt, Germany.

The son, Christian Hackbart, was DVBViewer's programmer. „When I was eight years old I was given a Sinclair Spectrum Computer from a relative.“ That was 1986. From that point on little Christian set out to discover all the secrets of this new and wonderful technology. His father Bernd Hackbart recalls: „Christian was very proud to show me his first piece of programming - graphically created people strolling across the monitor.“

It was not surprising that Christian went on to study electronics later on at the Ilmenau Technical University. During his studies he programmed a spectrum emulator. „In 2000 I came in contact with programmers out of Bratislava and together we worked on developing a video player based on DirectShow.“

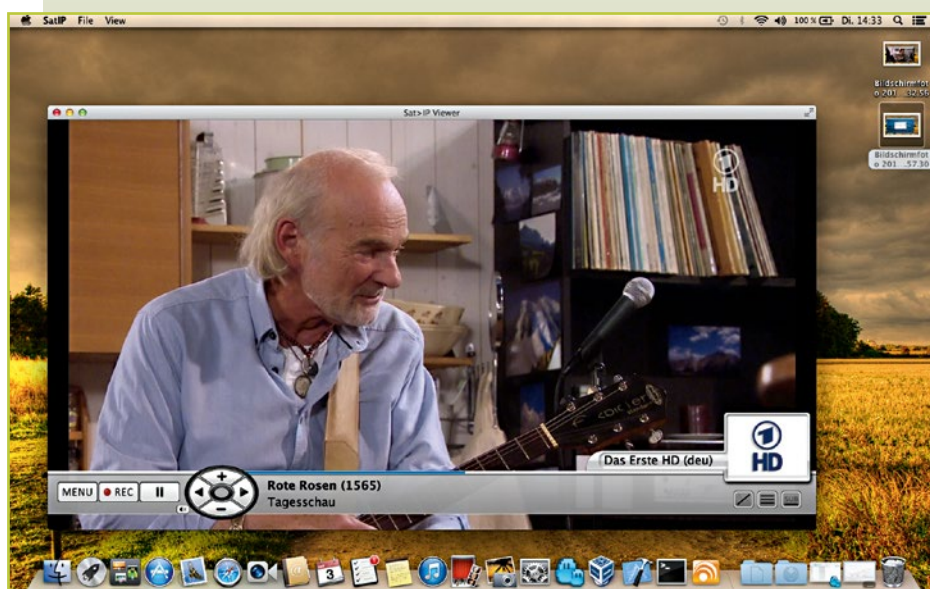
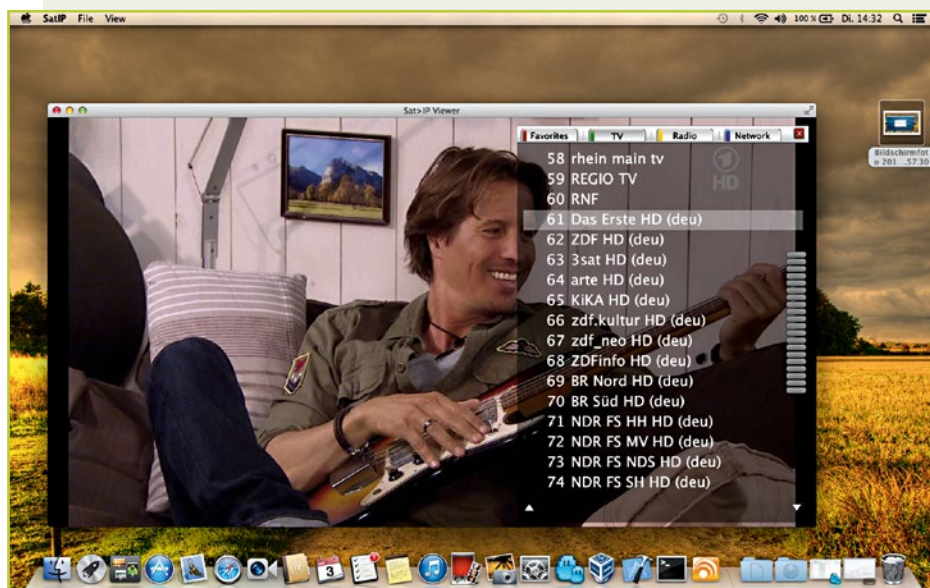
Christain Hackbart was able to take the experience that he gained from this and expand on it shortly thereafter. „There was an Internet-via-Satellite service that ceased operations in 2002. All of a sudden there were a large number of PC cards that no longer had any use. They could be purchased very cheaply.“ Christian Hackbart jumped on this opportunity and educated himself on satellite data streams with the help of these PC cards.

Because of his previous experience, he found it easy to write a software program that filtered TV channels out of this data stream and then program a user interface. „In just a few weeks I had written the first version of DVBViewer“, recalls Christian Hackbart. His father Bernd Hackbart adds, „That was in the spring of



SatIP Viewer for MAC

■ Screenshots of the brand new SatIP Viewer for MAC. For now the SatIP Viewer only comes bundled with the Windows version of DVBViewer. A MAC version is in the works. Here are screenshots of the Beta version.



16th INTERNATIONAL EXHIBITION AND FORUM

CSTB' 2014

28-30 January 2014 • Moscow, Crocus Expo



DIGITAL MULTICHANNEL TV • CABLE, SATELLITE, TERRESTRIAL FREE-TO-AIR, IPTV and OTT • HDTV • CONTENT
MULTISERVICE NETWORKS • SATELLITE COMMUNICATION • CONNECTED TV & MOBILE MULTIMEDIA

www.cstb.ru

18+

Organizer

MID'expo
МЕЖДУНАРОДНЫЕ ВЫСТАВКИ И РЫНКИ

General partner



Supported by



General information
partner

ТЕЛЕСПУТНИК
ЖУРНАЛ О ЦИФРОВОМ ТЕЛЕВИДЕНИИ

General internet
partner

COMNEWS

advertising

2002." Now the question was, what to do with this software? They discussed this amongst themselves; his father suggested a commercial distribution but Christian thought that because of his hobby it should be distributed as freeware. In the end they compromised: a light version was made available for free and a Pro version could be purchased for a moderate price of 15 Euros. This price is still the same today.

At the end of 2002 it became a little more serious for this product that essentially came about because of his hobby. A PC card manufacturer came to the two of them and offered to buy a dedicated version of the software under license for his PC cards. „Back then there simply wasn't any software that was good enough to receive TV channels with a PC card."

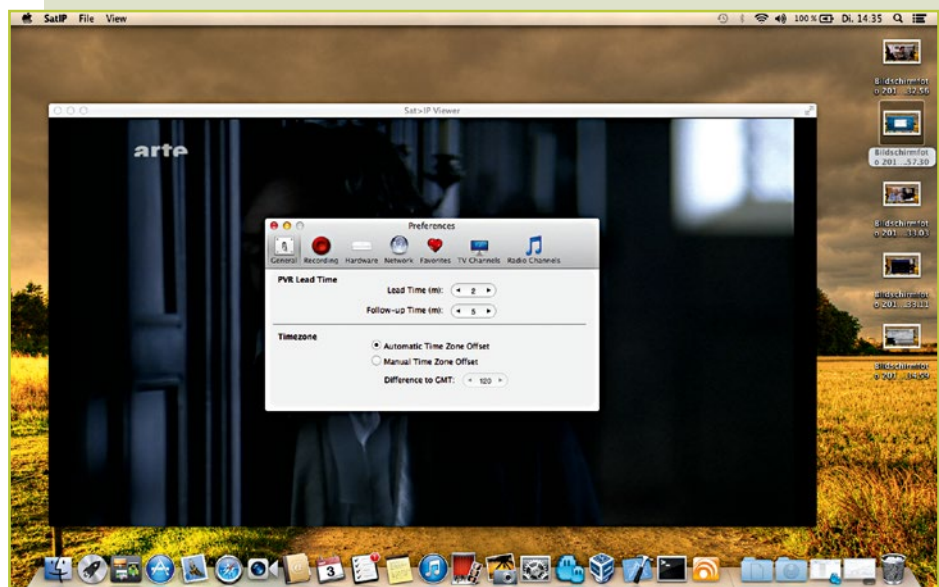
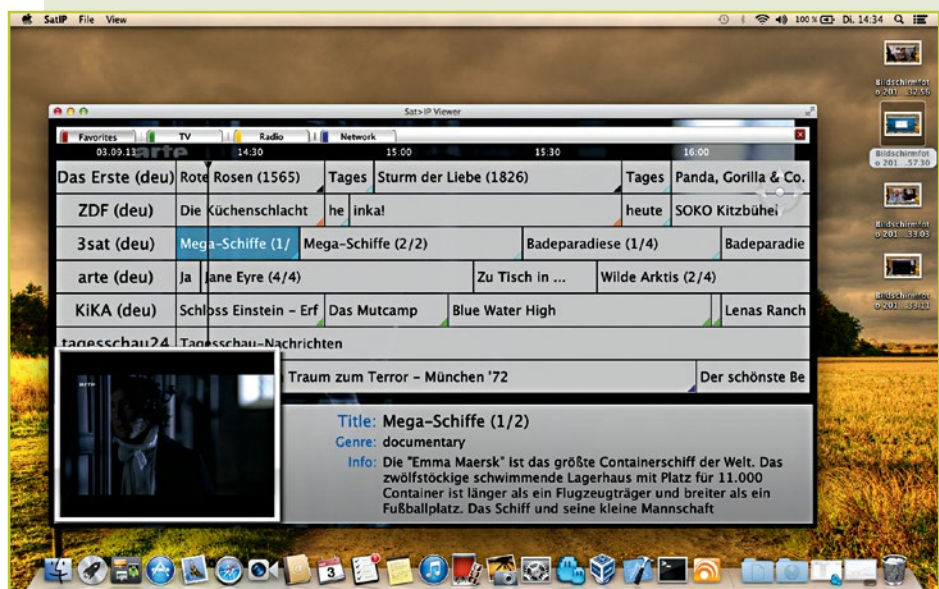
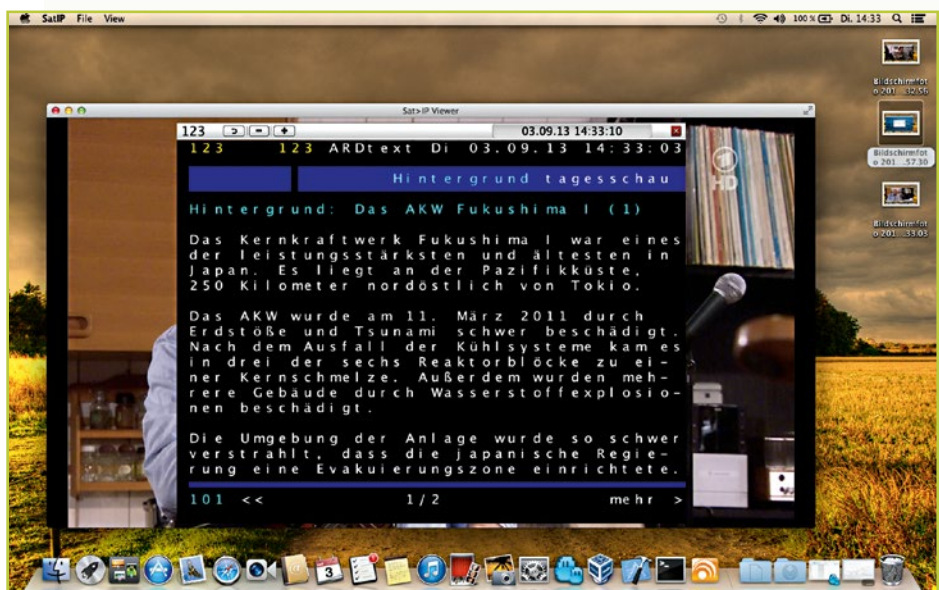
So, an especially stable running version of DVBViewer was developed that didn't have all of the features of the original version and was only available from the PC card manufacturer in a bundle with the PC card: the DVBViewer TE.

Back then the software had to be matched to each different type of PC card. „In 2005 the Windows BDA drivers became popular so we matched DVBViewer to these drivers." This move led to the breakthrough; now PC cards from every manufacturer could work with DVBViewer as long as these PC cards used the BDA drivers.

Even more programming took place in 2005: „Up until then, DVBViewer was only compatible with DVB-S. We expanded it to include DVB-C and DVB-T as well as ATSC and ISDB-T." And just like that, there was nothing anymore to stop it; demand grew and grew.

Bernd Hackbart, responsible for administration and marketing, recalls, „Our best year was in 2008 when our sales were in the lower six-digit range." Since then the market slowed down somewhat; the number of downloads had pulled back a little. But that didn't stop the DVBViewer team - development work continued. Programmer Christian Hackbart: „In 2009 we added plug-ins for MHEG and this year DVBViewer will also be suitable for HbbTV."

So where is the DVBViewer software used the most? Bernd Hackbart has the overview: „65% of DVBViewer users are in Germany, 10% are in Scandinavia and another 10% can be found in France and Italy. Outside of Europe there are quite a few users in China, including Hong Kong



CHANNEL OPPORTUNITY

The advances at play in media and entertainment have created unprecedented opportunity for you to deliver innovation to the connected consumer. The digital insight you need to accomplish your goals — and play to win — is here. Global to mobile, live to archive, sound and picture — from pre-vis to post, big data or small market, NAB Show® is your channel. And this is your opportunity.

NABSHOW
Where Content Comes to Life

Conferences: April 5–10, 2014 | Exhibits: April 7–10 | Las Vegas Convention Center, Las Vegas, Nevada USA

Join Us! #nabshow | www.nabshow.com



and Taiwan with the remaining 5% in all of the remaining countries." DVBViewer has not had much luck in the USA since the popular satellite operators use their own proprietary technology there.

What future plans does the DVBViewer team have? „Since 2006 we've been of-

fering TransEdit as a plug-in. With it you can analyze and record data streams. Right now we're considering offering a professional version of this software."

The SatIP viewer is already available. With it you can utilize the new SatIP technology. „For now this software is only available for Windows; a MAC version is being developed and versions for iOS and Android are in the planning stages", reveals Christian Hackbart. It's the last two platforms that promise to be quite inter-

esting since the number of mobile device users continues to rapidly increase and a viewer program for this group should be hugely successful.

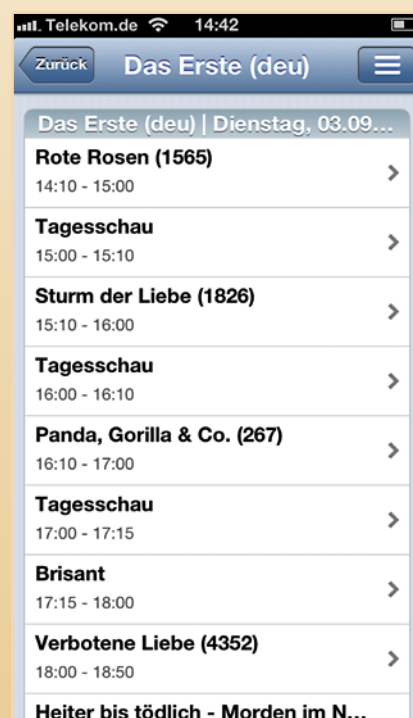
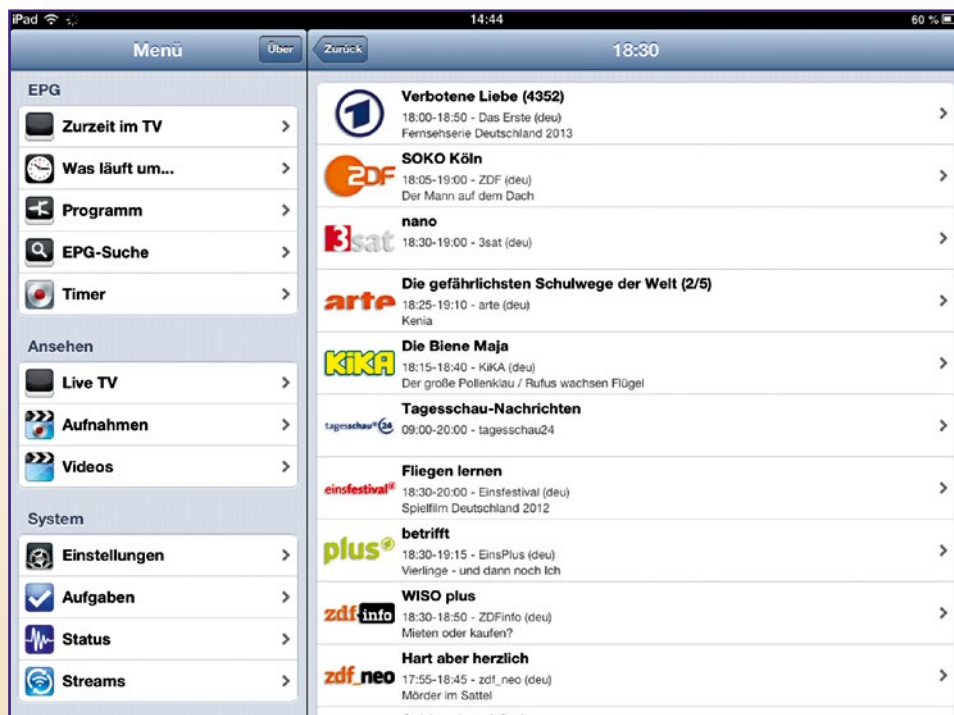
In addition to DVBViewer development, Christian Hackbart has been working together with Lars Gehre on a program called „Recording Service": „It can be used to automatically record channels." Unfortunately, Lars Gehre passed away in 2013. Since then Christian Hackbart has been continuing development on his own.

SatIPViewer for iOS

■ Also being developed: SatIP Viewer for the Apple operating system iOS. Here are some initial screenshots of the Beta version for the iPhone.



■ First screenshots of the iPad version.

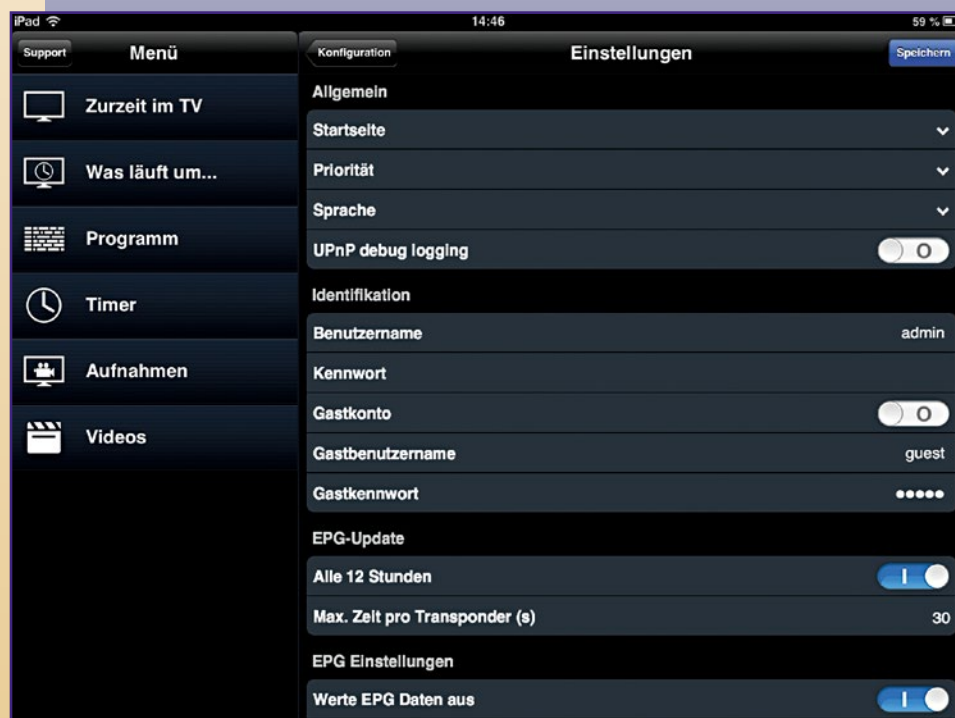
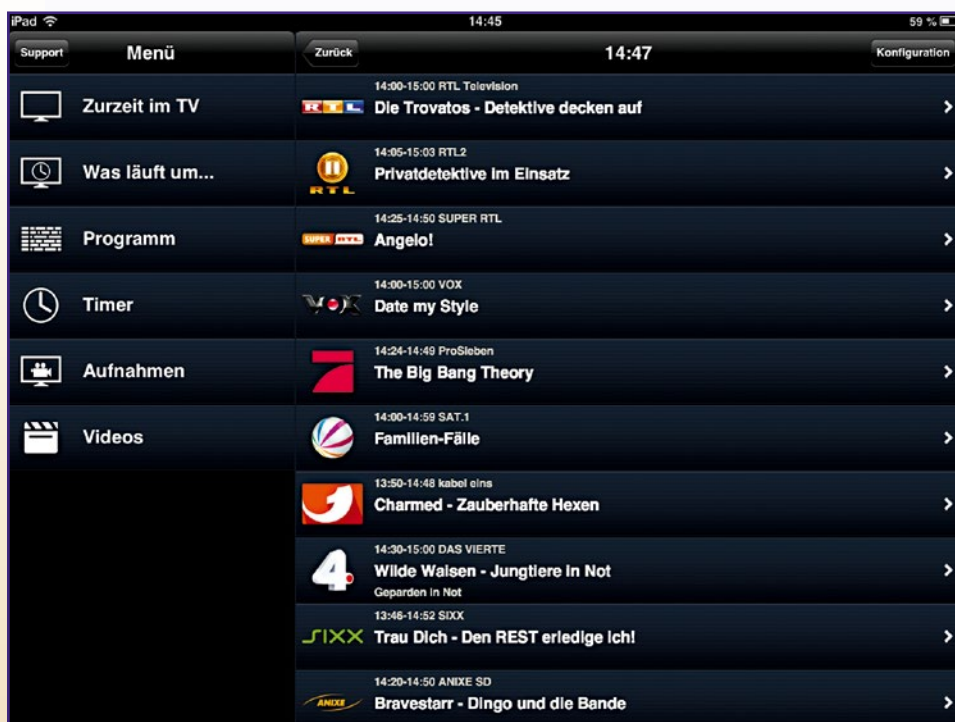
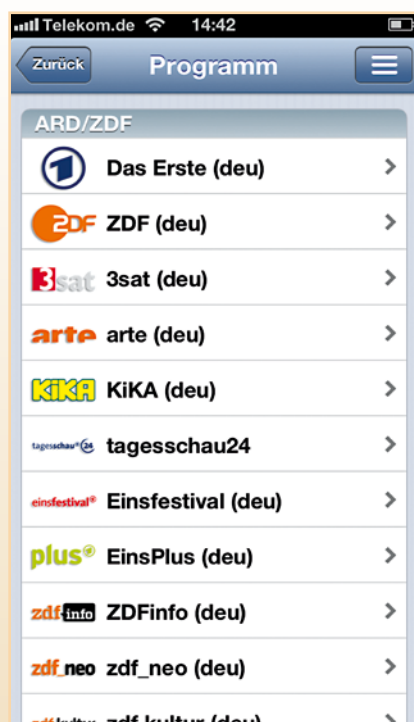


It works like this: the software automatically searches through the TV channel's EPG data and records all those programs that match the search keywords. As an example, Christian Hackbart points out that, „You can automatically record movies with a specific actor or record every movie that matches specific keywords.“ The software can also recognize reruns. „If the EPG data from a rerun is identical to an original broadcast, the software can recognize this and skip over

the rerun.“ Especially unique with the ‚Recording Service‘ is that the PC being used doesn't even have to be turned on: „With a Wakeup Call the software turns on the PC by itself, records the TV program and then, after the recording is complete, shuts down the PC automatically.“ In this way it would be possible, for example, to record your favorite programs even while away on vacation.

Naturally, the DVBViewer team is quite familiar with all of the new technologies.

Everything is set with a DVBViewer version as soon as regular broadcasts in H.265 (ultra high definition) start. The DVBViewer team is continuously working on software updates and adapting whatever new requirements come along. „By the way, we can also program custom versions for special requirements“, we learned towards the end of our visit. If you want to take advantage of the special skills of the DVBViewer specialists, all you have to do is contact them directly.



■The 'Recording Service' software has been in development since 2004. Development should be complete in 2014 at which time it should become available. It would make possible the automatic recording of TV programs through the use of keywords that the software would search for in the EPG. The user can select whether only video and audio or also the complete EPG data should be recorded.

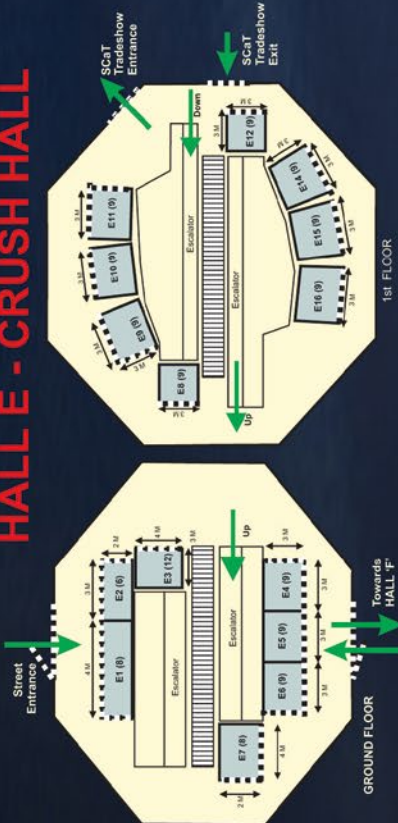
[illegible]

The 23rd



**Compulsory Digitisation Declared by The Government
Opens Up A Huge Market For Digital CATV Product Sales
*Be There To Maximise Your Market Share***

HALL E - CRUSH HALL



Organised By :

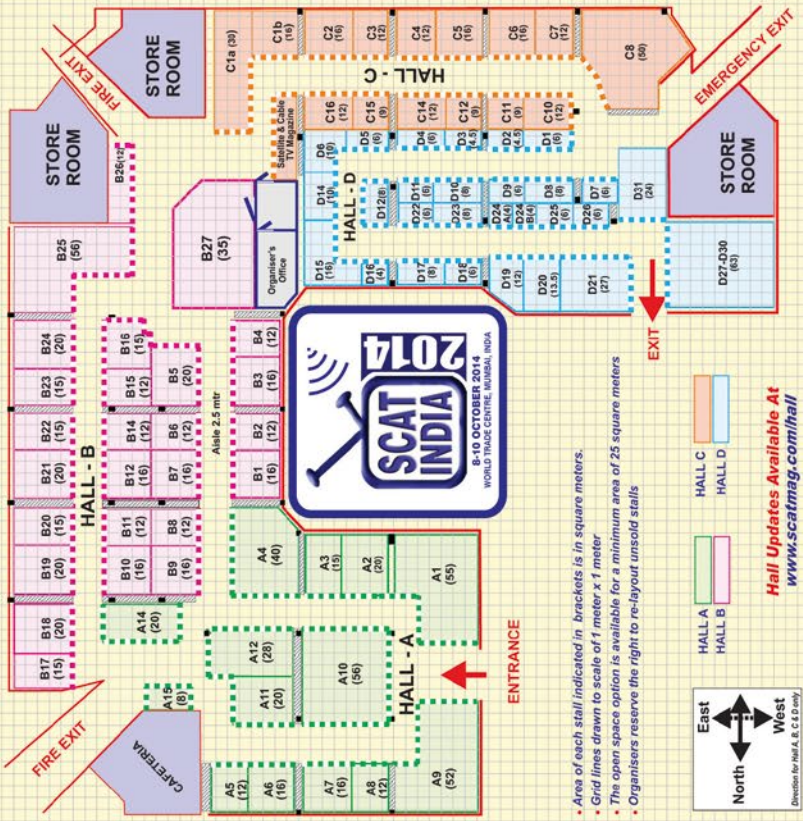


Contact

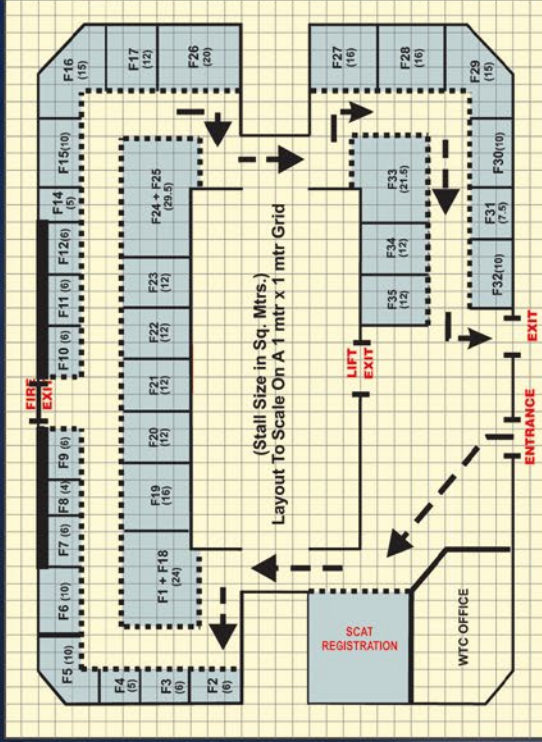
SCaT MEDIA & CONSULTANCY PVT. LTD.

27, Madhu Industrial Estate, 1st Floor, P.B. Marg, Worli, Mumbai - 400013. India
Tel. : +91-22-2494 8280 / 6660 4029 Mob. : +91-932300 6927 Fax : +91-22-2496 3465
Email: scatsmag@scatsmag.com Website : http://www.scatsmag.com/scatindia

HALL LAYOUT 2014



HALL F - TOWER BLOCK



Luxury 5-Star May Fair Hotel Installs GlobalInvacom's FibreIRS

- *Distributes four satellite signals via fibre optic cable*
- *Every guest room has a TV with tuners for terrestrial and satellite signals*
- *GlobalInvacom technology selected for its extremely high reliability*
- *FibreIRS provides great flexibility*
- *All Radisson Group hotels will eventually switch over to the Hybrid system*

■ The May Fair Hotel in London. Stars and other prominent people stay at this hotel which is located near Piccadilly.



More Than 400 FTA TV Channels in Every Room

The May Fair Hotel in London is among one of the very first addresses in London. London's Fashion Weeks take place here and many well known stars stay here as well. One of the suites even has its own elevator that takes you not to the lobby but rather its doors open to one of the side streets. This lets prominent figures make their way to their hotel room without having to pass waiting fans and Paparazzi.

The May Fair Hotel lies north of Green Park not far from Piccadilly. It's a 5-Star hotel and is part of the Carlson Rezidor Hotel Group. This group operates more than 1300 hotels around the world. Radisson is one of the brand names of this hotel group and Radisson Blu represents the 5-Star luxury hotels of this group. In Great Britain the Carlson Rezidor Group operates 14 hotels under the name Radisson Blu; the best of these hotels is the May Fair Hotel. There's no doubt whatsoever: the guests of this hotel only get the best. So, how did the hotel proceed to offer its guests the best TV service?

The answer to this question was provided by Nick Kalsi. Since 2000 he has been the hotel group's IT adviser - he is responsible for anything and everything that has to do with electronics in the hotel. This includes the hotel's own security system as well as the automatic detection of the mini bar contents. As far as rooms go, Nick Kalsi is also responsible for the audio systems in the rooms, that is, the 5.1 sound system that you'd naturally find in a hotel of this class, plus the Internet access and above all the TV service.

"Up until now we've been operating a system based on IPTV but we haven't been satisfied with its performance", reveals Nick Kalsi, "there were simply too many problems." Every time a TV system in a room failed, guests were reluctant to pay for the cost of the room. "The failures were simply too high." There was yet another reason why to





■ In the luxury Suite 901: IT specialist Nick Kalsi shows us how to use the SAMSUNG SmartTV that is connected to the hotel's new Hybrid TV system. It provides guests with access to over 400 TV channels. Underneath the TV is a Soundbar from SONOS that provides the sound from the TV and is part of the room's Surround Sound system.





rethink the TV service in the rooms. „Years ago PayTV or Pay Movies was an interesting side business for hotels but when we took a closer look at the numbers, we found out that only two hotels in our group still record a profit from PayTV in the guest rooms.“ The decision was obvious; whatever new TV system would be installed, it would only be an FTA-based system.

So, what could they do? Nick Kalsi found the right partner in Neil Kumar from the company Hypex. Neil Kumar has been using GlobalInvacom's fibre optic LNBs since 2009: „Since then we've set up more than 20 systems using these fibre optic LNBs.“ Neil Kumar began planning for a new TV system for the May Fair hotel with one specific condition: complete reliability of the TV service in each room. His right hand

man is Steve Cowling; he has been performing installations for 25 years. Together they're creating the plan for a Hybrid system: „We had to consider several important requirements. Since the May Fair Hotel is typically booked 80 to 90% of the time, one requirement was that we used the existing infrastructure in the rooms as much as possible.“ This meant that the existing coax cabling had to be included in the new TV system plan.

„Another requirement was to include as many channels as possible from the Middle East and North Africa.“ This meant satellite reception systems would be needed for NILESAT and BADR. „The third requirement was the integration of the hotel's own information system such as the hotel's own TV channel and billing system.“ This requirement was

achieved using SAMSUNG's SmartTV, however, it first had to be adapted for use in the May Fair Hotel.

Based on all this Neil Kumar decided on a Hybrid system: „For the necessary satellite reception and the transmission of the satellite and terrestrial signals we opted to use the GlobalInvacom fibre optic system. We used the existing coax cabling system to deliver the signals to the rooms and therefore provided signal distribution on each floor through multiswitches.“

The May Fair Hotel has more than 400 rooms including 12 suites. „We couldn't afford to experiment here; we decided therefore to initially test our new Hybrid system.“ A real system equipped with four SAMSUNG TVs was set up at Hypex. The system was monitored over the course of four months to see how it



1. A peek in Suite 901's living room. For about 4000 British Pounds a night you get an enormous living room, two large bedrooms each with its own bathroom, a kitchen as well as a balcony with a fantastic view overlooking London. And let's not forget, there are also three TVs.
2. A look from Suite 901's balcony. In the background can be seen the "London Eye". Stars and the super rich stay in this suite at the May Fair Hotel.

behaved. „We could not detect any system dropouts.“

The first hotel in the Radisson chain to be fitted with the new Hybrid system was the 100-room Edwardian Sussex Hotel. „The system operated 100%, there was no downtime.“

When it became clear that the technology of fibre optic LNBs and fibre optic signal distribution to each floor and the subsequent signal distribution to each room using the existing coax cable all functioned perfectly, the retrofitting of the May Fair Hotel was the next target.

„In January 2013 management decided to convert the May Fair Hotel to the Hybrid system and in April 2013 this conversion was successfully completed.“ Since then the guests in the hotel haven't complained about any more





3. If you don't feel like watching TV, you can choose from a huge variety of music titles and listen to it all over the built-in 5.1 sound system.

4. If you brought your own CDs you can simply insert them in the Bose player. You can even plug in your MP3 player into the Bose player.



dropouts. „The most important thing is the satisfaction of our customers”, emphasizes Nick Kalsi.

Hypex's Neil Kumar, who created the technical design of the hybrid system, highlights another aspect of the fibre optic system that from the practical side of things is extremely important: „With the FibreIRS system a change in plans is not a problem at all. For example, the installation of the four satellite antennas was originally planned for one of the corners on the roof. With relatively short notice it was decided

that the installation had to take place on the opposite end of the roof. With conventional technology we would have first had to revise the entire plan, but the optical LNBs give us great flexibility allowing us to immediately implement this change.”

Even during the upgrade work there were unforeseen changes to the installation location but since cable lengths are not a factor in fibre optic systems, these changes did not create any problems. “You don't often think about the great flexibility of a fibre optic system,

NETWORK WITH SMART MINDS

@

22nd

"Connecting India"

Convergence India 2014

International Exhibition & Conference

Pragati Maidan, New Delhi

21-23 January 2014



Technologies on Display

- Telecom
- Broadcast, Cable, Satellite
- Information Technology
- Mobility
- Entertainment
- Information Security, etc.

Supporting Associations



Supported by



Members



Partners



Organiser



Exhibitions India Group

ISO 9001:2008 & ISO 14001:2004

Supporting Journal

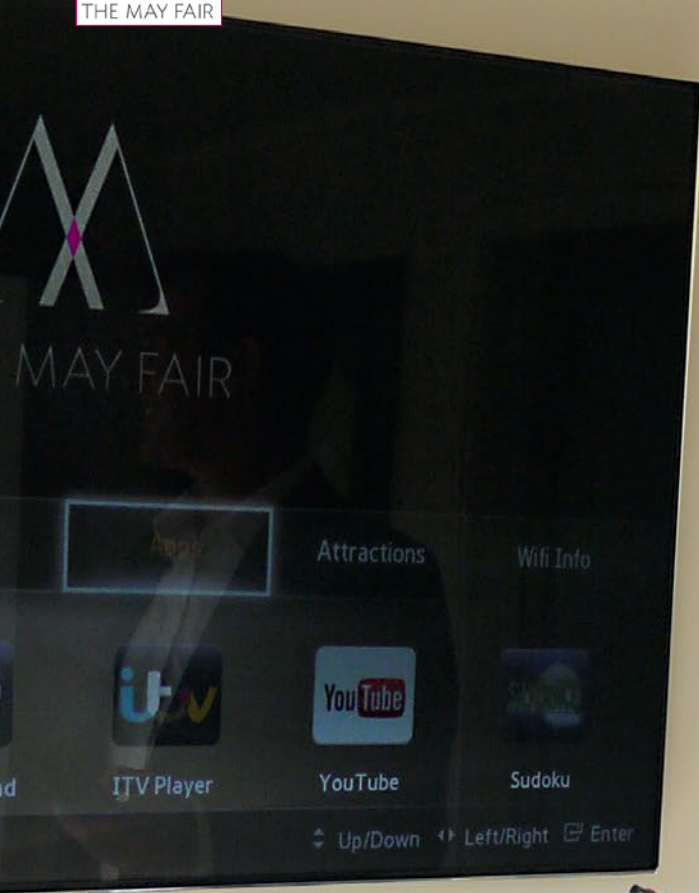


For Exhibition & Conference, please contact:

Mr. SJ Singh, Vice President, sjsingh@eigroup.in

217-B, Okhla Industrial Estate, Phase III, New Delhi - 110 020 | Tel: +91 11 4279 5000 | Fax: +91 11 4279 5098

www.convergenceindia.org



programming to their guests reliably and without any dropout in service. The implementation of GlobalInvacom's FibreIRS is even more appealing owing to the fact that any future changes to the existing room distribution could be made at any time without any problems. Since fibre optic cables can be split (nearly) as often as necessary, changes would be simple and extremely easy to implement.

Clearly, the May Fair Hotel has found the ideal technical TV service solution for their guests thanks to the Hybrid system.

5. Lee Allen is GlobalInvacom's UK Sales manager. He's happy that the May Fair Hotel installed the FibreIRS. It's a one-of-a-kind reference for GlobalInvacom's system. This TV happens to be in Suite 901's master bedroom.

6. The connection side of one of the 460 SAMSUNG SmartTV's in the May Fair Hotel. The 12 suites each have three TVs while the remaining almost 400 rooms each have one TV.

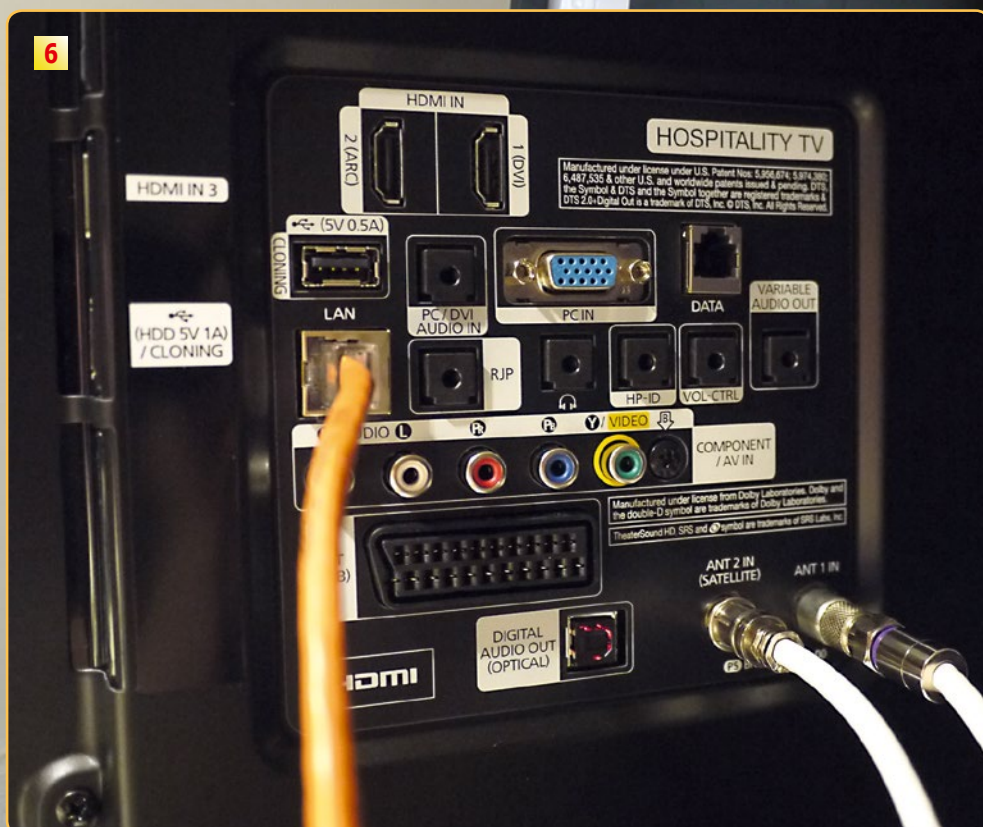
yet in reality it is often the reason for a problem-free installation."

The May Fair Hotel's TV system carries the following TV channels: "We loaded the first 50 channels with terrestrial TV signals. Beyond that there are up to 380 FTA channels from the ASTRA 2, HOTBIRD, NILESAT and BADR satellites as well as roughly 40 radio channels", counts Nick Kalsi, "On top of all that we also carry all the Sky Sports channels."

Programming the SAMSUNG Smart-TV is handled from a central location: "We can add or remove channels at any time. The channel list is automatically transferred to every TV." Each SAMSUNG SmartTV has two tuners, one terrestrial and one satellite tuner, plus there's a connection to the Internet for WebTV.

Nick Kalso highlights yet another special feature of the SAMSUNG TVs: "The TVs are equipped in such a way that the cache is automatically deleted after each use. Guests who had used, for example, Facebook through the TV can be certain that none of their information can be viewed by the next guest." This is a very critical aspect with devices that are consistently used by different guests.

So, this is how a five-star hotel is able to provide a wide variety of TV



Asia-Pacific's
Largest Broadcasting Show



China International Exhibition Center, Beijing
March 2014

As the largest broadcasting technology and equipment expo in the Asia-Pacific region, CCBN boasts 69,000 square meters of exhibition space. It attracts more than 1,000 exhibitors and 90,000 professional visitors from more than 30 countries. CCBN is your access to Chinese marketplace.



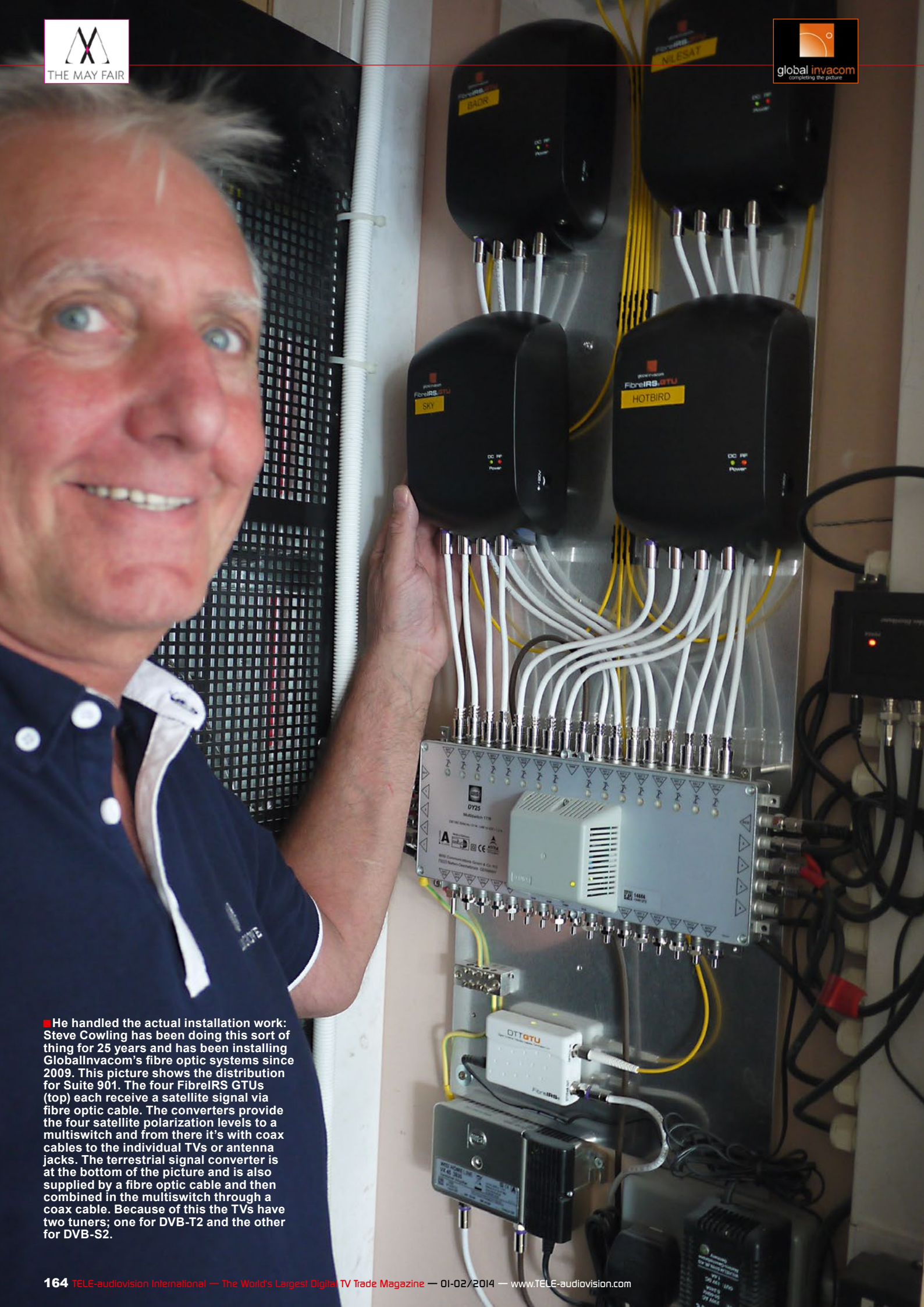
We look forward to meeting you
at **CCBN2014 in Beijing!**



Hosted by **State Administration of Radio, Film and Television**

VIP Tour	-	Tel.: +86-10 86092066 Fax: +86-10 86091774 Email: futao@china.com futao@ccbn.cn
Visitor	-	Tel.: +86-10 86093437 Fax: +86-10 86091774 Email: zhangshuai@ccbn.cn
Visa Application	-	Tel.: +86-10 86091774 Fax: +86-10 86091774 Email: liyang@ccbn.cn
Booth Application	-	Tel.: +86-10 86094092 Fax: +86-10 86094090 Email: wuhongchuan@gmail.com

www.ccbn.tv



■ He handled the actual installation work: Steve Cowling has been doing this sort of thing for 25 years and has been installing GlobalInvacom's fibre optic systems since 2009. This picture shows the distribution for Suite 901. The four FibreRS GTUs (top) each receive a satellite signal via fibre optic cable. The converters provide the four satellite polarization levels to a multiswitch and from there it's with coax cables to the individual TVs or antenna jacks. The terrestrial signal converter is at the bottom of the picture and is also supplied by a fibre optic cable and then combined in the multiswitch through a coax cable. Because of this the TVs have two tuners; one for DVB-T2 and the other for DVB-S2.



CABSAT

www.cabsat.com

11 - 13 MARCH 2014

DUBAI WORLD TRADE CENTRE

NEW FEATURES. NEW TRENDS. NEW OPPORTUNITIES.

CELEBRATING 20 YEARS OF CONVERGING, CONNECTING AND COMMUNICATING.

THE MIDDLE EAST, AFRICA AND SOUTH ASIA'S
NUMBER ONE PROFESSIONAL CONTENT MANAGEMENT EVENT



ACQUISITION &
PRODUCTION



PRO / BROADCAST
AUDIO



MANAGEMENT
SYSTEMS



POST
PRODUCTION



CONTENT &
COMMUNICATION



CONNECTED
DEVICE



DISTRIBUTION &
DELIVERY



SATELLITE &
COMMUNICATIONS

7

7. Four satellite dishes on the roof receive the satellite signals.

8. The four satellite dishes viewed from the building across the street. They are used to receive ASTRA 2 at 28.2E, HOTBIRD at 13E, NILESAT at 7W and BADR at 26E.

9. The satellite signals are routed to all the floors via fibre optic cable by this distribution box



8



Japan's only broadcast & telecom cross-readership magazine

B-maga

Monthly Broadband * Broadcasting * Business Magazine

Cable Television, Multi-Channel Satellite Broadcasting, IPTV, Mobile TV etc.



- Latest industry trends
- Channel operator business reports
- Technology & equipment
- Media industry news

2013年9月10日発行(毎月10日発行) Vol.12 No.9 通巻136号 <http://www.satemaga.co.jp>

デジタル時代のメディアビジネスマガジン
Monthly Broadband * Broadcasting * Business Magazine

B-maga

9

2013 SEPTEMBER

Interview
小牧次郎氏 スカパーJSAT(株) 執行役員常務 有料多チャンネル事業部門 放送事業本部長
Jiro Komaki, Managing Executive Officer Group President Broadcasting Business Group Multichannel Pay TV Business Group, SkyPerfect JSAT

CS Channel Focus
時代劇専門チャンネル&スカパー! Jidaigeki Senmon Channel & SkyPerfect TV!
衛星劇場 Eisei Gekijo

CS/BS/CABLE/BBの最新加入者数
Subscriber Trends for BS & CS Broadcasting, Cable, Broadband
CSチャンネル加入世帯数TOP50ランキング
Top 50 Subscriber Count CS Channel Rankings

Future Technology

ケーブルテレビの 今と未来を考える

Contemplating Cable TV Today and Tomorrow

Interview 福岡 徹氏 総務省 情報流通行政局
Toru Fukuoka, Director General, Information and Communications Bureau, MIC

**ケーブルテレビ事業者 215社に聞いた
ケーブルテレビの今と未来を大調査!!**
Extended survey of cable TV today and tomorrow: 215 cable operators respond

IP-VODプラットフォームを検証 Validation of IP-VOD platforms
アクティバ/ジュビターテレコム&ジュビターエンタテインメント/ブロードメディア
Activa Corp. / Jupiter Telecom & Jupiter Entertainment / Broadmedia Corp.

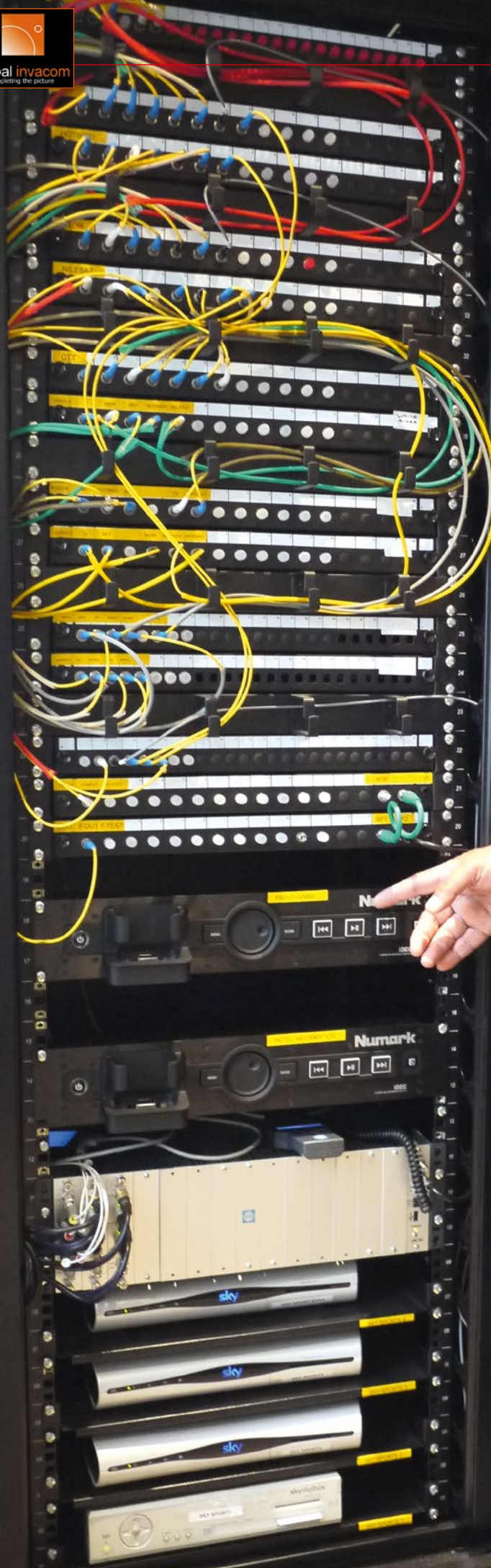
ケーブルテレビの技術トレンド2013 Cable TV 2013 technology trends
ARRIS Group/ジャパンケーブルキャスト/メディアキャスト
ARRIS Group / Japan Cablecast / Mediacast



10. The BADR at 26E is being received with a 1.8-meter dish

11. The UHF antenna is aligned with the broadcast tower Crystal Palace

11



■ The actual TV control centre in the May Fair Hotel: Neil Kumar from Hypex is responsible for the technical side of the operation. Here we see the fibre optic cable distribution switches. The two components that Neil is pointing to generate the hotel's own TV channel. Sky satellite receivers can be seen at the bottom of the rack. They are used to receive the Sky Sports channels and are fed into the hotel's TV network. Neil Kumar explains, "We installed about 2.5 km (about 1.5 miles) of fibre optic cable in this hotel."

The SES satellite fleet & coverage

SES[^]

your satellite company

SES, a world-leading satellite operator, providing reliable and secure satellite communications solutions to broadcast, telecom, corporate and government customers worldwide.

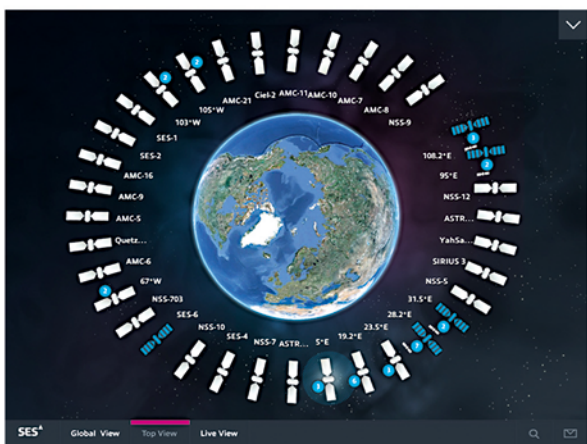


SES fleet & coverage
now in an iPad
app!



"We are pleased to showcase our fleet and coverage using the capabilities of the iPad, with 3D earth navigation and an augmented reality view. This tool illustrates the concept of satellites in space and coverage over the earth, as well as provides information that will enable our customers to learn more about our global fleet. With this new application, we are literally putting our satellite fleet in the hands of our customers."

(Niclas Friese Greene, Senior Vice President of Marketing and Corporate Communications, SES)



SES[^]
Headquarters

Château de Betzdorf, L-6815 Betzdorf, Luxembourg
Tel: +352 710 725 1 ■ <http://www.ses.com>

In the Service of DISH: TigerTech Media

■ Here in La Verne in Los Angeles next to the small airport and the Fairplex Race Tracks is where you'll find TTM's warehouse (TigerTech Media). It has been here since 2005. 20 employees work here handling the shipments of satellite systems for DISH.

- *Ensures the smooth supply of satellite products for DISH*
- *Produces and procures many of DISH's products*
- *Organizes the stocking of DISH products according to special marketing activities*
- *Processes a number of TV channels from Asia for DISH*





The Unknown Service Provider for Satellite Operator DISH in the USA

Alexander Wiese

One of the largest providers of satellite TV programming is DISH in the USA. As a PayTV provider, DISH's business principle is based on the monthly subscription fees paid by viewers and that means that these viewers receive the necessary reception equipment at no cost; it's actually built into the cost of the subscription. DISH even installs the equipment and because of the large numbers of subscribers, DISH has become one of the largest customers of satellite reception technology. So, where do they get their receivers, dish-



■ A look in the enormous TTM warehouse. The pallets in the foreground are loaded with satellite dishes for DISH. Further back are pallets full of antenna masts, LNBs and satellite receivers. From here TTM delivers to DISH's warehouses.

the DISH installers. If DISH plans any marketing action or technical changes, TigerTech organizes the preparation of the products. In this way TigerTech acts both as a producer and as a contractor to third-party companies as well as a logistics specialist.

TigerTech was founded - it should come as no surprise - by „Tiger“. That is the nickname of the founder who was born in Taiwan; his parents came from Shanghai. Tiger came to San Francisco as a student and quickly began setting up businesses. Today he lives in Shanghai where his parents came from and it's from there where he runs his business empire which in the meantime has grown very large. Shanghai is also the location where some of DISH's satellite receivers are manufactured. On the other hand, the satellite dishes and LNBs are made in Taiwan.

These products are stored in large quantities in four warehouses in western USA. The main warehouse is located coincidentally enough near DISH's headquarters outside of Denver, additional warehouses are located in Hounsville, Sacramento and in La Verne in Los Angeles right across from the Fairplex Race Tracks. And it's this warehouse that we here at TELE-audiovision got a closer look at and for good reason: this is where the hub for a large number of Asian TV channels can be found. It's these channels that DISH incorporates into their international programming packages.

These channels used to find their way from Asia to the USA via satellite feeds. Those days are over; today fiber-optic cables laid across the ocean floor are used to transport these channels from one continent to another. In DISH's case it works like this: all the fiber-optic lines from the various Asia-Pacific telecommunications companies land in Los Angeles in one single building: One Wilshire located at 624 South Grand in Los Angeles. Here every company operates a cage in which their own fiber-optic lines end up. From these cages the links with the fiber-optic lines of those companies that will further distribute these channels takes place.

TigerTech operates one of these cages where it collects the lines from the TV channels out of Asia - currently almost 50 TV channels. Some of these channels are routed live to DISH who then redistributes these channels to

es, LNBs, etc. from? And how did DISH organize this?

First of all, DISH outsourced the technical side of the company to ECHOSTAR. They deal with all of the hardware which includes everything from the satellites in orbit, that are used not only for DISH programming but are leased out to other customers as well, all the way to the reception equipment for DISH's subscribers. The satellite reception systems are stored in a large warehouse near Denver, Colorado ready for delivery to DISH's own installers or to

their authorized contractors. But what takes place before these products even reach DISH's distribution warehouse? And who is responsible for the procurement and manufacturing of these reception systems?

One of the companies in the background that manages and organizes all of this is TigerTech. They are responsible for product procurement for DISH's customers in the western portion of the USA. TigerTech stores all the products in four very large warehouses. The products are sent from here to all

customers in their international programming packages. 25 of these channels, though, must first be processed, for example, converting them from one TV standard to NTSC or they are part of a multiplexed group of channels where the other channels are not needed. Some channels might even be redistributed with a time delay to make the programming more appropriate for viewers in the USA.

This includes channels not only from China and Taiwan but also from India, Pakistan, Korea, Vietnam, the Philippines and even Australia. That's why TigerTech named their warehouse in Los Angeles „TTM“, for „TigerTech Media“, since the control center for the processing of these channels can be found in a small room in this warehouse.

All of the processed channels are routed from here to DISH in Denver. Almost as a side job, TTM also delivers some TV channels to cable operators and terrestrial TV stations such as Channel 18 and Channel 44 in Los Angeles. These stations broadcast Chinese and Korean programming. Even ICN (we reported on them in the 09-10/2012 issue of TELE-audiovision) receives some TV channels from TTM from this room.

So this is how from behind the scenes a large company like TigerTech is able to provide for the smooth running of one of the largest programming providers in the world. TigerTech is the Hidden Champion behind DISH in the USA.

■ A look in TTM's media room. This is where the optical lines carrying the Asian TV channels end up, are processed and then further distributed to DISH.



■ One of the TV channels that DISH includes in one of their many international programming packages: a business news channel from Taiwan that passes through TTM's media room before reaching DISH.

AE120✓

Mini Optical Power Meter

- Pocket size
- Cost-effective
- Power efficient: Up to 50 hours working time with 2 Ni-MH 5AA batteries
- Optical-detector: 3000µm Ge
- Wavelengths: 780nm~1700nm
- Input Range: -43dBm ~ +27dBm
- Basic Accuracy: ±1% and ±0.05dB
- Full Range Accuracy: ±5% and ±0.21dB
- Optical Connector: FC/SC



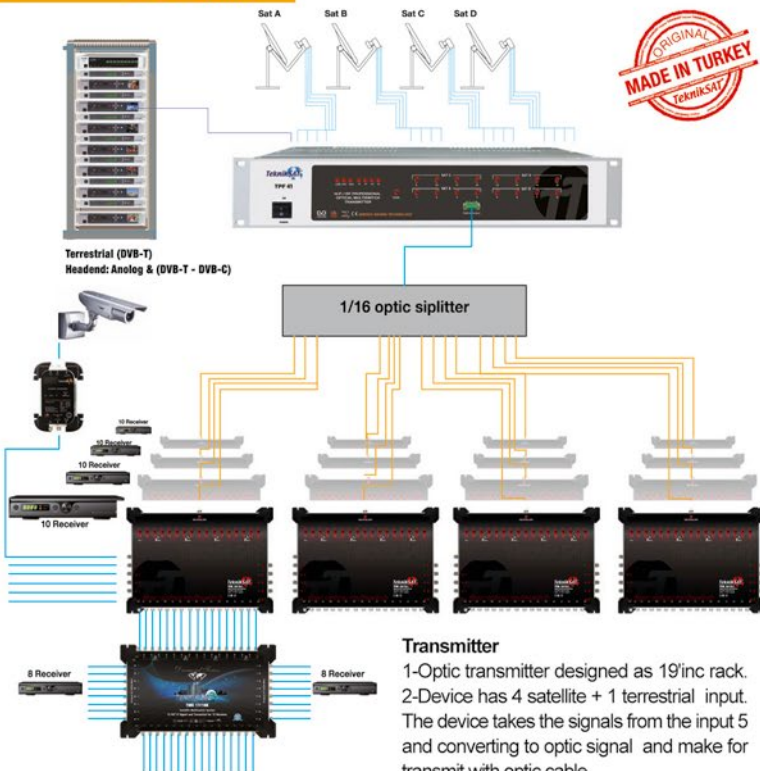
Deviser Electronics Instrument Co., Ltd

No 8, Haitai Chuangxin 3 Road, Hi-Tech Industrial Development Area, Tianjin 300384, China

Tel: +86-22-27682088, 27645003, ext 803 ■ Fax: +86-22-27645002

Http://www.devisertek.com ■ E-mail: overseasbiz@deviser.com.cn

DEVISER



Transmitter

1-Optic transmitter designed as 19"inc rack.
2-Device has 4 satellite + 1 terrestrial input.
The device takes the signals from the input 5 and converting to optic signal and make for transmit with optic cable.

3-The Device fan cooling.

4-Optic signal out power is 2 mW. Optic out signal can be transmitter max .32.

Multiswitch

1-Optic Multiswitch has 1 optic input , 10 subscribers output and 17 cascade signal output.
2-Max. Optic input is 2mW.



tekniksatsat®

GROUP

"First in the world"

FIBER OPTIC ONE CORE 4 SAT + 1 TERESTRIAL MULTSWITCH



TFM 41/10 C

1 Optic input (4 SAT +1 TERR.)
10 Subscriber output

Available cascade models of this series.



TPF 41

4 SAT (16 IF + 1 RF)
One core

■ This is where the data lines for the west coast of the USA come together: the optical cables from the Pacific telecommunications providers land here together with the optical lines from US providers of which TigerTech is one. The building can be found in central Los Angeles



TV via network cable

- For 10" or 19" rack mounting or directly on wall
- RF amplifier adjustable 0–20 dB
- Low loss balun cable RJ-45 to IEC
- CAT cable length up to 50 metres
- Gain and tilt adjustable on outputs



Catline amplifier TVB-02 with tilt and 4 adjustable RJ-45 outputs.



www.macab.com

catline TV

SPAROS SAT HD

SE SPAUN™
www.spaun.com Quality made in Germany

SATELLITE TV METER

SPAROS SAT HD*

- High quality and bright display (4.3 inch)
- MPEG4-display and measuring
- SCR single cable switching commands
- DiSEqC 1.x and SCR EN 50494 control
- Spectrum analysis
- Robust, impact-resistant housing
- Splash-resistant keypad

* also available as Combo Analyzer
SPAROS SAT HD DVB-C
SPAROS SAT HD DVB-T



SPAUN electronic GmbH & Co. KG · Byk-Gulden-Str. 22 · 78224 Singen
Tel.: +49 (0) 7731-8673-0 · Fax: +49 (0) 7731-8673-17
Email: contact@spaun.com · www.spaun.com

The Decision Makers

in Worldwide Digital TV Industry

according to TELE-audiovision's Company Reports

DVBViewer, Germany - PC Card Software

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Marketing
Bernd Hackbart



Software
Christian Hackbart

www.TELE-audiovision.com/TELE-audiovision-1401/eng/dvbviewer.pdf



- Light version available at no cost since 2002
- Regular software updates

- Can receive all digital TV standards
- Preconfigured for UHDTV

BSD, Brazil - Digital TV Internet Forum

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



GM
Marcos Benni

www.TELE-audiovision.com/TELE-audiovision-1311/eng/bsd.pdf



- Largest Digital TV Internet forum in Brazil
- Reaches 400,000 readers every month

- Starting a new form of digital TV online shopping with a video shop
- Also active in IPTV and IP Radio

Elnet, Iceland - Distributor

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



GM
Asmundur Einarsson



Sales
Magnus Eyjolfsson

www.TELE-audiovision.com/TELE-audiovision-1311/eng/elnet.pdf



- can supply everything from DVB transmitters to DVB receivers
- always adapts its large range of products to meet current market demands

- believes in terrestrial and satellite DVB reception
- expects fibre-optic products to gain popularity in near future

GlobalInvacom, UK - Fibre Optic Products

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Business Development
Gary Stafford



Sales Director
Ivan Horrocks



Technical Support
Matt Presdee

www.TELE-audiovision.com/TELE-audiovision-1311/eng/globalinvacom.pdf



- Invented the new satellite IF transmission technology via fibre optics
- Five million FibreIRS connections are expected by 2015
- Through continuous technological improvements FibreIRS can now serve more than 4000 connections from a single LNB; for professional applications it's several 10,000's

- 14 Multiple R&D Engineers are consistently working to improve the system
- Northern Europe, North Africa and Southeast Asia are the largest FibreIRS markets

Oreind, Iceland - Distributor

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Founder
Baldur Sveinsson



Founder
Sigurour Gunnarsson

www.TELE-audiovision.com/TELE-audiovision-1309/eng/oreind.pdf



- successful in the home electronics segment
- all antenna installation material always in stock

- focus on IPTV for sustained business development
- sizable repair shop for home electronics equipment

Deviser, China - Signal Analyzer

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



President
Zhong Changgan



MD
Liu Lian Jun



Production Manager
Li Hong Xiao



Sales
Jason Wu

www.TELE-audiovision.com/TELE-audiovision-1307/eng/deviser.pdf



- new company headquarters streamlines production and administration at a single site
- expansion of a dedicated repair and logistics centre in and for Europe

- strong growth in export markets
- state-of-the-art test benches for EMS and overvoltage protection

Dexin, China - Digital TV Head-ends

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



GM
Sun Yu

www.TELE-audiovision.com/TELE-audiovision-1307/eng/dexin.pdf



- Established in 1994 in Chengdu
- Specializes in professional tv head-end equipment

- 50% of their production is exported
- Intense quality controls

Forcetek, China - IPTV Solution Provider
www.TELE-audiovision.com/TELE-audiovision-1307/eng/forcetek.pdf

Sales
Ren
Nan

Marketing
Lan
Haidong


- offering technically mature and fully-fledged IPTV solutions
- large Chinese movie provider as showcase customer and shareholder

- small-scale IPTV systems can be realised on a tight budget
- excellent video quality thanks to P2P technology

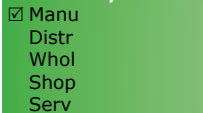
Tianditong, China - Antennas
www.TELE-audiovision.com/TELE-audiovision-1307/eng/tianditong.pdf

GM
Bang Xian
Peng

Production Manager
Bang Xing
Peng


- uses state-of-the-art production machinery
- fully automatic quality control during the production process
- volume production of dish sizes from 45 to 180 cm

- ready for production of large quantities at short notice
- environmentally-friendly production according to international standards

ELDTEC, Brasil - Dish, Antennas and Cables
www.TELE-audiovision.com/TELE-audiovision-1305/eng/eldtec.pdf

Sales Manager
Jefferson
Cruz


- Large market coverage within Brazil
- OEM production for other brand names

- Concentration on just a few product series
- Also offers antennas for 2.4 and 5.8 GHz (WiFi)

LIANXING, China - Satellite Dishes
www.TELE-audiovision.com/TELE-audiovision-1305/eng/lianxing.pdf

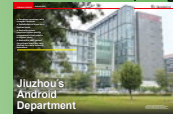
Product Manager
Wen Liang
Yuan

Sales Manager
Liao Wen
Fei


- using only top-quality materials
- individually checking each single component

- offering antennas for the C and Ku bands
- very successful on the Japanese market

Jiuzhou, China - Android Receivers
www.TELE-audiovision.com/TELE-audiovision-1303/eng/jiuzhou.pdf

Product Manager
Yongjun
Zhang


- Develops receivers with complex features
- Installation of Apps on a limited basis
- Android system requires higher quality components that results in

- higher costs
- Android is well-suited for private users but only limited for cable network operators

Sat-Link, China - Signal Analyzers
www.TELE-audiovision.com/TELE-audiovision-1303/eng/sat-link.pdf

GM
Qing
Zhang Lin

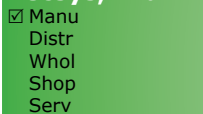
Project
GuiHuang
Huang

Sales
Nancy

R&D
Han Guang
Rong


- Only five years on the market
- Focusing on the signal analyzer product group
- Offers signal analyzers in four function classes and four price classes

- Optimizes signal analyzers for every region
- Brand new: combo analyzers for DVB-S2 and T2 with fast spectrum display

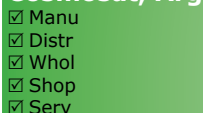
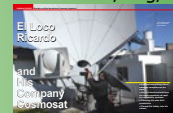
Tecsys, Brazil - Professional Equipment
www.TELE-audiovision.com/TELE-audiovision-1303/eng/tecsys.pdf

CEO
Jose Marcos
Freire Martins

COO
Jorge Alberto
Ganuza

Production
Adilson da
Silva


- Very good operational organization
- Concentration on professional satellite reception products

- In-house development department
- IRD is their success product

Cosmosat, Argentina - Satellite Dishes
www.TELE-audiovision.com/TELE-audiovision-1301/eng/cosmosat.pdf

Owner
Ricardo


- Learned everything about satellite reception on his own
- Installs head end stations for cable operators as well as community systems

- Planning his own dish production
- Turned his hobby into his career

Horizon, UK - Signal Analyzers
www.TELE-audiovision.com/TELE-audiovision-1301/eng/horizon.pdf

CEO
Paul
Pickering

Technical Director
Paul
Hardcastle

Technical Manager
Rob
Sydee


- Numerous new products for new DVB sectors
- Exports to every country as an OEM and under their own name
- Focusing expansion to emerging countries such as South Africa and in

- South America
- Specializes in easy to use analyzers for installers

Satson, Belgium - HDMI

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



CEO

Stefaan
Cornelis



Technical Manager

Didier
Debey

www.TELE-audiovision.com/TELE-audiovision-1301/eng/satson.pdf



- Conquers the new HDMI distribution niche with their specialized products
- Conceives their own HDMI products

- Distribution of HDTV signals in private homes with HDMI Extenders
- Compatible with coaxial cable as well as with Ethernet cables

Antiference, UK - Antenna and HDMI

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



MD

Trevor
Paintain



Sales

Arnold
Boeijen

www.TELE-audiovision.com/TELE-satellite-1211/eng/antiference.pdf



- Manufacturing TV antennas since 1937
- Provides all the components needed for TV reception
- Expanding into HDMI distribution, as well as wireless solutions

- Expanding distribution network to the European market
- Offers their own products as OEM and private label

USATel, Brazil - Distributor

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



MD

Jose Manuel
Pereira



CFO

Allam
Almughrabin

www.TELE-audiovision.com/TELE-satellite-1211/eng/usatel.pdf



- Imports all of its products from China
- Optimized assortment for digital TV needs in Brazil

- Sells and ships almost exclusively to end users
- Expanding into new business segments such as WLAN and IPTV

DMS International, USA - Distributor

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



CEO

Tim
Heinrichs



President

Vicky
Heinrichs

www.TELE-audiovision.com/TELE-satellite-1209/eng/dms-international.pdf



- Always working enthusiastically on new products
- Special focus on signal analyzers for the semi-professional
- Enormous growth of the international market outside of North America

- Innovative expansion of signal analyzer models for 2012

Topsignal, China - Satellite Dishes

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



Chairman

Zongbao
King



GM

Chaofeng
Ge



Sales

James
You

www.TELE-audiovision.com/TELE-satellite-1209/eng/topsignal.pdf



- OEM delivering exclusively to Wholesalers
- Specializes in large production quantities
- Produces millions of satellite dishes and LNBs

- Majority of shipments go to South America
- Expanding product palette to include high-quality LNBs and VSAT

DVBCN, China - Internet News and Job Forum

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



Owner

Anna
Xie



Chief Editor

Victor
Ho

www.TELE-audiovision.com/TELE-satellite-1207/eng/dvbcn.com.pdf



- Known by every digital TV company in China
- Provides all information regarding digital TV
- Expanding in the areas of recruitment and software development

- Focusing in future technologies such as OTT and IPTV
- Working on international expansion

SVEC, China - Satellite Dishes

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



CEO

Wang
Duo



Sales

Becky

www.TELE-audiovision.com/TELE-satellite-1207/eng/svec.pdf



- Large investment in Quality Assurance
- Expanding VSAT and Ka-Band production

- Opening a new fully automatic satellite dish production line
- Focusing on top-of-the-line Quality dishes

TSReader, USA - Analyzer Software

- ☑ Manu
- ☑ Distr
- ☑ Whol
- ☑ Shop
- ☑ Serv



Owner

Rod
Hewitt

www.TELE-audiovision.com/TELE-satellite-1207/eng/tsreader-rod-hewitt.pdf



- Wrote one of the most successful stream reader programs
- Developed a technical solution to archive TV channels for 'Internet Archive'

- Working on IPTV application programs
- Planning on a program for OCR recognition of BBC's EPG data



The Best Satellite and Digital TV Forum in Brasil



**PORTAL
BSD**

SATÉLITE · TV DIGITAL · IPTV · 3DTV

www.portalbsd.com.br



SPAUN
www.spaun.com Quality made in Germany

VAM 420 NG PAL

VSB Twin Modulator VAM 420 NG PAL

- Easy to create analog tv signals
- Adjacent channel capable
- Simple and fast programming
- Cascading allows for multiple TV analogue channels
- TV standard: B/G/D/K/I/L
- Frequency range: 110 ... 862 MHz
- Output level: max 90 dBμV
- C/N ratio: ≥ 50 dB

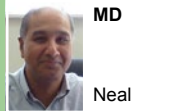


VAM 420 NG DVB-T
• Modulator with COFDM (DVB-T) output signal



Hypex, UK - Distributor

- Manu
- ☒ Distr
- Whol
- Shop
- Serv



MD

Neal

www.TELE-audiovision.com/TELE-satellite-1205/eng/hypex-icecrypt-uk.pdf



- Ships large dishes to Great Britain and Europe
- Offers successful product lines from ICECRYPT and GLOBALINVACOM

- Low prices thanks to minimal overhead costs
- Consistent sales despite pricing pressure

Ricks Satellite, USA - Distributor

- Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- Serv



Owner

Rick
Caylor



Owner

Rick
Caylor

www.TELE-audiovision.com/TELE-satellite-1205/eng/ricks-satellite-azbox.pdf

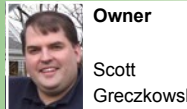


- celebrates its 10th anniversary in 2012
- distributes AZBox's receivers in North America

- is an enthusiastic satellite feedhunter
- sees a good future for the FTA market in North America

StelliteGuys, USA - Internet Forum

- Manu
- ☒ Distr
- Whol
- Shop
- ☒ Serv



Owner

Scott
Greczkowski

www.TELE-audiovision.com/TELE-satellite-1205/eng/satelliteguys.us.pdf

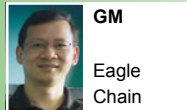


- Provides assistance with technical satellite reception questions
- Founded by Scott as a non-profit forum
- All advertising income is reinvested in better technology

- New is the use of the forums through Customer Service employees of digital TV companies

Sowell, China - IPTV Receivers

- ☒ Manu
- Distr
- Whol
- Shop
- Serv



GM

Eagle
Chain

www.TELE-audiovision.com/TELE-satellite-1205/eng/sowell-iptv.pdf

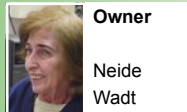


- Already operating the first IPTV project
- 3D planned for the future

- Integration of TV reception with IPTV
- 60% of all Sowell receivers are already HD

Wadt, Brazil - Headends

- ☒ Manu
- ☒ Distr
- ☒ Whol
- Shop
- Serv



Owner

Neide
Wadt



**Technical
Director**

Joao
Wadt

www.TELE-audiovision.com/TELE-satellite-1205/wadt-brazil.pdf



- Involved in HF for more than 60 years
- New allocation of cable licenses in Brazil opens up huge opportunities for the company

- Specialized products for cable headends
- Only ships domestically

Jiuzhou, China - Receivers

- ☒ Manu
- Distr
- Whol
- Shop
- Serv



**Vice
Marketing**

Jimmy
Zhang



Vice GM

Richard

www.TELE-audiovision.com/TELE-satellite-1203/jiuzhou-ott.pdf

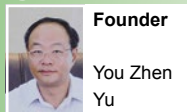


- Develops Digital TV receivers optimized for OTT
- Dedicated OTT development team

- Market for OTT in Europe and North America
- Upgrade of older digital receivers possible with a software upgrade

Panodic, China - Receivers

- ☒ Manu
- Distr
- Whol
- Shop
- Serv



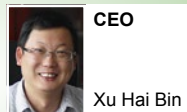
Founder

You Zhen
Yu



Founder

Huang
Wei



CEO

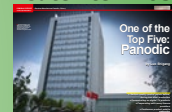
Xu Hai Bin



**Marketing
Manager**

Alan Yu

www.TELE-audiovision.com/TELE-satellite-1203/panodic.pdf

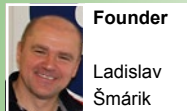


- Multiple quality control points before, during and after production
- Concentrating on digital TV products

- Cooperating with many license providers
- Continuous product palette expansion

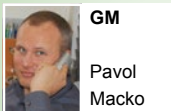
Sortec, Slovakia - Distributors

- Manu
- ☒ Distr
- ☒ Whol
- Shop
- Serv



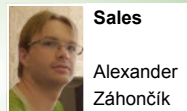
Founder

Ladislav
Šmárik



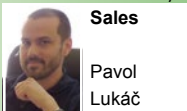
GM

Pavol
Macko



Sales

Alexander
Záhončík



Sales

Pavol
Lukáč

www.TELE-audiovision.com/TELE-satellite-1203/sortec.pdf



- One of the largest wholesalers in Slovakia
- Success through distribution of well-known, high-quality brand names

- Move to their own building in 2012
- Active in new technologies such as fiber optics and IPTV

Turbosat, UK - Receivers

- ☒ Manu
- ☒ Distr
- ☒ Whol
- Shop
- ☒ Serv



Sales

Chris
Ward



**Technical
Director**

Ray
Gargiulo

www.TELE-audiovision.com/TELE-satellite-1203/turbosat-icecrypt.pdf



- own receiver line ICECRYPT
- 50% of sales outside Great Britain
- Focus on receivers, CAM, SmartCards and LNBs

- 80,000 receivers a year
- produces Dolly Buster TV programming via HOTBIRD

SatelliteGuys.US

America's Satellite Information Source

Proudly Presents:

SATMAPS!

Where does the satellite signal go?
Find out at SATMAPS!

Real Satellite Beam Data for
North America direct from the FCC!

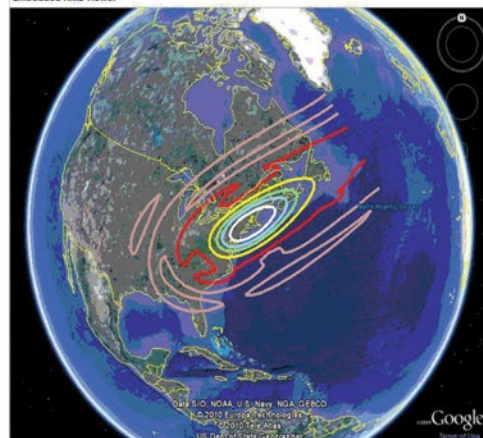
Find SATMAPS online at:
<http://satmaps.satelliteguys.us>

SatelliteGuys.US
America's Satellite Information Source

FCC Satellite Maps - Chrome, Firefox or Safari required to view and sort Spreadsheet. IE requires adding "https://www.google.com" to IE Trusted Sites.

Echostar 7 119W S13 New Haven

Embedded KML Viewer



SatelliteGuys.US hosts America's Largest & Most Popular Satellite Discussion Forum
We are America's Satellite Information Source!

SatelliteGuys.US is made possible by the PROUD support of the following Gold Sponsors:



<http://www.SatelliteGuys.US>



MOI



Sat TV Streaming Box

Watch satellite TV on PC, Tablet
PC, Smartphone, iPhone, iPad, iPod
and Sony Playstation 3

Stream Live TV to anywhere
there is home network

Enjoy and share a large quantity
of Movies, News, Live sports...

Two CI slots support premium/
encrypted channels



Dual Tuner supports streaming
two whole Transponder Stream
simultaneously

DLNA supported



MOI box is a dual DVB-S2 TV tuner and dual CI slot Linux server for
streaming satellite TV channels to the following client end devices within
your wired or wireless home network: HDTV, PC, tablet computers,
smartphones, iPhone, iPad, iPod and Sony Playstation 3. For more details,
please visit our website.

BSD, Brazil - Internet Forum

www.TELE-audiovision.com/TELE-satellite-1201/bsd.pdf



- Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Owner

Marcus
Bernardini

- Operates Brazil's largest digital TV website
- Engaged in the further education of digital TV antenna installers

- Planning his own IPTV channel all about digital technology
- Living his dream with his own worldwide radio station



P-Sat, Hungary - Distributor

www.TELE-audiovision.com/TELE-satellite-1201/p-sat.pdf

- Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Owner

Tibor
Posta

- Has its own customer magazine
- Created supermarket style store

- Planning start of own branded TV services
- Operates one of the most well-known web communities in Hungary



SatelliteAV, USA - Wholesaler

www.TELE-audiovision.com/TELE-satellite-1201/satelliteav.pdf

- Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



President

Brian
Gohl

- Optimized complete product assortment plus service
- Own receiver line for semi-professional applications
- First provider of OTA-SSU FTA receivers in the USA

- Offers the smallest LNB in the world
- Develops first Android hybrid satellite and IPTV receiver for North America



AB-COM, Slovakia - Receivers

www.TELE-audiovision.com/TELE-satellite-1111/abcom.pdf



- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Founder

Juraj
Masaryk



Marketing Manager

Michal
Grezo



Sales

Pavol
Blaho

- Particularly successful in Central Europe
- Products for different applications such as 3D and pay TV

- Focus on cost-efficient product range
- Products optimised for individual applications



Applied Instruments, USA - Signal Analyzers

www.TELE-audiovision.com/TELE-satellite-1111/appliedinstruments.pdf

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



GM

Tom
Haywood



Engineering

Jeff
Haas



Sales

Scott
Haywood

- The power of this company is its robust signal analyzers
- Company plans worldwide expansion with its internationally compatible analyzers

- Special test signal generators for receiver manufacturers
- Special attention to ergonomic operation
- Technical customer service an important highlight of the company



Huber+Suhner, Switzerland - Fibre Optics

www.TELE-audiovision.com/TELE-satellite-1111/huber+suhner.pdf

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



Product Manager

Patrick
Zaina



Marketing Manager

Othmar
Fuchs

- One of the leading fiber optic companies in the world
- New CLIK! System for easy installation
- New market segment that will make coaxial cable distribution systems

- obsolete
- Now available: economical alternative with distribution systems starting with eight users



iPONT, Hungary - 3DTV

www.TELE-audiovision.com/TELE-satellite-1109/ipont.pdf

- Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



CEO

Zoltan
Korcsok



CTO

Andor
Pasztor

- iPONT's software solution converts 3D for use with auto-stereoscopic monitors
- 3D enjoyment without annoying glasses
- Potential for receiver manufacturers to expand their STB's to include

- 3D
- Compatible with the variety of manufacturer auto-stereoscopic monitor solutions



Megasat, Germany - Receiver and Wholesaler

www.TELE-audiovision.com/TELE-satellite-1109/megasat.pdf

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☒ Serv



GM

Sven
Melzer

- 80% of distributed products come from in-house MEGASAT brand
- full range of satellite components

- special focus on self-aligning camping antennas
- distribution to the whole of Europe



Sapro, Czech - Receiver and Wholesaler
www.TELE-audiovision.com/TELE-satellite-1109/sapro.pdf

- ☑ Manu
- ☑ Distr
- ☑ Whol
- Shop
- Serv


Owner

 Lubomír
Proboszcz

Sales

 Petr
Zwrtek

Sales

 Jana
Proboszczová

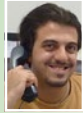

- Covers every price segment with its four brand names
- Starting expansion to surrounding countries

- In-house design and production (assembly line)
- Produces 100,000 receivers per year

WSInternational, USA - Receiver and Wholesaler
www.TELE-audiovision.com/TELE-satellite-1109/wsinternational.pdf

- ☑ Manu
- ☑ Distr
- ☑ Whol
- Shop
- Serv


Owner

 Robby
Dosetareh

Sales

 Joseph
Bassala


- Successful Young Company with Ambition
- Manufacturer of Satellite Components

- Plan for Worldwide Expansion with Satellite Signal Analyzers
- Inexpensive Products Thanks to Efficient Production and Distribution

BYA, Algeria - Dishes and Receiver
www.TELE-audiovision.com/TELE-satellite-1107/bya.pdf

- ☑ Manu
- ☑ Distr
- Whol
- Shop
- Serv


GM

 Slimane
Ait Yala

Boingsat, China - LNB
www.TELE-audiovision.com/TELE-satellite-1105/boingsat.pdf

- ☑ Manu
- Distr
- Whol
- Shop
- Serv


GM

 Haowen
Chiang

Co-Owner

 Yunnjye
Qin

Sales

 Jason
Chiang


- Three Production Locations in Zhuhai/ China
- Large Sales Expansion in South America

- In the Works: LNB with Two Feed Rings

Bomare, Algeria - Receiver
www.TELE-audiovision.com/TELE-satellite-1105/bomare.pdf

- ☑ Manu
- Distr
- Whol
- Shop
- Serv


**Technical
Manager**

 Tewfik
Lamrani

Prevail, China - Fibre Optics and CATV
www.TELE-audiovision.com/TELE-satellite-1105/prevail.pdf

- ☑ Manu
- Distr
- Whol
- Shop
- Serv


Sales

Necy-xu


Sales

Helen


**Production
Manager**

 Ren
Guorui


- Substantially Increased Sales for 2011 Thanks to Rising Exports
- Additional Factory Soon to be in Operation
- Increased Number of Employees

- Four New SMT Machines in Operation
- Very Active R&D Team

Jiuzhou, China - IPTV Boxes
www.TELE-audiovision.com/TELE-satellite-1103/jiuzhou.pdf

- ☑ Manu
- Distr
- Whol
- Shop
- Serv


Sales

 Huang
Wei

**Vice
Marketing**

 Jimmy
Zhang


- IPTV box production may reach 1 million units in 2011
- Jiuzhou starts HbbTV boxes for Europe

- Big retailers about to launch into IPTV box sales
- Jiuzhou to attend all major exhibitions in 2011, 10 in all

Sowell, China - Receivers
www.TELE-audiovision.com/TELE-satellite-1103/sowell.pdf

- ☑ Manu
- Distr
- Whol
- Shop
- ☑ Serv


GM

 Eagle
Chain

Software

 Sun
Guanghua

Software

 Peng
Yi


- Founded by 5 Partners
- ISDB-T and DVB-T2 Receiver in 2011

- Overseas Offices in the Plan
- User Friendliness is Company Philosophy

Tenow, China - PC Cards
www.TELE-audiovision.com/TELE-satellite-1103/tenow.pdf

- ☑ Manu
- ☑ Distr
- Whol
- Shop
- Serv


Founder

 Richard
Zhang

Founder

 Bob
Liu

Founder

 Eric
Deng

Founder

 James
Liu

NetUP, Russia - IPTV
www.TELE-audiovision.com/TELE-satellite-1101/netup.pdf

- ☑ Manu
- ☑ Distr
- Whol
- Shop
- ☑ Serv


Co-Founder

 Abylay
Ospan

Co-Founder

 Evgeniy
Makeev

Sales

 Konstantin
Emelyanov


Tevii, Taiwan - PC Cards and Receiver

www.TELE-audiovision.com/TELE-satellite-1101/tevii.pdf

- ✓ Manu
- ✓ Distr
- Whol
- Shop
- Serv



Founder
Matthias
Liu



Satbeams, Belgium - Software

www.TELE-audiovision.com/TELE-satellite-1011/satbeams.pdf

- ✓ Manu
- ✓ Distr
- Whol
- Shop
- ✓ Serv



Founder
Alexander
Derjugin



SmartWi, Denmark - Wireless Card Reader

www.TELE-audiovision.com/TELE-satellite-1011/smartwi.pdf

- ✓ Manu
- ✓ Distr
- ✓ Whol
- Shop
- Serv



Founder
Kurt
Olesen



Technical Manager
Jens
Glad



Spaun, Germany - Power Supplies

www.TELE-audiovision.com/TELE-satellite-1011/spaun.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



IBC
Certificate
Holder



MD
Kevin
Spaun



Boxsam, China - Receivers

www.TELE-audiovision.com/TELE-satellite-1009/boxsam.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



GM
Xiaofeng
Huang



VP
Jeffrey
Zhao



Atlanta, Dubai - Wholesaler

www.TELE-audiovision.com/TELE-satellite-1007/atlanta.pdf

- Manu
- Distr
- ✓ Whol
- Shop
- Serv



Founder
Rajmal
Jain



Director
Sanjeev
Jain



Yinhe, China - Receiver

www.TELE-audiovision.com/TELE-satellite-1007/yinhe.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



Marketing Manager
Jianbiao
Zhu



GlobalInvacom, UK - Fibre Optics

www.TELE-audiovision.com/TELE-satellite-1005/globalinvacom.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



Sales
Ivan
Horrocks



Sales
David
Fugeman



Changhong, China - Receiver

www.TELE-audiovision.com/TELE-satellite-1003/changhong.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



Sales
Richard
Cheng Li



Kaifa, China - Receivers

www.TELE-audiovision.com/TELE-satellite-1003/kaifa.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



Marketing Manager
Jackie
Yan



Skyworth, China - Receivers

www.TELE-audiovision.com/TELE-satellite-1003/skyworth.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



Vice GM
David
Ken



Technical Manager
Jack
Zhang



Promax, Spain - Signal Analyzers

www.TELE-audiovision.com/TELE-satellite-0909/promax.pdf

- ✓ Manu
- Distr
- Whol
- Shop
- Serv



Founder
José
Clotet



GM
José-Maria
Clotet



Infosat, Thailand - Dishes
www.TELE-audiovision.com/TELE-satellite-0907/infosat.pdf

- ☒ Manu
- ☐ Distr
- ☐ Whol
- ☐ Shop
- ☐ Serv



Founder
Niran
Tangpiroontham


Aluosat, China - Wholesaler
www.TELE-audiovision.com/TELE-satellite-0905/aluosat.pdf

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☒ Shop
- ☐ Serv



Founder
Luo
Shigang



Sales
Luo
Jun


MFC, USA - Filters
www.TELE-audiovision.com/TELE-satellite-0903/mfc.pdf

- ☒ Manu
- ☒ Distr
- ☐ Whol
- ☐ Shop
- ☐ Serv



CEO
Carl
Fahrenkrug



Sales
Scott
Parsell



Marketing Manager
Sandy
Nelepovitz


Nanoxx, Germany - Wholesaler and Receivers
www.TELE-audiovision.com/TELE-satellite-0901/nanoxx.pdf

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☐ Shop
- ☐ Serv



Founder
Marcel
Hofbauer



Sales
Daniel
Sam


Smart, Germany - Receivers
www.TELE-audiovision.com/TELE-satellite-0901/smart.pdf

- ☒ Manu
- ☒ Distr
- ☒ Whol
- ☐ Shop
- ☐ Serv



MD
Peter
Löble



MD
Christoph
Hoefler


Spaun, Germany - Accessories
www.TELE-audiovision.com/TELE-satellite-0811/spaun.pdf

- ☒ Manu
- ☒ Distr
- ☐ Whol
- ☐ Shop
- ☐ Serv



IBC
Certificate
Holder



Founder
Friedrich
Spaun



MD
Kevin
Spaun



Technical Manager
Steffen
Kuck


Stab, Italy - Motors
www.TELE-audiovision.com/TELE-satellite-0809/stab.pdf

- ☒ Manu
- ☐ Distr
- ☐ Whol
- ☐ Shop
- ☐ Serv



Founder
Giorgio
Bergamini


Subur Semesta, Indonesia - Dishes
www.TELE-audiovision.com/TELE-satellite-0805/subursemesta.pdf

- ☒ Manu
- ☐ Distr
- ☐ Whol
- ☐ Shop
- ☐ Serv



MD
Tjia
Tek Ijoe



Finance
Liong
Ten Fook



Technical
Thiang
Tiong An


Dishpointer, UK - Software
www.TELE-audiovision.com/TELE-satellite-0803/dishpointer.pdf

- ☒ Manu
- ☒ Distr
- ☐ Whol
- ☐ Shop
- ☒ Serv



Owner
Alan



Flavio Pairol, Brazil

- *discovered all by himself how to receive circular signals*
- *designed a 2-axis tracking system for reception of inclined signals*
- *watched satellite TV for the first time in 1984*
- *receives Russian TV channels with his 3-meter antenna*
- *devised multi-LNB feeds for different bands and polarisations*



■ Hardly visible from the road: Flavio Pairol's 3-meter satellite antenna in São José dos Campos, province of São Paulo, Brazil.



After ten years in the making, a dream has (almost) come true

■ Flavio Pairol loves to watch Russian channels. He can receive EXPRESS AM44 at 11° W with his satellite antenna. Russia 1 and Planeta RTR are transmitted from that position.



Flavio Pairol had his first encounter with satellite reception back in 1984 in Mexico. "At the time I was employed by large multi-national corporation Philips which was in the process of setting up a production plant for TV sets. Some members of staff in charge of the construction project were from the United

States and in order to watch US channels in Mexico they set up large satellite dishes in their housing areas." This is when Flavio Pairol caught his first glimpse of channels such as CNN and Playboy via satellite. For him, one thing was for sure: "I want to watch that at home, too!"

Nonetheless, Flavio Pairol had to test

his patience until he was able to buy his first mesh antenna in 1993: "I remember that it set me back 100 US dollars, but at least that amount also bought me an LNB and a receiver." With this equipment he was able to receive channels broadcast from the recently launched BRASIL-SAT – which, unfortunately, did not carry



Ft@TV
El foro de la TV libre

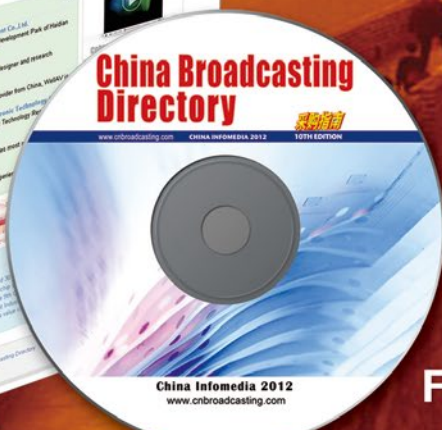
Welcome to FT @ TV Forum, the forum free Argentine TV. In this forum we discuss FTA only. We do not support any brand of receivers. If the receiver only opens five channels at 61° W, it is normal because they are the only ones that are FTA on the satellite Amazonas.



Hi guest, if you read this, it means you are not registered. Click here to Register, so you can enjoy all the features of our forum. Once registered we invite you to walk through our Presentations section to let you know in our community. A greeting from the staff of Ft @ TV ...



www.ftatv.com.ar



Hit or Miss ?
You need a guide - China Broadcasting Directory to hit the target !

For free Directory **ONLINE**

www.cnbroadcasting.com



CNN or the Playboy channel. BRASILSAT transmitted signals with linear polarisation, but in 1995 Flavio Pairol observed that some satellites also provide circular signals. Not one to run away from a challenge he wanted to receive those signals as well and began to experiment.

One day he accidentally held a screwdriver right in front of the feed in a precisely upright position when all of a sudden the extremely weak signal of a circular channel turned into a perfect picture. Flavio Pairol had discovered how to receive circular signals. "Rather than using the usual teflon disc – like everybody else – a piece of metal in perpendicular position to the feed worked just as well."

One of the most circular-happy satellites was EXPRESS from Russia, and since Flavio Pairol had got the knack of it Russian emigrants all over the place heard through the grapevine that there was a fellow around who would be able to bring Russian TV into their Brazilian living rooms. "I began to offer suitable LNBs for this group of people and, if required, I even took care of installation."

By 2003 EXPRESS 14°W was wobbling to an extent that reception with standard antennas had become all but impossible. "So I went about constructing a two-axis control mechanism using two actuators. This way it was possible to follow all wobbles of the satellite." At first it was necessary to readjust the dish manually, but Flavio Pairol eventually equipped his invention with a fully automatic control system. "I imported those controls from the USA." At the time you had to invest around 2000 US dollars for such state-of-the-art equipment. Naturally, most people could not afford to spend that amount of money. "In 2006 all this came to an end anyway, since the EXPRESS satellite was not used any longer."

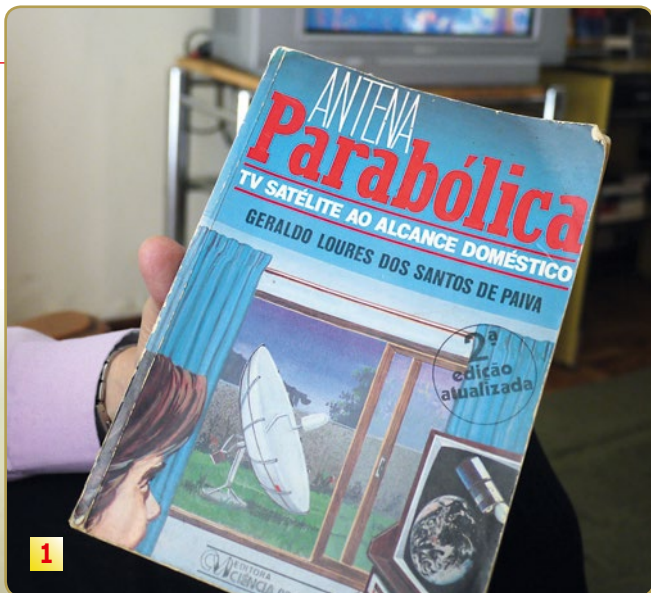
What followed then was the Internet, and with it the whole world at your fingertips, so to speak. The fascination of receiving satellite channels from far-away countries gave way to the possibility of receiving TV from around the globe via IPTV. "Admittedly, I've always wanted to receive CNN and the Playboy channel, but to be honest, I hardly ever watched them."

After all his experiments with Russian satellite channels Flavio Pairol had become an avid follower of Russian TV. "I remember the time of the Cold War, and it never ceases to amaze me that today I can watch channels from a country that was considered the communist enemy of the western world for so many years. Back in that time, Russia seemed cordoned off from the outside world." Flavio Pairol frequently watches repeats of pro-





■ Flavio's second dish is a 2.6-meter mesh antenna, which currently also points towards EXPRESS at 11° W.



1

1. Flavio Pairol learned the ins and outs of satellite reception from this book.

2. Receivers used by Flavio Pairol.

3. Is this a DVD? Not really, it's a Video Laser Disc. Philips launched this system in 1978 and Flavio must be one of only a few still owning such a device, plus a large selection of laser discs. "It still works beautifully," Flavio Pairol confirms. And not without pride, since he was employed by Philips all his working life.



2



3



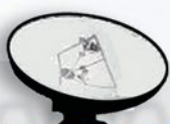
Look at India!



Satellite Signal Reception Discussion Forum for Indian DTH Services, C Band and Ku Band Reception



Dish
Tuning



www.dishtuning.com



A fresh look at the familiar
SATBEAMS

Everything you need
to set your dish right



Satellite charts with filters

View TP and channels info as you wish

**EMBED SCALABLE
FOOTPRINTS INTO
YOUR WEBSITE**

Transponder news updated daily

Get only the updates you need with filtered RSS

WWW.SATBEAMS.COM

Interested to contribute your DX reports?
Send your updates to autoscan@satbeams.com



4



5



6



7



8

grams produced during the Soviet Union era. "To me this feels like a journey back in time, to a world that fascinated me even back then."

While his 3-meter dish can theoretically be moved to any receivable position, it is generally aligned towards EXPRESS AM44 at 11° West. It is from this orbital spot that he receives Russia 1 and Planeta RTR. "True, I don't speak Russian, but I still enjoy those channels, above all newscasts and music shows."

So Flavio Pairol has made his personal dream come true, even though not with the US channels he originally wanted to receive, but with TV channels from Russia. Who's to say dreams cannot change?



9



10

4. Flavio Pairol re-enacts how he accidentally discovered a trick for receiving circular signals. He was adjusting the feed and by chance placed a screwdriver vertically in front of the feed – all of a sudden he obtained a clear signal.

5. He then reasoned that a metal bar or rod must have the same effect as his screwdriver and thus invented his own solution for receiving circular signals.

6. Using this construction with two actuators, Flavio was able to receive signals from the inclined EXPRESS 14°W. He could even make money with this invention by selling such systems to emigrants from Russia in Brazil.

7. Sometimes it doesn't take a lot to achieve a lot: Flavio discovered that a slightly longer feed horn can improve reception by about 2 dB.

8. Flavio designed a multi-LNB feed for a C band LNB for circular polarisation, and one for linear polarisation and the Ku band. The feeds are arranged precisely along the orbital axis, so that whenever the antenna is rotated, the LNBs always point right to the respective satellites.

9. Flavio came up with a similar multi-LNB feed for circular and linear Ku band LNBs and a linear C band LNB – as seen here on his 2.6-meter antenna.

10. The same multi-LNB feed with closed weather protection.



MOST FAMOUS Satellite and TVRO Enthusiasts **WORLDWIDE**



Flavio Pairol

Brazil

Sao Jose dos Campos, Brazil



www.tavmag.com/TELE-audiovision-1401/eng/dxer-flaviopairol.pdf

FTA fan

USA

Michael Kilgore, Denver, USA



www.tavmag.com/TELE-audiovision-1303/eng/dxer-michael.pdf

Siddharth Gautam

India

Bangalore, India



www.tavmag.com/TELE-audiovision-1311/eng/dxer-siddharth.pdf

Henry

Malawi

Henry Kapitapita, Zomba, Malawi



www.tavmag.com/TELE-audiovision-1301/eng/dxer-henry.pdf

Lasmotos

Argentina

Daniel Hasink, Buenos Aires, Argentina



www.tavmag.com/TELE-audiovision-1305/eng/dxer-lasmotos.pdf

Natalino

Brazil

Natalino, Jundiai, Brazil



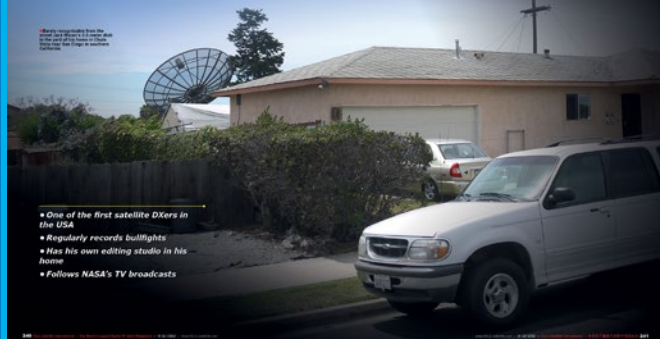
www.tavmag.com/TELE-satellite-1211/eng/natalino.pdf

Jack

Jack Moran, San Diego, USA

USA

Satellite DXer for 35 Years



- One of the first satellite DXers in the USA
- Regularly records bullights
- Has his own editing studio in his home
- Follows NASA's TV broadcasts

www.tavmag.com/TELE-satellite-1211/eng/dxerjackmoran.pdf

DX-Ralf

Ralf Sunke, Emlichheim, Germany

Germany

"My Motto: Find TV, Not Watch TV"



- Receives more than 4000 TV channels from 42 satellite positions
- Collects feed horns and LNBs
- Learned everything on his own
- Proved with the construction of a milk carton dish that simple solutions are also possible

www.tavmag.com/TELE-satellite-1207/eng/dx-ralf.pdf

Oscar

Oscar Campos, Santiago, Chile

Chile

Oscar's Satellite Station



- Receives the entire world with his seven Ku-band dishes and one C-band antenna
- As a former uplink station employee, he knows his way around satellite TV
- His dishes are his muscops
- Always comes home from trips with satellite components

www.tavmag.com/TELE-satellite-1209/eng/oscar.pdf

SatGuy

Scott Greczkowski, Newington, CT, USA

USA

Scott's SatelliteGuys



- Provides assistance with technical satellite reception questions
- Founded by Scott as a non-profit forum
- All advertising income is reinvested in better technology
- Now is the use of the forums through Customer Service employees of digital TV companies

www.tavmag.com/TELE-satellite-1205/eng/satelliteguys.us.pdf

Big Ronaldo

Ronaldo Zovaro, Louveira, Brazil

Brazil

The Big Ronaldo



- Expanded his hobby into two successful companies
- Offers wireless Internet in the 2.4 and 5.8 MHz ranges
- Satellite DXing at a very low elevation
- Enthusiasm for technology led to his hobby and his profession

www.tavmag.com/TELE-satellite-1207/eng/bigronaldo.pdf

Györgi

Györgi (George), Budapest

Hungary

Live your Dream!



- Receives every satellite that can possibly be received
- Acquired almost all of his 50 dishes in used condition
- Interested in the various dish reception technologies
- Able to fabricate missing components

www.tavmag.com/TELE-satellite-1203/eng/dxerbudapest.pdf

Benni

Marcos Eduardo Bernardini, Jundiaí (SP)

Brazil



www.tavmag.com/TELE-satellite-1201/eng/bsd.pdf

DXer

Daryoush, Mehdi, Saeed, Davood, Milad

Iran



www.tavmag.com/TELE-satellite-1107/eng/dishes-in-iran.pdf

DX Bozoth

Laszlo Toth, Püspökladány

Hungary



www.tavmag.com/TELE-satellite-1111/eng/dx-bozoth.pdf

Jang Lee

Jang Lee, Gangwon

Korea



www.tavmag.com/TELE-satellite-1105/eng/korea.pdf

Ken Wong

Ken Wong, Hongkong

Hongkong

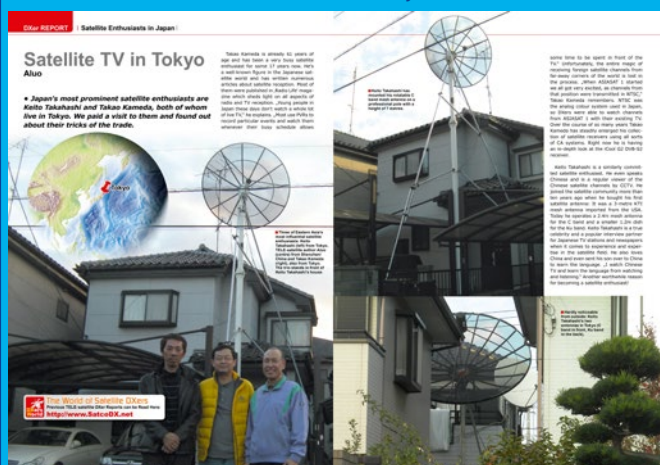


www.tavmag.com/TELE-satellite-1111/eng/dxerhongkong.pdf

Keito, Takao

Keito Takahashi and Takao Kameda, Tokyo

Japan



www.tavmag.com/TELE-satellite-1103/eng/japan-dxer.pdf

Ponny Germany

Rainer Schulz and Berndt Rosenberger, Tröbitz



www.tavmag.com/TELE-satellite-1101/eng/ponny.pdf

Siddharth India

Siddharth Gautam, New Delhi



www.tavmag.com/TELE-satellite-1007/eng/india.pdf

Pepsi China

Pepsi, Mengyang, Sichuan, China



www.tavmag.com/TELE-satellite-1011/eng/pepsi.pdf

Astra Fan Turkey

Cahit Nuri Or, Adapazari



www.tavmag.com/TELE-satellite-1005/eng/astrainturkey.pdf

Jiri Czech

Jiri Vanek, Jablonec nad Nisou



www.tavmag.com/TELE-satellite-1009/eng/jiri.pdf

Satheesan India

Satheesan Puzhakkara, Thiruvananthapuram



www.tavmag.com/TELE-satellite-1003/eng/indiadxer.pdf

Hakan

Hakan Kasli, Antalya



www.tavmag.com/TELE-satellite-1001/eng/dxerinturkey.pdf

Stone

ShiToy, Beijing



www.tavmag.com/TELE-satellite-0909/eng/beijingdxer.pdf

Yahya

Yahya, Saudi Arabia



www.tavmag.com/TELE-satellite-0911/eng/yahya.pdf

Roy

Roy Carman, London



www.tavmag.com/TELE-satellite-0909/eng/londondxer.pdf

Vincent

Vincent, Jakarta



www.tavmag.com/TELE-satellite-0909/eng/indonesia.pdf

Applesat

Applesat, Beijing



www.tavmag.com/TELE-satellite-0907/eng/applesat.pdf



Compact Headend 8/16 x DVB-S(2) into QAM BluBox 8 and BluBox 16

- 8 / 16 x DVB-S(2) (QPSK/8PSK) into DVB-C (QAM)
- For the reception of 60/120 TV programs SD/HD and 30/60 Radio programs
- Compact dimensions and high energy efficiency
- LNB control with 14/18 V + 22 kHz or DiSEqC
- Configuration via LAN/IP
- Complete processing of the transport streams possible
- All 8 / 16 output channels can be placed individually in the spectrum
- Two individual input ports



SPAUN electronic GmbH & Co. KG · Byk-Gulden-Str. 22 · 78224 Singen
Tel.: +49 (0) 7731-8673-0 · Fax: +49 (0) 7731-8673-17
Email: contact@spaun.com · www.spaun.com

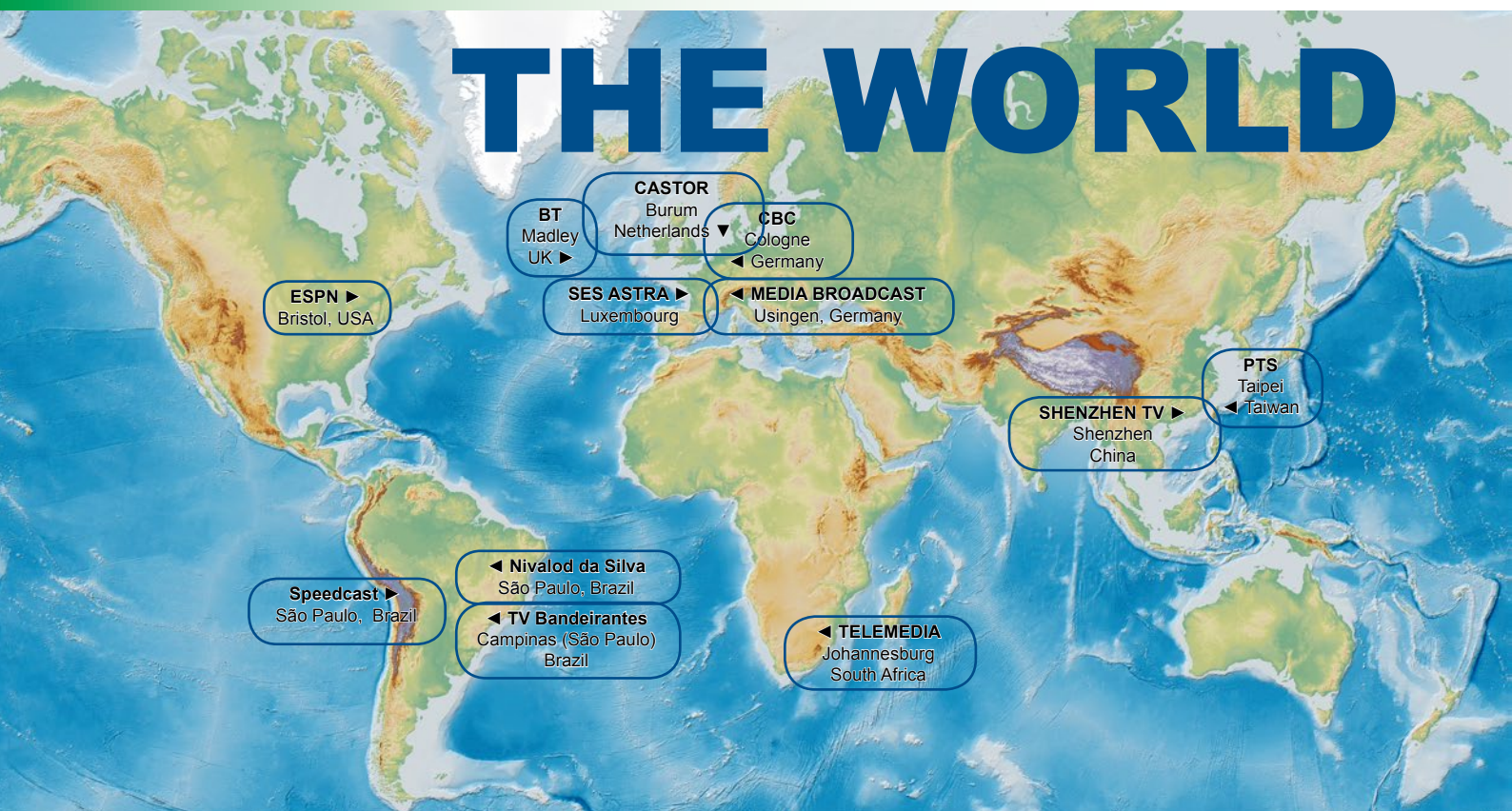
The best source of information for TVRO fans in China



www.ASIATVRO.com

BEST SATELLITE UPLINK

EARTH STATIONS IN THE WORLD



Speedcast Sao Paulo Brazil

Read Full Report



[www.tavmag.com
/13/09/speedcast](http://www.tavmag.com/13/09/speedcast)

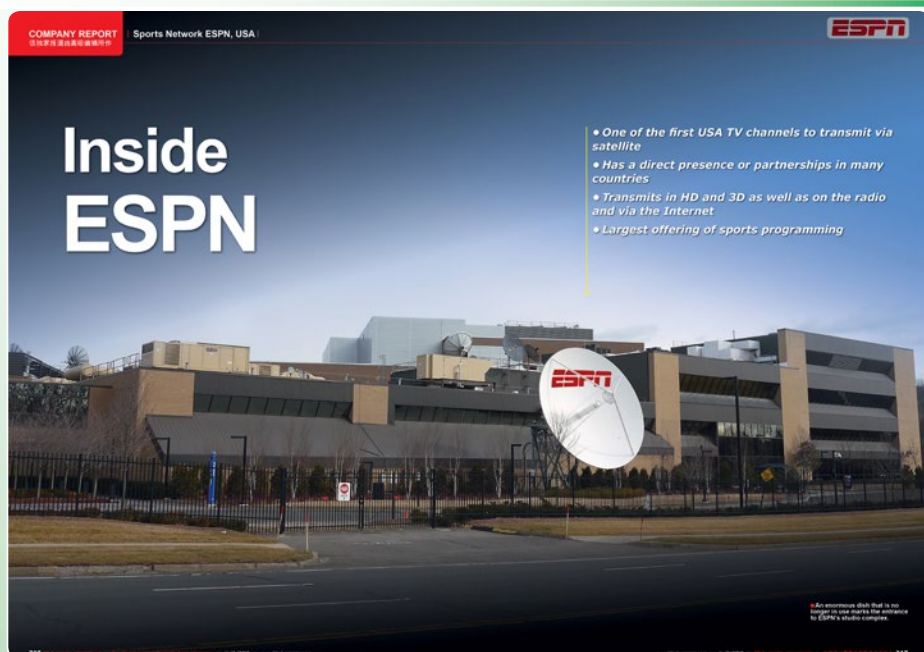


ESPN Bristol USA

Read Full Report



[www.tavmag.com
/12/11/espn](http://www.tavmag.com/12/11/espn)



Nivaldo da Silva São Paulo Brazil

Read Full Report



[www.tavmag.com
/12/09/nivaldodasilva](http://www.tavmag.com/12/09/nivaldodasilva)



TV Bandeirantes São Paulo Brazil

Read Full Report



[www.tavmag.com
/12/07/tvbandeirantes](http://www.tavmag.com/12/07/tvbandeirantes)

COMPANY REPORT TV Station TV Bandeirantes, Campinas, SP, Brazil

Satellite Dishes at TV Bandeirantes

• The most modern reception and transmission technology in Brazil
• Receives and transmits in HD
• Receives the main program via satellite
• A specialty is the combination of analog and digital channels

ANALÓGICA HD-TV ANALÓGICA

Shenzhen TV Shenzhen China

Read Full Report



[www.tavmag.com
/12/05/shenzhen-tv](http://www.tavmag.com/12/05/shenzhen-tv)

COMPANY REPORT Ground Station Shenzhen TV, China

Satellite Uplink directly from Shenzhen

• uses 6 uplink dishes for SNG
• will start its own programming Uplink soon
• prepared for further expansion
• all important devices installed two times for instant backup

Castor Burum Netherlands

Read Full Report



[www.tavmag.com
/12/03/castor](http://www.tavmag.com/12/03/castor)

COMPANY REPORT Satellite Uplink Station, Netherlands

CASTOR: More than an Uplink Station

• Internet and TV uplink for cruise ships
• Data services for specific user groups
• Uplink for many Dutch radio channels
• Downlink/encoding for IPTV providers
• Free capacity for additional uplink customers

CBC Cologne Germany

Read Full Report



www.tavmag.com/12/01/cbc

COMPANY REPORT Uplink Provider

Zero Tape – Full HD

all programming content stored as files
 • huge file-based electronic archive
 • global content distribution
 • production and international playout of live coverage of German Bundesliga soccer matches
 • fully equipped for HDTV

This is what A & E is up to: the new HD uplink facility for the German soccer matches in the new Cologne Broadcasting Centre.

112 TELE-audiovision 12/01/2012 113

BT Madley UK

Read Full Report



www.tavmag.com/11/11/bt

COMPANY REPORT BT Madley International Communications Centre, UK

Partner for the Big Players

Alexander Wiese

- Operates 65 dishes in southwestern Great Britain
- Recently began offering uplink services for programming providers
- Equipped for HD and 3D program processing
- International optical links in all directions
- Highly motivated technical specialists

In 1986, BT Madley was established in Madley, UK. It has since become a leading provider of satellite uplink services for the UK and international markets. The facility is equipped with 65 dishes and is capable of handling HD and 3D program processing. It also offers international optical links in all directions and has a highly motivated technical staff.

112 TELE-audiovision 11/11/2011 113

SES ASTRA Luxembourg

Read Full Report



www.tavmag.com/11/09/ses

COMPANY REPORT Satellite Provider

SES ASTRA Spreading its Wings

- 34 million euro invested
- SES with shareholding in world-wide Internet-via-satellite MEO system
- 44 satellites around the world
- extremely low error tolerance makes for equally low failure rate
- remote monitoring of all SES ASTRA satellites via company-run reception stations

112 TELE-audiovision 11/09/2011 113

Media Broadcast Usingen Germany

Read Full Report



www.tavmag.com
/10/09/mediabroadcast

**Telemedia
Johannesburg
South Africa**

Read Full Report



www.tavmag.com
/07/09/telemedia

**PTS
Taipei
Taiwan**

Read Full Report



www.tavmag.com
/07/07/pts

STATION REPORT | Earth Station Usingen, Germany

Satellite Reception with a 19 Metre Dish

30 Years of Satellite Reception and Uplink in Usingen near Frankfurt

In an age of ever decreasing antenna sizes and only very few satellite DXers using large dishes it's a welcome change to explore really huge antennas close-up. These can only be found in professional settings, of course, and in particular where TV channels are beamed up to a satellite: at satellite earth stations. One of Europe's top 3 stations is located close to the small town of Usingen, not far from Frankfurt in Germany.



Company Report

**Telemedia,
Johannesburg**

WIN Optimizes for the Future — In Peter Rabinovich's words, his operates on station in Johannesburg, South Africa under not exactly ideal conditions. Peter originally came to South Africa in 1974 to work for the South African Broadcasting Corporation, the move to this region, which he found better than South Africa's "stagnant television," he says. He was hired to work for the SABC's first color TV station, which was a 100% type-A and 100% high-definition SDR. His first contract was for 18 months. Rabinovich on the diamond roads of Botswana, followed by several contracts for the establishment of the SABC's television stations in Botswana, Lesotho, and Swaziland. He was in Botswana from 1981 to 1987. In 1987 he moved into a new building in Botswana, a suburb of Johannesburg. He says that he was the first person to have a television set in his office. He then heeded the microcure line for the channels groups for the then HASAT and EABC.

In 1984 he was finally hired: South Africa's Telecom signed him on for the first station in Johannesburg. He says that he was "We were using a Philips TVRO antenna system. It was a 100% type-A and 100% high-definition SDR. He recalled the first satellite signal. "It was the Italian 704 satellite at 60° east."



STATION REPORT | PTS Taipei, Taiwan

Satellite Channels for Taiwan - PTS's Control Center



DishPointer AR

See where to point your dish, live on the iPhone screen!

The revolutionary DishPointer Augmented Reality app is now available on the app store. Just point your iPhone anywhere towards the sky and see all the satellites lined up on the live video screen.

See the Video

See DishPointer AR in action on YouTube!

DishPointer is the world's No.1 satellite dish pointing site, offering custom built tools for mobile devices or websites to businesses. For more information, visit www.dishpointer.com.

This app uses the iPhones GPS, motion sensor and compass to calculate all the satellite positions and overlays them on the camera. At a glance you will see where to point the dish and any obstacles blocking the line of sight.



References



www.dishpointer.com
info@dishpointer.com

STB Manufacturers in China and Korea!

Are you interested to
import to
South America?

- **BSD** helps you to find the best distributors and dealers for your products
- **BSD** is active in the digital tv trade since 2003



We maintain personal contacts to all major players in tv systems in **South America**

Contact: E-mail: import@bsdcom.com.br

TELE-audiovision

These Companies Started Their International

DX "COMMUNICATION ELITE"

DXANTENNA
1987

12GHz Band
Block-down Converter (LNB)
Model DSA-516

SUPERDISH
Reflex Parabolic Antenna
Model DSA-412E

OMT
(Ortho Mode Transducer)
Model DSA-210

FULL FREQUENCY
TUNABLE

Satellite Receiver
Model DSA-680

Feed Horn
Model DSA-207

Satellite U/V
Mixing Adapter for TV Out Plug
(Accessory for the DSA-680)

Manufacturer: **DX ANTENNA CO. LTD. JAPAN**

DISTRIBUTED BY: **A. NEVELING** Postfach 30 07 03 Tlx: 85 84 225
4000 Düsseldorf 30 Tel: 02 11 / 42 82 18

ASTRA
1987

ASTRA
DER EUROPÄISCHE FERNSEHSATELLIT MIT 16 KANÄLEN

Der techno-logische Vorsprung

START HERBST 1988

**QUALITÄT OHNE
KOMPRO**

MASPRO
1988

Preis, Qualität und fortschrittliche Technik sind die wesentlichen Anforderungen, die Sie als kritischer Konsument an Ihre Satelliten-Empfangsanlage stellen sollten.

MASPRO
SATELLITE SYSTEM

C. Itok Communications GmbH, Cantadorstraße 3, 4000 Düsseldorf 1

(Sharp Satellite-Systeme)

All in One-LNB welcomes SHARP
ECS, DBS and TEL
1989

3 in 1: Der neue Breitband-Konverter RSC-W 85 900 von Sharp empfängt alle drei Satellitensysteme - ECS, DBS und TELCOM. Das Umschalten auf die entsprechenden Frequenzen von 80-95 GHz bis 12,75 GHz erfolgt über die Fernbedienung.

3 in 1 Triple LNB	BAND 80-95 GHz / DBS	12,75 GHz / TELCOM	type/max LNB	Noise fig. (dB) typ/max 10/20
3 in 1	ECS + TELCOM	DBS + TELCOM	DBS + ECS	2,0 - 2,0
DUAL LNB	RSCD 86400 RSCD 86400 RSCD 86700 RSCD 86800	RSCD 87000 RSCD 87400 RSCD 87700 RSCD 87800	RSCD 85900 RSCD 85900 RSCD 85700 RSCD 85700	4,6 - 1,8 1,7 - 1,7 1,5 - 1,6 1,6 - 1,6
1 in 1	ECS	DBS	TELCOM	Noise fig. (dB)
SINGLE LNB	RSCA 86400 RSCA 86400 RSCA 86700	RSCA 85400 RSCA 85400 RSCA 85700	RSCA 87400 RSCA 87400 RSCA 87700	1,3 max 1,3 max 1,7 max
DBS Tuner	Small Size Single Input Dual Input	DB-Scaler 1/28, 1/256, without Bandwidth 20 MHz, 27 MHz, 27/16 MHz; FM Threshold type 4 dB noise Input frequency 950 - 1750 MHz		
RF Module	Small Size	UK / Germany PAL I / PAL G Test Signal Generator		

SHARP

SHARP ELECTRONICS (EUROPE) GmbH, Alte M323, Sonnenstr. 3, 2000 Hamburg 1, Tel. 0 40 / 23 77 52 56, Telex 210 067, Telefax 0 40 / 23 77 52 82

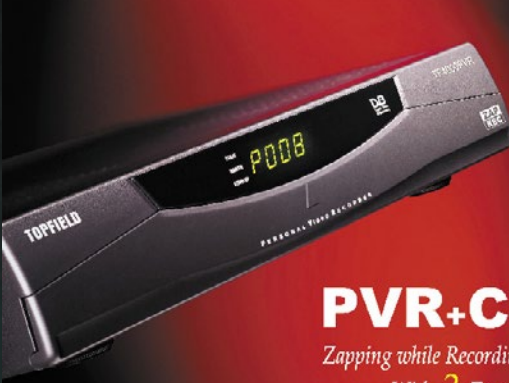
Made Them Big!

Success with TELE-audiovision Magazine

D.I.G. | T.A.L.
EXPERTS GROUP

Yes!
TOPFIELD
Your Confidence to the

2001



PVR+CI
Zapping while Recording
With 2 Tuners

Now : PVR + CI + Embedded Conax model available!

• TF3000CI • TF3000CIP • TF3000F • TF3100FE • TF3100FEP • TF4000PVR

ZAP REC **TOPFIELD**
www.topfield.co.kr

Address: 4th floor, Daehyun Bldg. 200-1 Bundang-Rd, Seongnam-City, Gyeonggi-Do, Korea
Tel: +82-31-708-2000 / Fax: +82-31-708-2007 / Web site: www.topfield.co.kr
E-mail: enquiry@topfield.co.kr

Capture the Perfect Blue Sky.
With MTI's New Blue Line **MTI**
We make the essential
2001



MTI is a world class developer and manufacturer of LNBs and other RF related technologies such as VSAT, LMDS and Digital Microwave Radio. The next generation of Blue Line LNBs sets the standard, by which all other LNBs will be judged.

MICROELECTRONICS TECHNOLOGY INC.
100-1, Bundang-Rd, Seongnam-City, Gyeonggi-Do, Korea
Tel: +82-31-708-2000 / Fax: +82-31-708-2007 / Web site: www.mti.co.kr
E-mail: enquiry@mti.co.kr

FTA
COMMON INTERFACE TECHNOLOGIES KOREA
100-1, Bundang-Rd, Seongnam-City, Gyeonggi-Do, Korea
Tel: +82-31-708-2000 / Fax: +82-31-708-2007 / Web site: www.ftp.co.kr
E-mail: enquiry@ftp.co.kr



HUMAX
2001

enjoy
the digital future
now!

We are living at the edge of a digital revolution - and HUMAX provides the gateway to this new era. With state-of-the-art digital technology converging the areas of broadcasting, communication and home entertainment. By specializing on digital consumer electronics HUMAX already offers the most complete array of digital set-top boxes available. And we are out for more - aiming to be a leader in the digital multimedia world. With intelligent products offering maximum entertainment, information and ease of use - for the prime time of the millennium people.



HUMAX
your prime time

www.humaxdigital.com

FTI Tech Co., Ltd. Korea
100-1, Bundang-Rd, Seongnam-City, Gyeonggi-Do, Korea
Tel: +82-31-708-2000 / Fax: +82-31-708-2007 / Web site: www.fti.co.kr
E-mail: enquiry@fti.co.kr

Pleasant Life Through
Digital Multimedia Technology
www.arion.co.kr **ARION**
2001



Digital Satellite Receiver

FTA
Common Interface
FTA + Positioner
CI + Positioner

arion
Technology

8F, Seo-Keon Bldg, 1488 Kwan-Yang Dong, Dong An-Ku, An-Yang City, Kyung Ki Do, Korea 431-080
TEL: +82-31-421-2500 FAX: +82-31-421-2510

These Companies Started Their International



DREAM 2002

A star is born...



Magic Module
Free programmable PCHCIA Module with integrated card reader
for ISO Norm.

- 5V PCMCIA slot - 3, IV chip-technology: normal (very low
power consumption)
- 64Kb 128Kb / 512Kb
- 720Kb RAM, 270Kb flash
- 68 pin PCHCIA connector

Usage: for:
- universal reader and writer for laptops such as for:
- GSM card up to 128 Kbit/s (270Kb) or 128 Kbit/s
- e-mail program and security over internet
- password of card reader to your laptop

Magic Module Programmer
Also required is the programmer program in our cam.

Dream-Multimedia-TV GmbH
Bismarckstr. 20
50759 Pfaffen
Germany
Phone: +49 (0) 42 73 - 22 31 57
fax: +49 (0) 42 73 - 22 31 57
www.dream-multimedia-tv.de
info@dream-tv.com



DREAM
multimedia

www.dream-multimedia-tv.com

SAMSUNG CORPORATION

SAMSUNG 2003

"Your Right Choice"

SFT-703E Plus (Free-To-Air) / SCI-703E Plus (Common Interface)

When was the last time that you felt good about your choice? Samsung is the right choice when it comes to digital satellite receivers. Ask for Samsung 703 Plus Series & 703 CAS Series. The brand you know!

- 3600 TV and Radio Channels Programmable
- SUPER-Digital Audio Output
- Tuned-in & 100 Picture Memory and Still-life
- VCR Record-to-through EPG
- Sleep and Wake-Up timer



Samsung Corporation Product Line-up
 For more information, please visit our website at www.samsung.com
 HAMILTON: Professional Service, An Hamilton (Hong Kong) Satellite Service, 8888888
 Tel: +852-2616 8888 Fax: +852-2616 8888 E-mail: info@hksatellite.com.hk
 *This website does not contain any information for Singapore and Macau markets.

http://stb.samsungcorp.com

Success with TELE-audiovision Magazine

SVEC 2003

JONSA 2004

CABSAT 2004

JIUZHOU 2004

CHANGHONG

2006

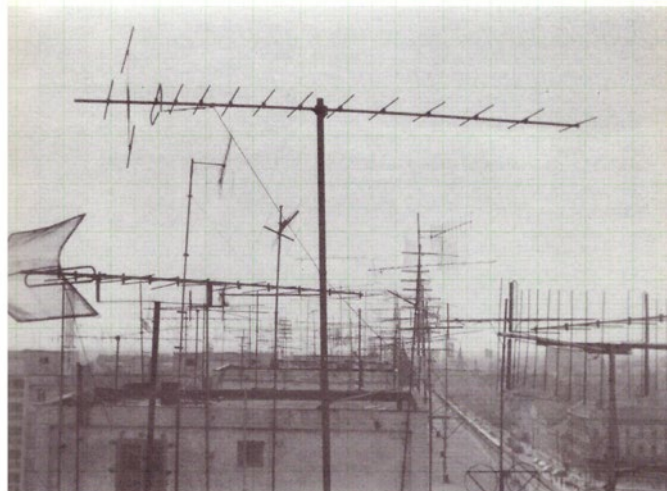
ISSN 0721-5444

TELE - audiovision

Zeitschrift für UKW und Fernsehen

Nr.19 Jan./Februar 1984 DM 5,-

Über den Dächern von Bukarest Fernsehen in Rumänien



- High-Com bei der ARD
- Lokalkradio Schweiz
- Satelliten Antennen
- RTL-Plus Programm

30 Years Ago

Orkney Wireless Museum

High up in Scotland, on the Orkney island, James MacDonald manages a small museum dealing with the history of radio. He published a book about his museum and also tells the story how television finally arrived at this remote island.

"An Orkney Wireless Museum" by James MacDonald



Sat-TV

Der russische UHF Satellit

Na, haben Sie es schon probiert? Im letzten Heft lobten wir zwei Freilabas aus für diejenigen, die uns als erste den Empfang des russischen UHF-Satelliten nachweisen.

Hier noch einmal die wichtigsten Daten des Satelliten:

FREQUENZ: 714 MHz (UHF-Kanal 51)

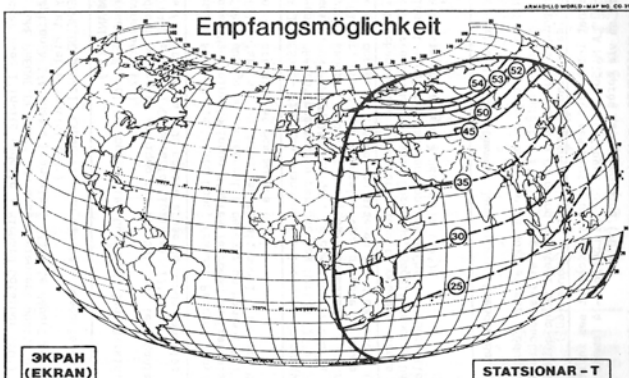
POLARISATION: zirkular

BILD: Frequenzmoduliert

TON: 6,5 MHz

FARBE: SECAM-G

Der Empfang in Westeuropa ist tatsächlich schwierig, wie untenstehende Ausbreitungskarte zeigt. Dennoch müßte der Satellit noch hereinzubekommen sein, ganz sicherlich bei troposphärischen Überreichweiten. Allerdings wird der Empfangsaufwand recht hoch zu treiben sein.



Wußten Sie schon,

daß die UHF-Kanäle 36 und 38 (nicht nur) in der Bundesrepublik "nicht-öffentlichen Diensten" vorbehalten sind?
Auf Kanal 36 sendet bei uns überhaupt kein TV-Sender, auf Kanal 38 senden nur sechs Mini-Füllsender (drei mit ARD-SWF, drei das ZDF-Programm).

16 TELE-audiovision 19 1984

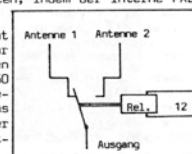
Technik

Aus Zwei mach Eins

Koax-Relais der Superlative

Welcher DXer wollte nicht schon zwei Antennenleitungen zusammenbringen ohne Verluste durch eine Antennenweiche? Mit diesem 12-Volt-Relais lassen sich sogar zwei Antennen für unterschiedliche Bildnormen schalten, indem der interne PAL-SECAM oder NTSC-Schaltimpuls die Kontakte umschaltet.

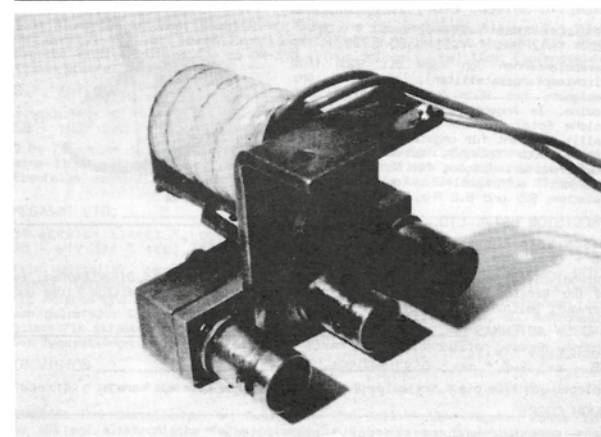
Mit besonderem Aufwand wird der im Augenblick nicht benötigte Zweig kurzgeschlossen, was zu einer sehr hohen Übersprechdämpfung führt. Im VHF-Bereich werden damit Werte bis zu 70 dB, im UHF-Bereich bis zu 50 dB erreicht, der Grenzwert wird bei 2,35 GHz angegeben. Die Durchgangsdämpfung ist kaum meßbar. Das Relais sollte aber dennoch keineswegs gleich hinter einen Verstärker eingeschleift werden, ein Mindestabstand von 5m sollte gewahrt bleiben.



Das Koax-Relais kann auch für Senderzwecke eingesetzt werden, die Mimik verträgt ohne Schaden bis zu 100 W. Ein kleiner Kondensator (1µF, 100V) parallel zur Wicklung schützt weitgehend vor induktiven Spitzen in der Elektronik.

Das Gerät wird oberflächenversilbert ausgeliefert. Es empfiehlt sich, gleich drei BNC-Stecker mitzubestellen. Der Preis: DM 59,- plus Spesen.

Bezugsquelle: Firma Schönmann • Neuhofstr. 24 • D-1000 Berlin 47.



Koax-Relais für besondere Zwecke wie hohe Signaltrennung bei zwei Antennen. Bericht + Foto: RB

TELE-audiovision 19 1984 17

Satelliten-TV zuhause

Nach wie vor darf man bei uns Satellitensender nicht frei empfangen. Grund: Alle bisherigen Fernseh-Satelliten fungieren immer noch als "Fernmeldesatelliten" und nicht als "Direkt-Empfangs-Satelliten". Letztere wären, gäbe es sie schon, genehmigungsfrei zu empfangen, für erstere benötigt man eine Post-Genehmigung, die man erst, wenn überhaupt, nach viel Papierkrieg erhalten kann. Trotzdem hier einige Anschriften von Satellitenfirmen in England, dem europäischen Satellitendorado, die Ihnen eine Empfangsanlage liefern können.

Vorbemerkung: Die Parabolantennen sind formmäßig für 4GHz und 12 GHz identisch. Der Unterschied: Bei 4 GHz genügt eine Herstellungsgenauigkeit von etwa 1 cm in der paraboloiden Form, bei 12 GHz müssen es 3 mm sein. Auch muß die Parabolantenne vollkommen symmetrisch sein (keine Verformungen speziell am Rand), jede Ungenauigkeit verringert rapide den Gewinn.

SATELLITE TV ANTENNA SYSTEMS LTD.

10 MARKET SQUARE * STAINES * MIDDLESEX *
GB - TW18 4RH * TEL: 0784 61234/52155

Bietet Antennen des spanischen Herstellers Tagra an, von 0.6m bis 3.0m Durchmesser. Genauigkeit für 12 GHz geeignet. Außerdem im Angebot eine 1.8m Antenne von Galt Antennas Ltd. Große Auswahl an Elektronik, Verstärker, externen Tunern etc. Exportiert viel in die USA.

MAGNETIC SHIELDS LTD.

HEADCORN ROAD * STAPLEHURST * KENT *
GB - TN12 0DS * TEL: 0580 891521

Parabolantennen von 40cm bis 90cm (für Direktempfangsatelliten), für 12 GHz geeignet, der 90cm Spiegel bringt 37dB Gewinn. Im Angebot eine komplette Anlage (siehe Foto) für den russischen 4GHz-Satellit Gorizont für umgerechnet DM 4000.-- Enthält 90cm Spiegel, Vorverstärker und Downconverter. Ausgang für Normalfernseher geeignet: auf Kanal 3, Ton unschaltbar zwischen 5.5 und 6.0 MHz, Farbe in SECAM.



PRECISION METAL LTD.

MASON ROAD * STATFORD-UPON-AVON * WARWICKSHIRE *
GB - CV37 9NU * TEL: 0789 66131

Parabolspiegel von 1m bis 3.7m, speziell für den künftigen Direktempfang im 12 GHz Bereich geeignet. Precision Metal ist die älteste derartige Firma und verkauft weltweit seit 25 Jahren.

ANDREW ANTENNAS

LOCHGELLY * FIFE *
GB - KY5 9HG * TEL: 0592 780561

Spiegel von 1.8m bis 4.5m, alles Zubehör. Importfabrikate aus Kanada.

HUGH COCKS

CRIPPS CORNER * ROBERTSBURGH * EAST SUSSEX *
GB - TN32 5RY *

Nur Elektronik, aktuell im Angebot für 4GHz (Gorizont): Vorverstärker, rechtsdrehend auf linksdrehend umsteckbar, downconverter mit 1.2F bei 750 MHz. Demo-

18

TELE-audiovision 19 1984

Das Superbuch!
RIM-Elektronik-Jahrbuch '84

Der kurze Weg zur
umfassenden Information
in Sachen Elektronik



Über 1270 Seiten stark, reichlich illustriert mit zahlreichen Schaltungen, Plänen, Skizzen und Abbildungen. Preis unverändert nur 15,- DM plus Versandspesen. Vorkasse Inland: Für Packchenporto 3 DM (15 + 3 = 18 DM). Postscheckkonto München Nr. 2448 22-802. Nachnahmegebühr Inland 4,70 DM + Zahlkartengebühr (15 + 4,70 + 1,50 = 21,20 DM). RADIO-RIM GmbH - Postfach 202026 - Bayerstraße 25 - 8000 München 2

dulator mit 2.2F bei 40 MHz und Detektor für 625 Zeilen FM-Bild. Tonträger schaltbar 7.0 und 7.5 MHz, als Option stufenlos von 5.5 bis 7.5 MHz. Preis: Kopfeinheit DM 940.-; Demodulator DM 600.-; Tontell: DM 140.-.

HARRISON ELECTRONICS

22 MILTON ROAD * WESTCLIFFE-ON-SEA * ESSEX *
GB - SS0 7JX * TEL: 0702 332338

1.9m Aluminium Antenne, geeignet für 4GHz und für Wettersatelliten auf 1.7GHz. Der Spiegel kann mit einem Ergänzungsring auf 2.5m gebracht werden. Als abgemagerte Billigversion für ca DM 360.- (nur Spiegel) erhältlich. Empfangsantenne ebenfalls im Angebot.

S.P. ANTENNA SYSTEMS

3 WOOLPACK CORNER * BIDDENDEN * ASHFORD * KENT *
GB - TN27 8BU * TEL: 0580 291090

2.0m Fiberglas Spiegel mit hoher Genauigkeit. Eine Spezialhalterung ermöglicht eine lineare Bewegung des Spiegels (mehrere Satelliten auf einer Umlaufbahn). Ebenfalls erhältlich 3m und 6m Spiegel. Ca-Preis des 2m Spiegel: DM 1200.-.

MEGASAT LTD.

36 BERWICK STREET * LONDON *
GB - W1V 3RF * TEL: 734 2575/7335

Kein Hersteller, sondern Wiederverkäufer von Parabolantennen der Firmen: IRTE, Andrew, Teleste, Miralite, Simulat, Satellite Technik, Precision Metal, Scientific Atlanta und Sat Com Technologies. Elektronikteile werden von folgenden Firmen geliefert: DX, NEC, LNR, Luxor, Gamma F, Equinox, Aventure, GEC McMichael, Scientific Atlanta und Satellite TV Antenna Systems.

Das Megasat-Angebot kann auch über die Schweizer Firma Erivision bezogen werden:

ERIVISION

INDUSTRIE WEST * CH - 6343 ROTKREUZ * TEL: 042 - 64 24 31

HINWEIS: Bei Bestellungen im Ausland an den Zoll denken (Abgaben können bis zu 40% auf elektronische Teile betragen). HF-Geräte aus England tragen keine FTZ-Nummer und dürfen laut Vorschrift nur im Ausland betrieben werden. Wer es sich leisten kann, sollte versuchen, direkt bei den Firmen einzukaufen, so können auch Unklarheiten noch besprochen werden.

AU/RB/Satellite-TV-News

TELE-audiovision 19 1984

19

FERN-SICHT
TV-Sender

Zusammenstellung:

Gösta van der Linden * Noorderhavenkade 21 b * NL - 3039 RD Rotterdam

ÄGYPTEN

Zwei neue Sender sind im Band I in Betrieb genommen worden:
Dumyat EBT-2 Kanal E-2 Hor. Koord.: 31E48 31N24 900 Watt, Rundstrahler
Dumyat EBT-1 Kanal E-4 Hor., sonst u.o.

EBU

BUNDESREPUBLIK DEUTSCHLAND

BAYERISCHER RUNDFUNK: Am 21.12.83 nahm der BR für das 1. Programm seinen 217. Füllsender in Versbach (Würzburg) in Betrieb. Kanal 47 mit 3 Watt horizontal. BR
NORDEUTSCHER RUNDFUNK: Seit Mitte Oktober 83 wird während der Testbildzeiten nicht mehr NDR-2 sondern NDR-1 mit dem jeweiligen Landesprogramm übernommen. NDR

BELGIEN

Der Sender Wavre ist immer noch nicht reperierte, die Fernsehprogramme Tele-2 (RTBF) und TV-2 (BRT) auf den Kanälen 28 bzw 25 werden nicht ausgestrahlt.

FRANKREICH

Die Sender Metz (F6), Lille (F8A), Mulhouse (F8), Brest (F8) und Amiens (F11) sind außer Betrieb genommen worden, ebenso die Sender im UHF-Bereich Forbach (28), Chartres (32) und Neufchatel (65). - (Alte 819-Zeilen-Sender)

LIBANON

Wieder zwei neue Sender im Band I in Betrieb:
Beit Mesry TL-3 Kanal E-2 Hor. Koord.: 35E36 33N55 1kW, Rundstrahler
Maaser-el-Chouf TL-2 Kanal E-4 Hor. 35E45 33N45 60kW, Rundstrahler EBU

LUXEMBURG

RTL sendet jetzt auf E-7 das PM5534 mit neuer ID: "Kanal 7" (oben) und "RTL Plus" (unten)

SYRIEN

Alle SRT-Sender in Band-I benutzen kein Testbild mehr nach Beobachtung eines TV-Dixers auf Zypern/Nikosia. Weiters gibt es neue Band-I-Sender:
Aboukanal SRT Kanal E-3 Hor. Koord.: 40E56 34N27 400kW, Richtung 90 (Ost)
Der Sender Nabl-Saleh auf E-3 wurde von 180 auf 400kW erhöht, es gibt jetzt also in Syrien zwei Großsender auf E-3! Die Leistung des Senders Hassake auf E-4 wurde von 95kW auf 35kW vermindert, zugleich wurde eine Rundstrahlantenne eingesetzt.

EBU

TV-Programme

ÖSTERREICH

Die Österreichische Volkspartei fordert jetzt auch für Österreich Privat-TV wenigstens im Kabel. Der Mediensprecher der ÖVP hofft schon für dieses Jahr auf Privat-TV. Der ORF ist, logo, dagegen, Unterrichtsminister und vielgelesener ORF-Moderator Helmut Zink befürchtet, oh je, "ein totales Chaos im Äther", wenn jedermann Sendungen machen dürfe, wie der "Kurier" am 5.1. berichtete. Auch die Sozialistische Partei ist, ebenfalls logo, gegen Privat-TV.

Beim Kabel-TV beginnt
ORF-Monopol zu wackeln

via H-Macht

26

TELE-audiovision 19 1984

BUNDESREPUBLIK DEUTSCHLAND

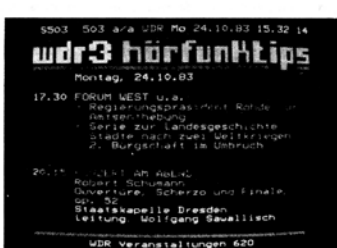
Auf ihrer Arbeitssitzung Ende November 1983 beschlossen die Intendanten der ARD, die Fernseh-Restversorgung beschleunigt fortzusetzen. In den vergangenen Jahren waren Versorgungslücken durch den Bau von Fernsehfüllsendern bis zur Grenze von 800 unversorgten Einwohnern herab geschlossen worden. Zum weiteren Ausbau der Fernseh-Restversorgung unterhalb der 800-Einwohnergrenze soll nun für die Jahre 1984 und 85 die Planung in Angriff genommen werden. Außerdem können die ARD-Anstalten, die selbst die Sender für ihre Programme (1. ARD-Programm) betreiben, und die Deutsche Bundespost, zuständig für die Sender des ZDF und der Dritten Programme, durch die gemeinsame Benutzung vorhandener Fernsehfüllsender-Standorte Versorgungslücken bis hinab zu Lücken von 200 Einwohnern schließen.

Allein der Bayerische Rundfunk plant durch die Mitbenutzung vorhandener DBP-Standorte 90 neue Sender in Betrieb zu nehmen. Dadurch wird sich der Versorgungsgrad für das 1. Programm auf 99% aller Einwohner Bayerns erhöhen.

Dieser Senderausbau ist durch die Gebührenerhöhung am 1.7.83 möglich geworden.

BR-Technische Information

VIDEOTEXT: Die Deutsche Bundespost, die ARD und das ZDF beschlossen kürzlich die endgültige Festschreibung der schon bisher benutzten Videotext-Norm. Vorausgegangen war eine Entscheidung der westeuropäischen Fernmeldeverwaltungen im September letzten Jahres, die sich einstimmig für diese Norm aussprachen. Damit ist der technische Versuchscharakter des bisherigen Feldversuchs beendet und es besteht die Aussicht auf einen weiteren Ausbau der Videotext-Programme.



WDR-Videotextseite

Fotos: WDR-print

WDR-print/TX-ARD

KABELPILOTPROJEKT LUDWIGSHAFEN: Am 1. Januar starteten die ersten Privatfernsehprogramme für die knapp 2000 angeschlossenen Kabelhaushalte (bei großzügiger Rechnung sind das etwa 10.000 potentielle Zuschauer) in Ludwigshafen. Besonders attraktiv ist das Programm wegen der paar Zuschauer verständlicherweise nicht, geboten werden mehr oder weniger nur alte Kamellen aus dem Fundus der ARD. Das hochtrabend "Erstes Privates Fernsehen" genannte Privatprogramm bringt lediglich zweitverwertete Programme aus dem täglichen ZDF-Angebot, die "Programmgemeinschaft für Kabel- und Satellitenrundfunk" bietet neben ARD/ZDF-Filmen wenigstens noch eigene, von der Frankfurter Zeitung gestaltete Nachrichten. Ein Durchsahnderprogramm, das sich "Kooperationsgemeinschaft Bürgersevice" nennt, bringt alles andere als Bürgerprogramme nämlich PR-Spots aller möglichen hochgeistigen Interessengemeinschaften. Eher interessant ist der "Einzelanbieter"- und der "Offene"-Kanal, auf dem ersteren tummeln sich diverse professionelle, private Medienfirmen, auf dem letzteren kann der einzelne Bürger selbst Programme gestalten.

TELE-audiovision 19 1984

27

SATELLIT **ELE** **EUROPE'S SATELLITE MAGAZINE** **2/94** DM 5,50
OS 72,- + 50,- 8,50
SP 150,- + 30,- 60,-

New Sat-Generation
Seemann
GPA-MOBIL-SAT

JOHANSSON
KATHREIN
QUADRAL
RBM POWER SAT
SAT SYSTEMS

20 Years Ago

Mobile Antenna

Seemann introduced this semi automatic antenna for mobile homes. Travelling it is folded. At destination it is erected to a predefined elevation, then it is automatically fine-tuning azimuth with autofocus. The correct elevation can be found on a map, which Seemann adds to the package.



PREDKI
OD 1985 r. NA RYNKU TV - SAT
SEIT 1985 AUF DEM SAT - MARKT
SINCE 1985 ON SAT - MARKET

Predki GmbH
Postfach 191 • Helenenhöhe 19
D-45721 Haltern
Tel.: +49-2364-16 98 63
Fax: +49-2364-16 94 61

Predki
Wieniawskiego 20a
Szczecin • Polska
Tel.: 91-702 97

Neu!
LNBF für ASTRA D
LO 9,75 GHz

60cm
2mm Alu
(der stärkste Alu-Spiegel auf dem Markt)
nur 3 Grad Öffnungswinkel
mehr als 36,3 dB Gewinn

Fantastic quality

Predki-910 B
Sat-Receiver mit OSD
• eingebauter Positionierer
Testurteil: Tele-Satellit Sept. '93
Empfängsergebnisse: **sehr gut**

Predki-Caro
Sat-Receiver mit OSD • Philips Stereo-Sound
• Sharp-Tuner 2050 MHz.

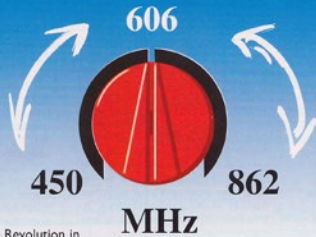
Seemann
Satelliten-Empfangs-Technologie

Eine Bandbreite mehr Unterhaltung. Mit Seemann.

Wer die gesamte Bandbreite moderner Satellitenprogramme effektiv nutzen will, benötigt ausgereifte Qualitätsprodukte. Seemann bietet eine ganze Palette innovativer, bedienungsfreundlicher Geräte mit Zubehör. Vom Spiegel bis zur kompletten Drehanlage, vom Nachverstärker bis zum High-End Receiver. Um Ihnen hier unser Programm in seiner ganzen Bandbreite vorzustellen, hätten wir 36 Seiten mit Anzeigen belegen müssen, das schien uns zu aufwendig. Deshalb haben wir für Sie einen übersichtlichen Gesamtkatalog vorbereitet: Fragen Sie beim Fachgroßhandel oder direkt bei uns danach.

Telekommunikationstechnik
Seemann GmbH
Eglishalde 14
78647 Trassingen
Telefon 07425/933-0
Telefax 07425/933-10

Der erste umschaltbare! Breitbandverstärker ist da!



Nun ist sie da! - die Revolution in der Bandbreitenverstärkung. Das Zauberwort heißt FUTURE-KEY - ein kleiner Umschalter mit großer Wirkung. Je nach benötigter Übertragungsbandbreite sind Sie immer up to date - mit einem einfachen Dreh stellen Sie zukünftig unsere neuen Bandbreitenverstärker der ULTRA-LINE auf 450, 606 oder 862 MHz ein.

Sollte Ihnen dies unglaublich vorkommen vergewissern Sie sich über unsere Hot-Line - Schalten Sie jetzt!

Info-Hot-Line
05401/480861



PKO-OSMO Telcom GmbH · Brüsseler Str. 2 · 49124 Georgsmarienhütte · Tel. 05401/4808-0



TREFFPUNKT VON KABELN UND SATELLITEN.

Cable & Satellite '94 findet vom 11. bis 13. April in Olympia in London statt. Es ist die beeindruckendste und erfolgreichste Ausstellung dieser Industrie in ganz Europa. Alle neuesten Anwendungen, Produkte und Dienstleistungen werden zu sehen sein. Von digitaler Komprimierung bis zu Satellitenbetreibern, von interaktiven Systemen bis zu Prüfgeräten, von Software bis zu Teilnehmermanagementsystemen. Das erklärt dann auch schon, warum so viele führende Aussteller und Besucher anwesend sein werden. Cable & Satellite '94 ist mehr als eine Ausstellung, es ist ein Treffpunkt, der Raum bietet für Gespräche und zum Anknüpfen neuer Kontakte.

Ein Ort, an dem Sie die Form der Zukunft sehen können, indem Sie sich die Besten der Gegenwart ansehen.

Für nähere Angaben und kostenlose Eintrittskarten rufen Sie einfach bei **+44 (0) 81-984 7733** an. Oder senden Sie den nachstehenden Abschnitt per Telefax, **+44 (0) 81-593 7890** oder per Post an:

Cable & Satellite '94,
PO Box 18, Barking IG11 0SH,
Großbritannien.

Cable & Satellite
Olympia London
11-13 April '94

Bitte senden Sie mir mehr Informationen und kostenlose Eintrittskarten für die Cable & Satellite '94 Exhibition.

Name (Herr/Frau) _____ Berufsbezeichnung _____
 Straße _____ Firmenanschrift _____
 Postleitzahl _____ Tel. _____ Fax _____
Cable & Satellite '94, PO Box 18, Barking IG11 0SH, Großbritannien. Tel.: +44 (0)81-984 7733. Fax: +44 (0)81-593 7890.

Jetzt mit
ARD und ZDF



ASTRA –
Blicken Sie mit uns
in die Zukunft...

... auf den Zukunftsmarkt: Mehr Unterhaltung und Information in Fernsehen und Radio. Jetzt auch mit ARD, ZDF und Dritten Programmen. Die Zukunft hat begonnen: Mit ASTRA – dem Satellitensystem für Fernsehen und Radio. Mit einer einzigen Schüssel versorgen Sie alle: Vom Einzellempfänger bis zu großen Wohnkomplexen.

Nutzen Sie Ihre Chancen im GA/GGA-Bereich. Mit ASTRA als Partner, damit die Zukunft nicht ohne Sie stattfindet.

ASTRA-HOTLINE

Sie haben Fragen zu ASTRA? Rufen Sie uns an: **02 21 / 38 42 76**

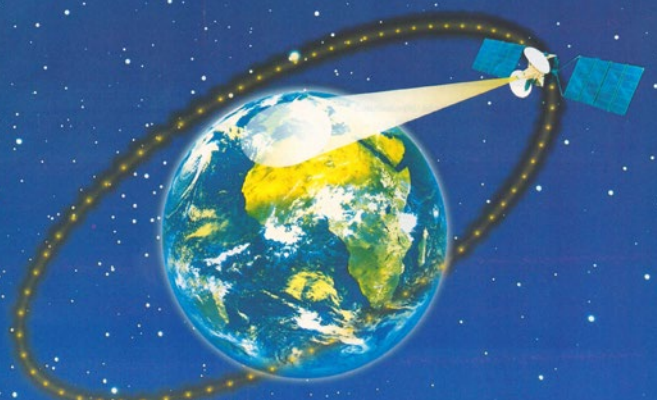
ASTRA ist ein eingetragenes Warenzeichen der Société Européenne des Satellites.
ASTRA Information Nr. 6



CeBIT Hannover, 16.-23.03.1994 / hall 23

SATELLITE BUSINESS

International Market for the Exploitation of
Satellite-Technologies



Com/Munic • Kongresse • Messen • Seminare
Konrad-Celtis-Straße 77, D-81369 München,
Telefon 089/74 11 72 70, Fax 089/74 11 72 79

The World's Largest Satellite Magazine
#12-01 2004
www.TELE-satellite.com

TELE SATELLITE INTERNATIONAL

All New Satellite Channels

EXCLUSIVE SATELLITE SOFTWARE

In This Issue:
Activation Code for SatcoDX
Satellite Chart Software

Future-Proof Receiver:
2 Tuners and
20,000 Channels

Espionage:
How to View Secret
Military Satellite Images

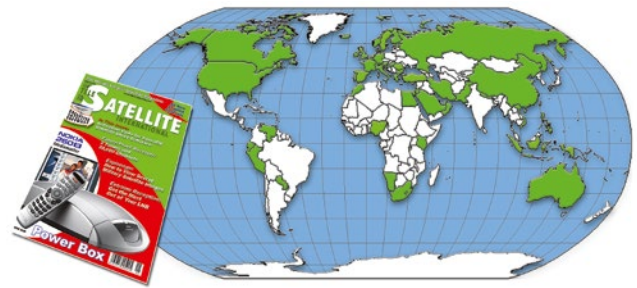
Extreme Reception:
Get the Most
Out of Your LNB

NOKIA 2606 Mediamaster

Power Box

ENG EUR

10 Years Ago



Distribution of TELE-satellite Magazine at Newsstands and Bookshops around the world in 2004

Quality as its own

Golden Interstar®

Germany

Receiver DSR-8001 Premium
with new NEC Chip-Technology

- Vollständig MPEG2 und DVB kompatibel
- 6000 TV- und Radio-Programmplätze
- Speichert bis zu 1000 Transponder
- Sehr schneller Kanalwechsel
- Einfach zu installierendes Programm-Setup
- SCPC & MCPC-Empfang von C/Ku-Band Satelliten
- On-Screen Kanal-Information über EPG
- Teletext über VBI und OSD unterstützt
- Kindersicherung
- Mehrsprachiges OSD
- DiSEqC 1.0 und DiSEqC 1.2/1.3 kompatibel
- Dolby-Digital-Ausgang
- Multibild-Funktion

- MPEG-2 digital & fully DVB compliant
- 6000 Channels of TV & Radio programmable
- Support to store 1000 transponder
- Quick Channel switching time
- Easy installing program setup
- SCPC & MCPC receivable from C/Ku-Band satellites
- EPG for on-screen channel information
- Teletext supported by VBI and OSD
- Parental lock facility channel and program event
- Support languages option
- DiSEqC 1.0 and DiSEqC 1.2/1.3 Control compatible
- Dolby Digital Output
- Multipicture-Function

DIGITAL VISIONS

Chakir Telecommunication, Stuttgarter Str. 36, D-73635 Rudersberg/Germany
Fon +49 (0) 71 83 - 3 05 94-0, Fax +49 (0) 71 83 - 3 04 94-20, email info@chakir.de

Tune in to new channels of electronic media

Get connected to the region's most prominent event of its kind, CABSAT is an annual showcase of the latest innovations and developments in the cable & satellite, television and broadcast equipment industries. CABSAT is your link-up to a market of more than one billion consumers via Dubai, the financial, commercial and e-business capital of the Middle East.

Extensive Product Profile:

Cable & Satellite: Antenna • Cable installation equipment • Calibration equipment • Combiners • Connectors • Decoders • Digital audio equipment for CATV • Down converters and line amps • Electronic accessories • Feed horns • Head end equipment • LNBs • MMDs • Modulators/demodulators • Receivers • Signal generators • SMATV systems • Splitters • Tap • Test equipment • Billing & management systems • Broadcasters • Consoles • Digital compressors • Encryption • Interactive services • Network design • Programme providers • Publications • Research • Satellite services providers • Turnkey systems • Uplink facilities

Broadcast: Animation tools • Broadcast origination • CAD/CAM/CAI/CI • Digital voice broadcasting • Encoders/decoders • Multimedia • Production technology • Recording systems/studios • Sound processing equipment • Visual reality sets • And more

Telecommunications: Base stations • Cellular switching systems • Data networks • Internet services • Microwave radio • Multimedia • Satellite telephones & communication • Surveillance & switching systems • Videoconferencing • And more

For further information, please contact:
International Project Manager
Dubai World Trade Centre (LLC), PO Box 9702, Dubai, UAE, Tel: (+9714) 3286012 Fax: (+9714) 3218034/3229005
Email: david.lim@dwtc.com www.cabsat.com

The 10th Middle East International Cable, Satellite, Broadcast & Telecommunications Exhibition

8th - 10th February 2004
Dubai International Exhibition Centre

Yes, I am interested in exhibiting at CABSAT 2004. Please send me a full information pack.

Name: _____ Position: _____ Company: _____

Address: _____ Tel: _____ Fax: _____ E-mail: _____

Please fax this coupon to: (+9714) 3218034 or 3229005

NOKIA

Mediamaster 260 S



Power-Box

Why must a digital set top receiver always be in the shape of a four-cornered box? NOKIA has proven with the unique design of the new Mediamaster 260 S that it doesn't always have to be that way. The 260 S is not all that big and so you would guess that what goes on inside the box is typical of all receivers. That this idea is completely false can be seen simply by taking a quick look at the features of this receiver. At first you will discover a normal digital receiver with 3000 channels. Another look will reveal the 80GB hard drive that is good for up to 80 hours of recordings. And it is not only video and audio that can be recorded on the hard drive but also digital photos from your PC or from a mobile phone's camera. How is this done? Via USB? No, the NOKIA handles this with the wireless Bluetooth technology.

As we mentioned, the modern looking, silver-colored cabinet looks very inconspicuous. This allows it to fit in with almost any room environment. There are only two buttons on its slanted front panel: channel up/down and standby. The front panel can be flipped open to reveal one slot for a CA module (for all known encryption systems) and another slot for the SmartCard for the integrated Conax card reader. Two LEDs in the center indicate not only the receiver's operational mode but also the return signals of the remote control, any faults, the Blue-

tooth mode and the software download. On the rear panel two SCart connectors link the receiver to a TV and VCR. Digital audio (S/PDIF) for a Dolby Digital system is available on an RCA jack. If you want to use the 260 S with a stereo system, you simply need to use the two additional RCA outputs (audio L/R). New receiver software can be uploaded via the serial interface or via satellite. Unfortunately, the 260 S is not compatible with the up-to-date SatcoDX data. The LNB signal is routed to a standard "F" connector. NOKIA included a noiseless fan so that the hard drive can keep a cool head without disturbing the user. The silver-colored remote control doesn't only stand out because of its elegant appearance but also because of its ergonomic configuration. Every single button can be easily reached with your thumb. The icons for the individual functions are clearly recognizable and easy to read.

Everyday Use

If the 260 S is turned on for the first time, it responds with the language menu. After the desired language has been selected from a total of 13, the antenna menu appears. The receiver can be installed with a single, multiband (Mini DiSEqC, 2 or 4 LNB's) or DiSEqC motorized system. The motor can be a so-called SatScan or a normal DiSEqC motor. The widely used USALS protocol is unfortunately not supported. The local oscillator frequencies for all C-band and Ku-band LNB's are supported. If necessary the LNB

voltage can be adjusted up or down 0.5 volts. Initially the automatic scan reads in all the programs from one or more satellites. Later the NOKIA Navi Screen display can be activated with the push of a button to choose between all channels or just FTA channels. The scan of an 80-transponder satellite lasted just about five minutes. All 865 TV and 329 radio available channels were found. The 260 S can handle SCPC signals starting at 2.0 Ms/sec. without any difficulties. More experienced users of satellite receivers enjoy the ability to perform

a manual transponder scan with or without NIT and also the ability to manipulate the video, audio and PCR PID's. This is no problem for the 260 S.

Once the desired satellites have been read, the activated Navi Bars can be used to continue working. These Navi Bars may take a little getting used to at first, but after a few minutes you will realize that they are much more practical and faster than going through the menus within menus. The parameters for the type of TV and the digital audio format (PCM or AC-3), among other things, can be set here. In the "Control" folder, channels can be moved, renamed or deleted. Popular channels can wander into user-defined Favorites lists for quick recall at a later time.

Channel switching times are quite fast at 0.5 seconds. An Info bar appears momentarily at the bottom edge of the screen that identifies the channel number, provider, current time, current and upcoming program running times and the channel status (FTA or encrypted). A second push of the Info button displays brief programming information for current and upcoming programs. If more information is needed on a current program or if you want to know what's going up to seven days in advance, simply have a look at the Electronic Program Guide (EPG). This first-class designed electronic TV guide magazine gives you a much deeper look into what is available on satellite TV. The 260

S comes with its own teletext decoder. All pages are immediately loaded into memory so that any page can be displayed in only a fraction of a second. There are also three high-resolution video games at your disposal.

The Hard Drive

A push of the red Record button brings up a small menu. Here you can choose to start a recording immediately leaving the stop time open, set up the length of a recording or identify exactly when a recording should start and stop. An additional option would be to go directly to the Timers to set up the automatic recording of various programs from different channels. An extra special feature is the Time Shift function. If you are interrupted by a visitor or a telephone call while watching TV, all you need to do is press one of the function buttons. The picture freezes on the screen and the program is recorded from that point on. At the end of the interruption, simply press that function button a second time to continue viewing the program from the point of the interruption. The receiver continues to record the program in the background. The end of the program you are watching will simply end a little later than planned.

But what if you absolutely want to get back to a live transmission? This is also no problem. Simply fast-forward through the unwanted parts of the recording until you get back to the live transmission. Previously recorded programs can be protected, left unprotected or set so that it can only be viewed with a PIN code. In this way, important recordings (not accidentally) be recorded over or deleted. If a protected program is no longer needed, it can be moved into the unprotected folder so that it can be

recorded over or deleted. If pictures on a PC or from a mobile telephone's camera need to be transferred to the hard drive via Bluetooth, folders can be set up for their quick and uncomplicated access and display on the screen.



Conclusion

Equipped with a sensitive tuner, 3000 channels on 28 up-to-date preprogrammed satellites, an 80 GB hard drive, Bluetooth technology and Dolby Digital, the tiny NOKIA Mediamaster 260 S definitely belongs to the high-end receiver class. With so many features the question on everyone's mind would undoubtedly be "how easy would it be to use this receiver?" The NOKIA Navi Bars help to make the operation of this receiver very easy. Even a beginner should be able to get the hang of it very quickly. The very well written user manual will hardly be needed. The only features missing are SatcoDX compatibility and an S-VHS output.

A Question of Trust.

GUARANTEED LEGAL!

Only legal products guarantee performance as promised, after-sales support and security for your investment in the future. Common Interface products from SCM Master Distributor MASCOM fulfill the standards (updates, guarantee, name brands, variety, independence, etc.) and protect your value over time.

Choosing a Common Interface module such as AlphaCrypt, Conax, CryptoWorks, Irdeto Access, Mediaguard, Nagravision or Viaccess, will keep you on the right track.

Digital Satellite Receivers and Common Interface modules - all from MASCOM - at your local dealer.

MASCOM GmbH Germany
Kirchstraße 11, D-86511 Unterbergen
Händler-Hotline +49 8233 7430-0
Telefax +49 8233 7430-200
Händler-ServiceLine +49 180 5627266
Telefax +49 180 5627267
E-Mail office@mascom.de
www.mascom.de

MASCOM GmbH CZ
Sokolá 188, CZ-25226 Kozlov
Telefon +420 2 5791 2546
Telefax +420 2 5791 2650
E-Mail info@mascom.cz
www.mascom.cz

NEOTRONICS
WWW.NEOTRONICS.ES

TELÉFONO HOTLINE PARA PEDIDOS 950 087 302
horario de atención telefónica: lunes a viernes 10:00 a 14:00 y 17:00 a 21:00 - Sábados 10:00 a 14:00

RECEPTORES DIGITALES

	119€
	250€
	169€

	279€
	125€
	99€

ACCESORIOS TV DIGITAL

KIT PARABOLICA

65 cm	44€
80 cm	52€
110 cm	118€

MOTORES ANTENAS PARABOLICAS

Motor Diseq Standard	61€
Motor Diseq Azera	78€

CAMs

	115€
	125€
	99€

AMPLIO SURTIDO EN CONSOLAS Y ACCESORIOS

Empresa adherida al programa de subvenciones de equipos informáticos de la Junta de Andalucía

16% IVA no incluido
Los precios pueden cambiar sin previo aviso

WWW.NEOTRONICS.ES

Formas de pago

TARJETA DE CREDITO
PAGO SEGURO ONLINE

Neotronics-Europe, S.L. Pablo Ruiz Picasso n°1, 04005 - Almería

Titular: Neotronics Europe, S.L.
Cuenta: 2100 2680 17 0210017619

TRANSFERENCIA

ENVÍO A TODO EL MUNDO

SEUR

Buscamos distribuidores en toda España, infórmate.

Travel Back in Time

and Read Old Issues of

TELE-audiovision M a g a z i n e

ESTABLISHED 1981

THE WORLD'S LARGEST

DIGITAL TV MAGAZINE

IS ALSO THE WORLD'S

OLDEST MAGAZINE

IN THE INDUSTRY

1982



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8211-deu.pdf>

1986



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8603-deu.pdf>

1986



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8605-deu.pdf>

1987



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8705-deu.pdf>

1987



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8711-deu.pdf>

1988



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8801-deu.pdf>

1988



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8805-deu.pdf>

1988



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8809-deu.pdf>

1989



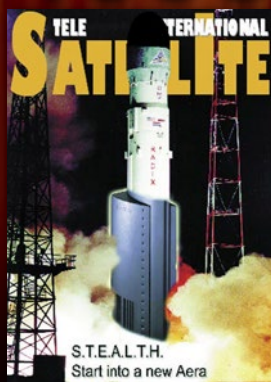
<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8905-deu.pdf>

1989



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-8911-deu.pdf>

1998



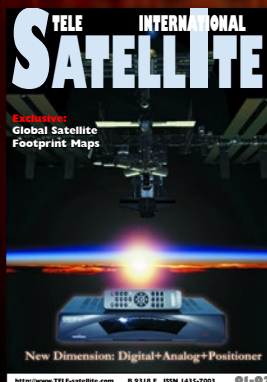
<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-9810-deu-eng.pdf>

1998



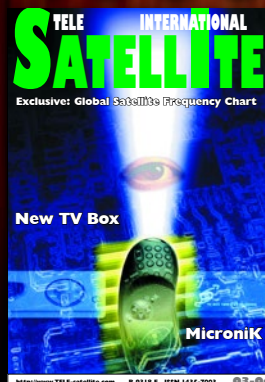
<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-9812-deu-eng.pdf>

1999



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-9902-deu-eng.pdf>

1999



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-9904-deu-eng.pdf>

1999



<http://magazine.TELE-audiovision.com/vintage/TELE-satellite-9906-deu-eng.pdf>

Issue	TELE-audiovision 01-02/2014	TELE-audiovision 03-04/2014	TELE-audiovision 05-06/2014	TELE-audiovision 07-08/2014
#	1401	1403	1405	1407
Editorial Deadline	1 November 2013	27 December 2013	28 February 2014	2 May 2014
Advertisement Deadline 广告截止日期	8 November 2013	3 January 2014	7 March 2014	9 May 2014
Hardcopies	20 December 2013	14 February 2014	18 April 2014	20 June 2014
Online	3 January 2014	28 February 2014	2 May 2014	4 July 2014

Digital TV Exhibitions



7 - 10 January 2014

2014 International CES

Manufacturers, developers and suppliers of consumer technology hardware, content, technology delivery systems and related products and services

Las Vegas Convention Center, Las Vegas, Nevada, USA

Opening Hours:

7 January: 10:00am - 6:00pm

8 - 9 Jan.: 9:00am - 6:00pm

10 January: 9:00am - 4:00pm

www.cesweb.org

21 - 23 January 2014

Convergence India 2014

New Delhi, India

28 - 30 January 2014

CSTB 2014

Moscow, Russia

25 - 27 February 2014

Andina Link 2014

Cartagena, Colombia

10 - 12 March 2014

DVB World

Prague, Czech



11 - 13 March 2014

CABSAT 2014

Premier Broadcast & Satellite Platform in the ME & North Africa
Dubai International Convention and Exhibition Centre, Dubai, UAE
Opening Hours:

11 - 12 March: 10:00am - 6:00pm

13 March: 10:00am - 5:00pm

www.cabsat.com

18 - 20 March 2014

TV Connect

London, UK

21 - 23 March 2014

CCBN 2014

China Content Broadcasting Network Exhibition - largest broadcasting technology and equipment expo in the Asia-Pacific region

Beijing International Exhibition Center, Beijing, China

Opening Hours:

21 - 22 March: 9:00am - 5:00pm

23 March: 9:00am - 4:30pm

www.ccbn.tv

13 - 16 April 2014

HKTDC Spring

Hongkong, China



7 - 10 April 2014

NAB Show 2014

For broader-casting® professionals
Las Vegas Convention Center, Las Vegas, Nevada, USA

Opening Hours:

7 - 9 April: 9:00am - 6:00pm

10 April: 9:00am - 2:00pm

www.nabshow.com

20 - 21 May 2014

SatCom Africa

Johannesburg, South Africa

20 - 22 May 2014

ANGACOM 2014

Cologne, Germany

17 - 20 June 2014

CommunicAsia 2014

Singapore

5 - 7 August 2014

ABTA 2014

São Paulo, Brasil

19 - 21 August 2014

SET Broadcast & Cable 2014

São Paulo, Brasil

5 - 10 September 2014

IFA 2014

Berlin, Germany

11 - 14 September 2014

CeBIT Bilisim Eurasia

Istanbul, Turkey



12 - 16 September 2014

IBC 2014

For professionals engaged in the creation, management and delivery of entertainment and news content
RAI Convention Centre, Amsterdam, The Netherlands

Opening Hours:

12 September: 10:30am - 6:00pm

13 - 15 Sept.: 9:30am - 6:00pm

16 September: 10:30am - 4:00pm

www.ibc.org

October 2014

HKTDC Autumn

Hongkong, China



October 2014

ECEBE Broadband Expo

East and Central European Broadband Exhibition
Keleti u. 1. (Budapark), Budaörs, Budapest, Hungary
www.ecebe.eu



You know...

...where to find *me*



WATCH THE WORLD WITH JIUZHOU

- Nagra CAS, CAK7, NASC1.4
- CI+
- APS HD+
- Twin tuner PVR 5. Integrated hard disk up to 500 GB



JEZETEK

Website: www.jiuzhou.com.cn

www.d-telemedia.com

Email: market@d-telemedia.com

Jiuzhou satisfies all your needs!



CATV Series



LNBF Series



Dish Antenna Series



Fiber Optical Cable Series