

Transport Stream Monitor

TSM 1770



The TSM 1770 Transport Stream Monitor enables engineers to monitor compressed audio, video, and data services on any terrestrial broadcast, cable head-end, satellite, or telco network. With full support for ASI, SMPTE310M, 8VSB, QAM, and Ethernet physical inputs, it provides detailed transport stream and physical layer monitoring for complete system confidence.

Using a multi-layer approach, the TSM 1770 reports the transport stream status on the physical layer, protocol, and audio/video levels. It also monitors quality of service parameters in an easy-to-understand manner, enabling even non-MPEG experts to make accurate decisions and maximize service availability.

To ease the challenges of relating transport stream errors with actual signal degradations, the TSM 1770 presents information using straight-forward thumbnails, audio and video alarms, closed caption decoding, along with a reconstructed program guide. With these intuitive displays, any user can have the right tool to check and understand the impact of any error. For even greater levels of detail, an MPEG expert can connect to the TSM 1770 and view table syntax, monitor for TR 101 290 and ATSC A/78 errors, access error logs, and make stream recordings.

KEY FEATURES

- Centralized monitoring of terrestrial broadcast, cable, or telco signals
- Local and remote monitoring with intuitive web interface
- HD and SD MPEG2 and H.264 support along with 4:2:2 MPEG2
- Remote video streaming of MPEG2 video
- TR 101 290 and optional ATSC A/78 monitoring
- Closed caption decoding display for both MPEG2 and H.264
- Optional advanced Ethernet input provides enhanced Ethernet view
- Database logging for statistics and errors
- Large transport stream and Ethernet captures
- SNMP monitoring and control
- Video format, frame rate, resolution, profile, level, and AFD code display
- Audio format, bitrate, sampling frequency, and number of channel display
- Complete PID/program bitrate display along with a PID map view
- Template creation and automated application for additional confidence monitoring

APPLICATIONS

- Real-time, remote and local monitoring of broadcast and network services
- Detect and correct signal faults before they become customer complaints
- Confidence monitoring through video thumbnails, audio level graphs, electronic program guide (EPG) displays, and closed caption decoding
- Physical layer monitoring of ASI, SMPTE310M, 8VSB, QAM, and Ethernet signals

SPECIFICATIONS

Transport Stream Monitor TSM 1770

INPUTS

- ASI
- SMPTE310M
- 8VSB
- QAM Annex A, B, and C
- Standard Gigabit Ethernet (basic interface)
- Advanced Gigabit Ethernet (measurement interface)

RF INTERFACE

- RF level, MER, EVM, BER tests
- Spectrum display
- Constellation and eye diagrams
- Cycling of channels with configurable time period

ADVANCED GIGABIT ETHERNET INTERFACE

- Full line rate media delivery index (MDI) and TR 101 290 measurements
- Real-time monitoring of hundreds of media streams simultaneously
- Combined IP and transport stream measurements
- Tap mode operation for non-intrusive monitoring
- IP forward
- Accurate timestamp Ethernet (PCAP) capture

PROTOCOL

- TR 101 290 and ATSC A/78
- Table syntax
- H.264 AVC HD and SD
- MPEG2 HD and SD along with 4:2:2
- Bitrate monitoring and logging
- PCR analysis (PCR_OJ, PCR_FO, and PCR_DR)
- ATSC, DVB, ISDB, and MPEG-2 analysis modes
- Large transport stream capture
- Template checking

PROGRAM CONTENT

- Video freeze frame
- Audio absence
- Thumbnails
- Low resolution A/V streaming
- Audio level control
- Program Guide
- Closed captions
- SCTE35 DPI

PHYSICAL CHARACTERISTICS

- Two chassis options depending on configuration
- 1RU x 23"
- 2RU x 19"
- 100-240V, 50-60Hz power supply