

MPEG Analysis Platform

MAP 1870



The MAP 1870 MPEG Analysis Platform aids in the design, verification, manufacturing, and deployment of digital TV equipment and systems. It drastically shortens time to market while enabling extremely fast diagnostics and fault isolation. Covering a wide range of DTV applications, the MAP 1870 is the ideal solution for telecommunications operators deploying Internet Protocol Television (IPTV) and mobile TV applications, for cable/satellite/terrestrial operators, broadcasters developing interactive TV businesses, for DTV equipment designers, and for manufacturers. The MAP 1870 is available in a portable or 3 RU chassis. Depending on customer areas of interest, the MAP 1870 can be configured with several types of interfaces (ASI, QAM/8VSB, Gigabit Ethernet) and dedicated real-time and offline tools (MPEG-2 Transport Stream Player/Recorder, MPEG-2 Transport Stream Real-Time Analyzer, MHP Real-Time Analyzer, DVB-H Real Time Analyzer, Video over IP Streamer, Video over IP Real Time Analyzer).

KEY FEATURES

- Interoperability with MPEG-2, DVB, ATSC, and ISDB standards
- TR 101 290 real-time monitoring
- MDI, EPG, bitrate, and syntax analysis
- Fast diagnostics and verification of MPEG designs
- Detailed, comprehensive off-line analysis capabilities
- Built-in duplex capability (play/record/analysis)
- Wide range of interfaces including ASI, Gigabit Ethernet/IP, QAM, and 8-VSB
- Portable and 3 RU chassis with local and remote access capabilities
- Covers wide range of DTV applications including:
 - Satellite TV
 - Terrestrial TV
 - Cable TV
 - Video-over-IP (IPTV, IP based headend)
 - Mobile TV (DVB-H)
 - Interactive TV (MHP)

APPLICATIONS

- Easily and accurately pinpoint error conditions and characterize digital TV signals using the Real-time MPEG2 transport stream analyzer.
- Monitor hundreds of Video over IP streams in Real-time to ensure quality of service for the entire network
- Use the MPEG2 Transport Stream Player/Recorder to acquire live content and record it to disk for later, more detailed analysis offline.
- Test network and IP devices using the IP Streamer to play hundreds of media streams simultaneously.

SPECIFICATIONS

MPEG Analysis Platform MAP 1870

PHYSICAL INTERFACES

MPEG: ASI (2 inputs/outputs), 213 Mb/s
RF: QAM & 8-VSB input
Gigabit Ethernet/IP: 2 independent full line rate ports (in/out), electrical or SFP optical

MANAGEMENT

Local or remote access

MPEG2 TRANSPORT STREAM PLAYER / RECORDER

VCR-like interface (play/record/ pause/loop)
Simultaneous play/record function
Seamless looping by automatic update of continuity counters, tables (TOT, TDT, STT), and time stamps (PCR, PTS, DTS)
Play list including loop mode and deferred starting
Stream preview
Record segmentation (size, duration)

MPEG2 TRANSPORT STREAM REAL-TIME ANALYZER

Digital broadcast compliance testing (MPEG2/DVB/ATSC and ISDB)
Visualization of the MPEG transport stream structure (services, components)
TR 101290 verification (P1, P2, A/V decoding (MPEG-2 & H.264)
Electronic Program Guide (EPG) display
PID chart and bitrate logging
Timing measurement including PTS/ DTS and PCR (PCR_FO, PCR_DR, PCR_OJ, PCR_AC, PCR interval)
MPEG sections rate analysis
Real-time PSI/SI/ISDB syntax analysis, display and extraction
Private syntax analysis and extraction
Manual and configurable triggered captures
TMCC real-time analysis for ISDB (Japanese standard)
Descrambling

DVB-H REAL-TIME ANALYZER

DVB-H syntax analysis
Bursts graphical representation
Delta-t jitter verification
FEC display and error detection
Live IP extraction to the Ethernet port
Live IP extraction to the hard drive
Confidence monitoring through video thumbnails

MHP REAL-TIME ANALYZER

Support MHP 1.1
AIT and DSM-CC U-N messages syntax analysis
Data carousel analysis and display
Object carousel mounting
Statistics
Consistency check

VIDEO-OVER-IP STREAMER

IPv4 and IPv6 full line rate streaming
PCAP, MPEG-2 transport stream files supported
Seamless looping
Stream duplication
Stress functions
Full transport parameters control (IP addresses, UDP ports, VLAN, RTP)
VCR-like interface

VIDEO-OVER-IP REAL-TIME ANALYZER

IPv4 and IPv6 (as option) full line rate analysis
MDI-DF (delay factor) and MDI-MLR (media loss rate)
Bitrate testing
IP session plan verification
Single program live decoding and multi-programs thumbnails (MPEG2 & H.264)
IP forwarding
Manual and trigger capture based on error conditions (ns clock time stamping for replay of field conditions in the labs)
Data and statistics logging
RTP extension header supported
Unicast and multicast (IGMP v2 & v3)
pppoe and VLAN tagging supported
Extended MPEG2 transport stream analysis including TR 101 290, transport stream structure, PID information and syntax analysis
SPTS and MPTS supported
TAP mode

PHYSICAL CHARACTERISTICS

Rackmount chassis (3RU x 19") or
Portable chassis (HT)