

Option TSR for Z Technology DM1010 Measurement Receiver



Option TSR running on a Windows XP™ PC

Option TSR is a transport stream analyzer application licensed to Z Technology by COOL.STF™ for the DM1010 Measurement Demodulator. Option TSR provides a detailed overview of the content of the ATSC MPEG-2 transport stream and decodes MPEG-2 video into thumbnails for visual verification of correct encoder operation. Option TSR decodes the transport stream to view PIDs, bandwidth usage, video, audio, and ancillary data content;; provides ETR 290 stream monitoring; supports ATSC extensions to the base MPEG-2 specification, and reports data errors in the ATSC recommended hierarchy.

Option TSR consists of two components: a hardware module, which adapts the parallel LVDS transport stream output of the DM1010 to a USB format, and the TSR software application, which runs on the user's Windows XP™ PC.

Option TSR Features:

- Decodes MPEG-2 tables with ATSC extensions.
- Decodes unscrambled MPEG-2 video in thumbnail format.
- Thumbnails can be exported as they are generated to JPEG files for remote monitoring via a web browser.
- Parses MPEG, A/52 (AC3) and DTS audio streams to show bitrate/mode settings.
- Shows A/52 (AC3) dialog-normalization.
- Indicates CC/DTVCC streams for ATSC streams
- Records the transport stream to a disk file.
- Records an individual program to a disk file with PAT/PMT regeneration into files with a flexible file-naming scheme.
- PID usage graph with percentage displays for each PID.
- Actual bitrate on PIDs carrying PCR and estimated bitrates for non PCR carrying PIDs.
- PID graph is color coded to indicate unscrambled and scrambled PIDs.
- Counts continuity and TEI errors on mux and PID-by-PID basis.
- Variable resolution real-time or average charting.
- Table report generation into HTML.
- Export mux information to XML
- Automatic transport stream recording and export for unattended operation.

- Record PIDs from a mux either as separate files or combined in their received order.
- TCP/IP based remote control server to allow Option TSR to be operated remotely by other software.
- EPG grid for ATSC networks.
- Video mosaic shows all video streams in the mux.
- Closed Caption (EIA-608) decoder for caption monitoring.
- Stream monitor function with alarms (ETR 290 style).

Option TSR applications:

Stream Analysis

- Find PIDs in a mux quickly even if the MPEG-2 tables aren't correct
- Spot channels within muxes that occasionally switch from scrambled to FTA
- Analyze new transmissions and get all the pertinent technical information about the mux

Stream Recording

- Record transport stream directly to the hard drive
- Record the entire mux and later use Option TSR as a demultiplexor to pull out the individual programs

Stream Monitoring

- Spot if an encoder is running correctly or how much bandwidth is being filled by null or ghost packets
- Monitor JPEG thumbnails of MPEG video to verify correct encoder operation

Stream Viewing

- Stream to public-domain VideoLAN Client

Computer Requirements for Option TSR:

- Windows XP™ operating system.
- 2.5 GHz or faster processor to ensure packets aren't lost with HD streams.
- 256 MB RAM
- Display with at least 1024x768 resolution.

Software License Information:

Option TSR is a hardware/software option for use on one PC connected directly by the supplied adapter cable to a Z Technology DM1010 Measurement Receiver. Option TSR does not support any other application and is not licensed for any other use.