

Leader



LVB440

IP ANALYZER

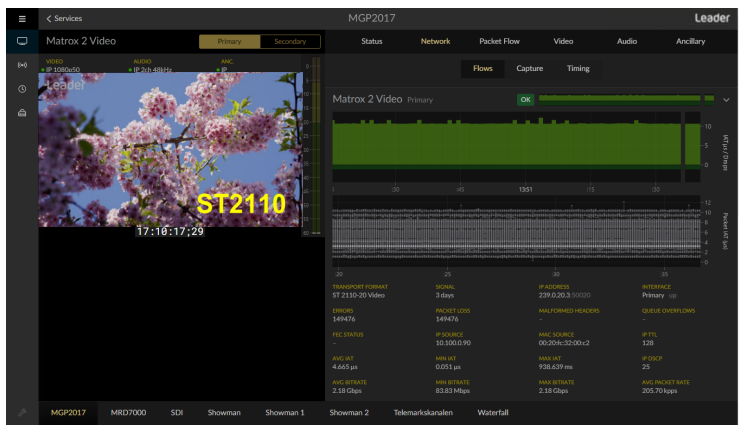


/ General

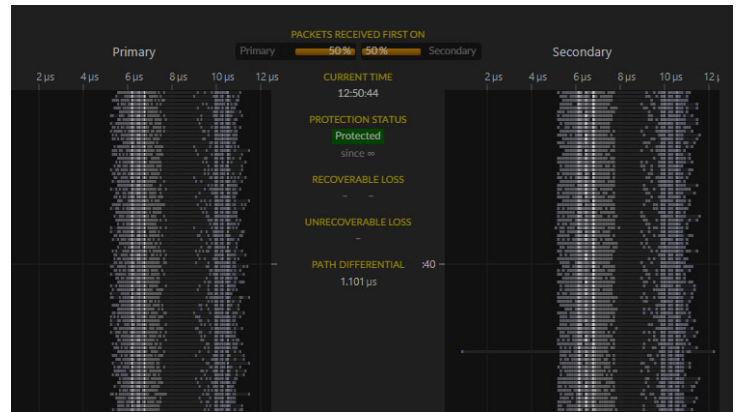
The LVB440 High Bit Rate IP Packet Monitor provides revolutionary monitoring and analysis capabilities for IP media traffic found in outside production, broadcast studios and master control centre's allowing for quick troubleshooting and quality improvement. The LVB440 supports ST2110, and ST2022-6 flows at dual 40 Gbps bitrate, and dual 60 Gbps with additional options. Streams from SD to 4K (UHD) can be monitored, with 8K monitoring configurations available. The LVB440 offers familiar visualization tools such as vector scope, picture monitor, audio pairs, and waveform monitor allowing broadcast and production crews to easily manage real-time analysis and troubleshooting of IP-based network audio and video streams. Packet analysis of uncompressed video and audio is available with microsecond accuracy. In addition, up to eight clients can view the analysis data in a standard web browser at the same time for simplified remote operation.

/ Features

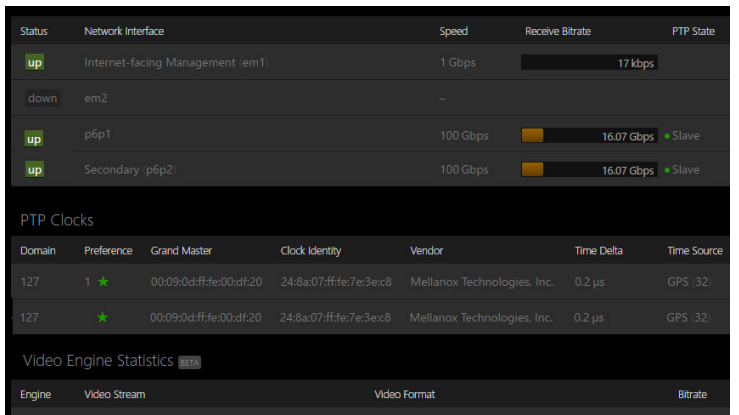
- 8 users can access the LVB440 simultaneously, remotely (via web browser / HTML5).
- Video can be confirmed with a minimum delay of 2 frames.
- ST2110 and ST2022-6 IP standard compatible.
- Supports dual SFP 10G, 25G, 40G, 100G.
- Dual 40 Gbps support; dual 60 Gbps analysis bandwidth with additional options.
- Check packet loss and jitter on both primary and secondary network lines.
- IP Jitter allows you to visualize changes in arrival time between two adjacent IP packets.
- Comprehensive error logging for up to 4 days, including packet loss.
- Check PTP lock status, grandmaster information, Clock Identity, time delay, ANC.
- Easily verify video stream available on the network.
- Various error settings such as freeze error, color freeze error, silence error, phase shift voice error FEC packet loss, RTP packet loss, synchronization error, etc. are possible.
- Multiple packets can be monitored at the same time.
- Primary and secondary video streams can be checked by simply alternating tabs.
- Network status history recorded and displayed graphically for ease of troubleshooting.
- NMOS compliant for simplified automation and integration.
- Video, audio, and ANC packet status can be verified at a glance.
- Key statistics and alarming available including.
- Video format, number of errors, bit rate, packet rate, angle of view, frame rate, and color system compatible standards.
- Video frame and packet capture function, up to 50 video frames and up to 10,000 packets.
- Measure primary and secondary packet delays.
- Visual alarm summaries.



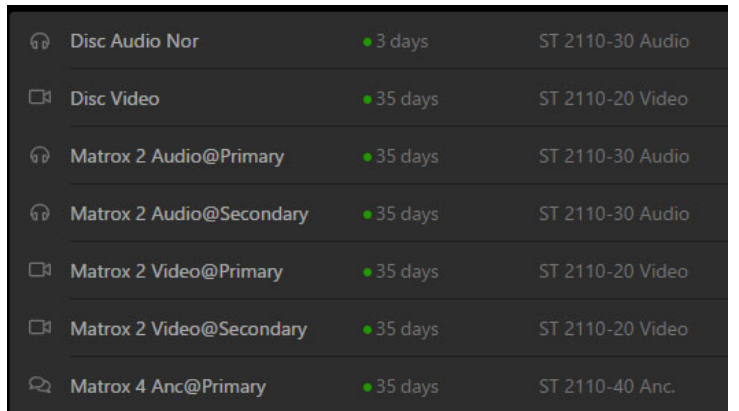
Monitor packets



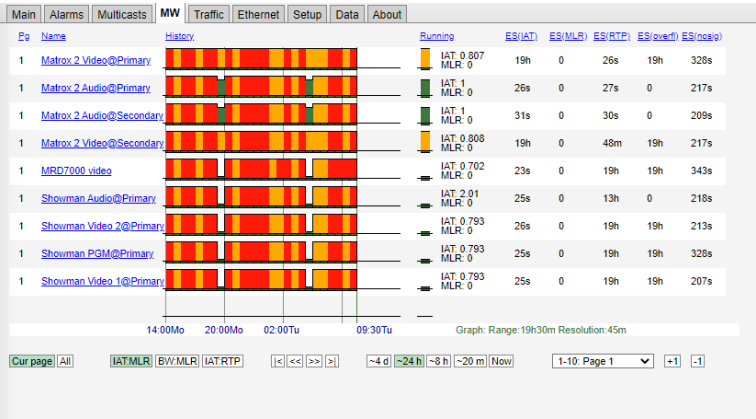
Packet loss and jitter on the primary and secondary flows in ST.2022-7 operation



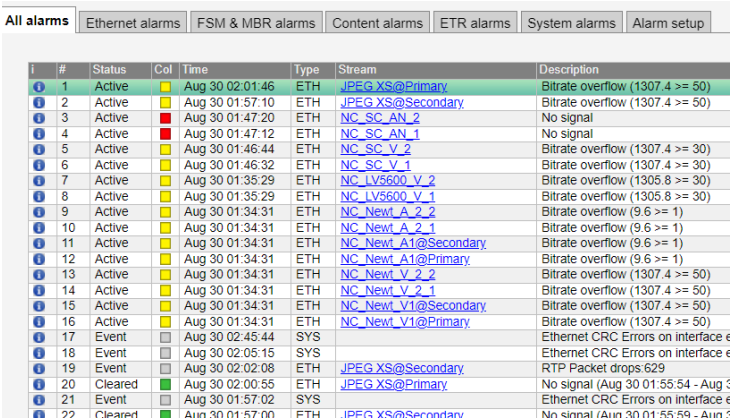
PTP lock status, grandmaster information, Clock Identity, time delay, ANC Information



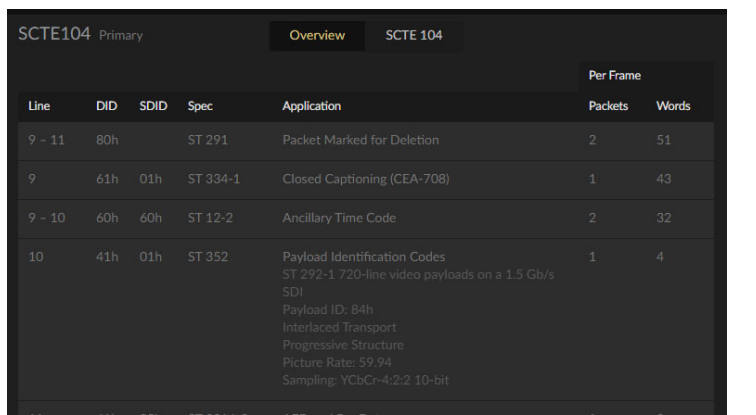
Flow displays



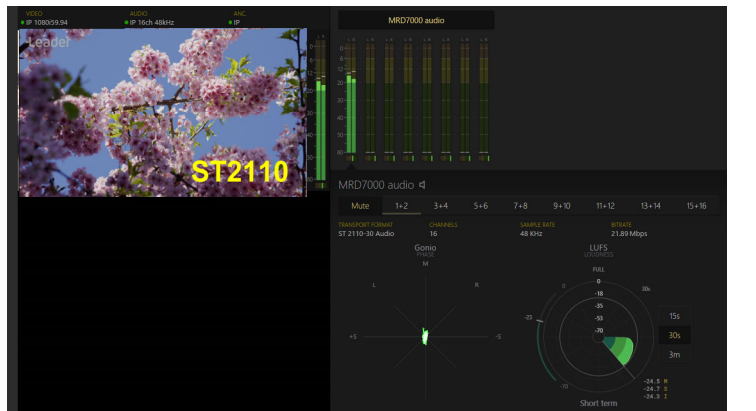
Display errors that occurred in chronological order



Error log



Ancillary Data and SCTE-104



Audio monitoring

Measurement Items

- RTP error average, minimum / maximum per flow
- Average CRC error, minimum / maximum per flow
- IAT average, minimum / maximum per flow
- Bitrate average, minimum / maximum per flow
- PTP delay average, minimum / maximum per flow
- Average packet rate
- DSCP QoS parameter settings per flow
- Packet TTL per flow

Corresponding standard

- ST 2110-20/21/30/31/40, ST 2022-6
- ST 2110-22 Compressed (option)
- ST 2022-7 Redundant stream via dual interface
- OP-47/SMPTE RDD 8, CEA 608/708 Subtitling
- PTP v2 SMPTE 2059 / IEEE 1588-2008
- NMOS IS-04/05/07 & 09

Monitoring band

- Monitoring bandwidth LVB440 standard
- Dual configuration PORT-A: 40G, PORT-B: 40G
- Single configuration PORT-A only: 40G
- Monitoring bandwidth LVB440 + 40G-OPT
- Dual configuration PORT-A: 60G, PORT-B: 60G
- Single configuration PORT-A only: 80G

Options

■ List of hardware options

Product Name	Product Description
LVB440	ST2110 and 2022-6 high performance monitor, 40Gbps data rate, (2) simultaneous instrument view (IV) users
LVB440-40Gbps-OPT	Additional 40Gbps analysis for 2x60Gbps or max of 80Gbps on one port
LVB440-JPEGXS-OPT	Adds JPEG XS compression analysis to LVB440
LVB440-IV-OPT	Additional (1) IV licence (add up to 6; 8 total max per LVB440)
LVB440-GEN5-OPT	Reference signal generation. One license enables 5 signals
LIV-KIT-1	19" 4RU iPad Pro mounting kit with PoE (Power over ethernet)
LIV-KIT-2	VESA gas arm iPad Pro kit with PoE (Arm and iPod Pro 11-inch model, not included)
LIV-KIT-3	TableTop iPad Pro kit with PoE (iPad Pro 11-inch model, not included)
LIV-KIT-4	Dual Panel 19" 4RU iPad Pro kit with PoE (Power over ethernet)
LVB-SW1	One year of software updates to LVB440
LVB-SW3	Three years of software updates to LVB440
LVB-SW5	Five years of software updates to LVB440
QSFP ADAPTER	QSFP Adapter for LVB440, or LV5600/LV7600/LV5600W/LV7600W (incl. with LV5600/LV7600 SER06 purchase)

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