VB440 IP PROBE WITH INSTRUMENT VIEW

BRIDGE TECHNOLOGIES™

The VB440 40 Gigabit IP probe provides a break-through for the monitoring and analysis of high-bitrate broadcast media traffic as defined in ST2110 and ST2022-6 for core broadcasting networks, production studios, master control centres and outside broadcast vehicles and venues.

It enables production teams to continuously survey all layers of media transportation on an IP network and facilitates quick rectification of potential problems, helping to maximise Quality of Service (QoS). The Instrument View Option, provides deep analytics displays for the VB440.

With support for interface speeds from 10, 25, 40, 50 and up to 100 Gigabit on dual interfaces, even the largest of media networks can be accommodated with analysis of SD, HD, HD HDR, 4K and 4K HDR and above. ST2022-7 redundancy is also monitored and analysed when connected to both primary and secondary networks. PTP is provided with ST2059-2 clock analysis, clock source detection/listing and clock accuracy and class, providing troubleshooting and continuous monitoring of this critical infrastructure in a production network – including accurate path-delay for individual flows.

With a production environment dominated by operations personnel and non-movable deadlines, enabling the total understanding of advanced connectivity with the use of advanced paradigms recognised by staff to give accurate and meaningful information on par with an audio meter or a waveform/vector-scope, utilized by the industry since the beginning of broadcast.

IP packet behaviour analytics is an essential real-time need when dealing with the modern infrastructures capable of transporting uncompressed ST2110 video and audio. Analytics providing single or multiple stream correlation will immediately reveal any potential critical factor of the transport with intuitive tools and displays. Errors, however minuscule, are displayed and severity can be easily judged by any operator. Media metadata and deep packet analytics data is also available when vendor interoperability and signalling integrity have to be established.

Also built in is traditional colourmetry, with a full vector-scope consisting of Rec.601, 709 and 2020 compatibility, thus ensuring colour saturation issues that can arise in a mixed standard and HDR (High Dynamic Range) environment. Also, the system provides audio metering and audio listening for 8 stereo pairs following the picture.

Any flow, or signal, on the network can be selected in the ´flow overview´ or services can be manually bonded into full services consisting of video, audio and ancillary data for easy selection in the ´service selection view´, or the fast access buttons in the lower edge of the gui. Great care has gone into making sure fast access to source selection, and keeping the context of the task, while viewing different signals.
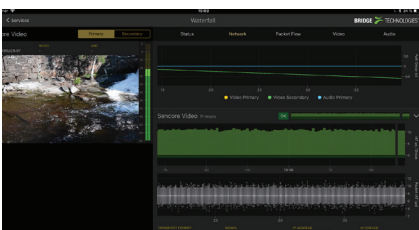
Real-time MediaWindow™ historics with accurate packet behaviourism together with video and audio monitoring.
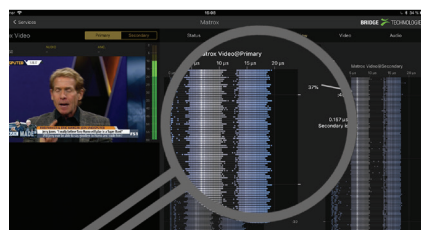
Unique PacketFlow analytics of latency on dual streams in a ST2022-7 redundancy configuration.
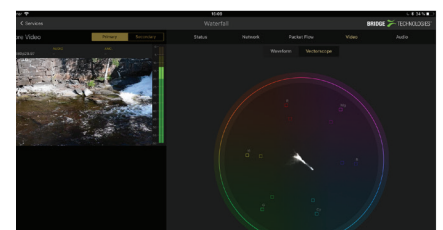
Waveform and Vector scope with Rec.601, 709 and 2020 colourspace compliance for SD, HD, 4K and HDR signal sources.

SUPPORTED STANDARDS

ST2022-6	SDIoIP, encapsulated SDI over IP
ST2022-7	Dual network parallel redundancy
ST2110-10/20/30/40	SMPTE suite of standards for uncompressed flows of Video, Audio and ancillary data.
PTP	IEEE1588, ST2059-2 (Multicast, Mixed SMPTE w/o negotiation)

CURRENT SUPPORTED VIDEO FORMATS

	FORMAT	COLOURSPACE	SAMPLE STRUCTURE	BITS	FRAMERATE
SD Standard Definition	525i	4:2:2	YCbCr	8/10	59.94
	625i	4:2:2	YCbCr	8/10	25/50
HD High Definition	1280*720	4:2:2	YCbCr	8/10	25/50/59.94/60
	1920*1080	4:2:2	YCbCr	8/10	25/50/59.94/60
UHD Ultra High Definition	3840*2160	4:2:2	YCbCr	8/10	25/50/60
		4:2:2	YCbCr	8/10	

CURRENT SUPPORTED AUDIO FORMATS

	SAMPLE RATE	BITS	DISCOVERY
AES67	44.1 KHz	24	SDP
	48 KHz	24	SDP
	96 KHz	24	SDP

Specifications:
– RTP Errors average, min/max per flow
– CRC Errors average, min/max per flow
– IAT average, min/max per flow
– Bitrate average, min/max per flow
– PTP delay average, min/max per flow
– Average Packet rate
– DSCP QoS parameter setting per flow
– Packet TTL per flow

Internet: www.bridgetech.tv