UDCAST
IP • BROADCAST • WIRELESS

DVB-H/DVB-T NAVIGATOR

Portable Mobile TV Network Analyzer

DESCRIPTION

The DVB-H/DVB-T NAVIGATOR has been designed to perform mobile measurement campaigns for DVB-T and DVB-H networks. This handheld equipment can be used either when moving in a vehicle at normal speed or by a pedestrian (indoor or outdoor). The campaign can be dedicated to a single channel (frequency) or for multichannel at the same time.

The **main functionalities** for measuring are the following:

- Real time measurement with value displayed simultaneously
- Measurements storage and export for off-line analysis (for DVB-T MPEG and DVB-H)
- Recording of measurement data on the DVB-H NAVIGATOR equipment
- Automatic GPS position display and recording on the DVB-H NAVIGATOR equipment

The DVB-H/DVB-T NAVIGATOR is compatible with all DVB-H /DVB-T broadcasting systems and provides real-time, centralized control of broadcasting signal quality featuring multi-layer protocol analysis (RF, DVB-T, DVB-H, IP) enabling operators to ensure maximum network uptime, improve user satisfaction and reduce operating costs.

The unique DVB-H analyzing functionalities make it also an ideal reference receiver, laboratory tester and development tool for mobile TV equipment manufacturers and service designers.

The NAVIGATOR incorporates LCD screen enabling direct configuration, as well as friendly full-size remotely accessible graphical user interface, designed to reduce the cost of maintenance for large commercial-scale networks, as well as to accelerate the time of development and testing for all new DVB-H products and services in R&D labs.

The input signal is taken both from "off-the-air" or ASI interface, therefore the DVB-H NAVIGATOR can be installed directly within the transmission chain or any remote location, where the real reception conditions can be met.

DVB-H/DVB-T NAVIGATOR

BENEFITS FOR MOBILE TV BROADCASTERS & CELLULAR OPERATORS

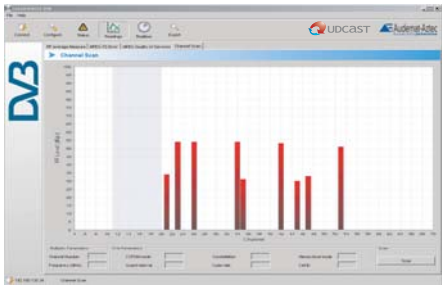
> Complete portable analysing tools
- Easy off-site measurements and analysis
- Automatic frequency scanning
- Content recording and visualisation

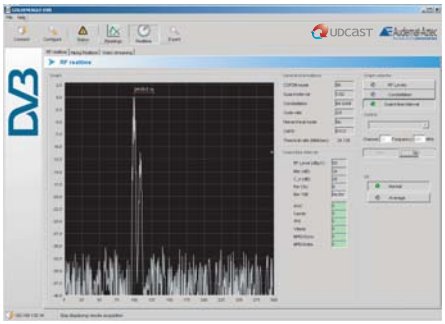
> Mapping representation
- GPS position recording
- Visualisation with MapPoint or MapInfo software

> Faster network deployment
- Monitoring and analyzing simplifies complex deployment decisions
- Dynamic adjustment in network parameters

> Optimised network maintenance costs
- Reduced time of intervention in case of failure
- Data export and import

> Ready for future network evolutions
- Efficiently managed digital switch-over
- Early detection of eventual problems due to change of spectrum allocations and launch of new services





SPECIFICATIONS & FEATURES

Hardware Description
- Built-in LCD screen
- Power supply : Lithium-Ion batttery pack (approx. 3 hours battery life) & external 12 VDC/220 VAC
- DVB-H receiver band III / IV / V
- GPS receiver with antenna (external magnetic mount antenna)
- 2 RF inputs for diversity mode (input level from 14 to 89 DBµV, UHF channel 21 to 69 and VHF channel 5 to 12, accuracy ± 166.6 KHz)
- 1 ASI input (75Ω input impedance on BNC connector)
- 1 ASI output (75Ω output impedance on BNC connector)
- Channel bandwidth: 5, 6, 7 and 8 MHz
- Compatible: QPSK, 16 QAM, 64 QAM
- Headphones
- Dimensions: 48cm (L) x 32cm (W) x 12cm (H) with rackbag: 51cm (L) x 49cm (W) x 19cm (H)
- Weight: 5 kg (approximately)
- MTBF: 57800 H
- Operating temperature: +5°C to 45°C
- Storage temperature: 0°C to 60°C

Communication ports
- Ethernet connection: RJ45 connector 10/100 Base-T port
- Local console link: COM port

Communication protocols
- TCP/IP, UDP, HTTP (+CGI scripts), FTP, SMTP, TELNET, SNMP (MIB integrated), PPP (client & server)

RF Layer Analysis
- RF level
- Carrier / noise measurements (accuracy ±0.5 dB)
- Modulation error rate (accuracy ±0.5 dB), bit/packet error rate
- Constellation analysis
- Channel impulse response visualization and MIP analysis (SFN tests)
- Compatible with 2K, 4K and 8K COFDM modulation modes

MPEG2 Layer Analysis
- DVB-T 1st, 2nd and 3rd priority monitoring (TR101290)
- Detection of all PIDs
- Transport packets usage with MPE/MPE-FEC sections and SI/PSI tables
- Jitter analysis, service availability

MPE Layer Analysis
- Visualization of the DVB-H burst structure & measurement of minimum and maximum delay for each DVB-H packet
- Clear text output of the SI/PSI tables
- Visualization of the Delta-T information
- Measurement of uncorrected MPE-FEC frames

IP Layer Analysis
- Time reference of each received IP packet
- Source and destination IP addresses and UDP ports

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