BV-1201V-H Video Verifier

HOSPITALITY/CPE VIDEO VERIFIER

Provides 24/7 assurance of QAM and IP video streams at key service provider demarcation points and edge network locations as well as feature-rich interactive troubleshooting tools

KEY FEATURES AND BENEFITS

Network-capable video verifier in CPE-styled hardware package

IP video and cable QAM video interfaces

24/7 real-time video stream monitoring and analysis

Full alarming and thresholding capabilities

Robust troubleshooting capabilities via browser-based GUI

Remote viewing of streams via IP interface for virtual truck roll visibility

Pro:Idiom®[a] embedded decryption technology for hospitality markets

a. Pro: Idiom is a registered trademark of Zenith Electronics Corporation.

VIDEO MONITORING AT THE NETWORK EDGE

When delivering video services across a variety of network elements, the challenge has always been to maintain a perfect stream quality from the origin to the consumer. Given the multitude of ways in which streaming video is now consumed, a consistent and systematic approach to measuring video service quality at the edge or demarcation point of the service provider's network has become an increasingly important strategy for providing high-quality video service. With automation and proactive assurance at the network edge, a reliable measure of the video services flowing through a service provider's network can increase the consumer's quality of experience (QoE) and reduce time to repair, given that issues inevitably arise in the network delivery of video services across IP and cable-based infrastructure.

The BV-1201V-H Video Verifier is the latest addition to EXFO's suite of service assurance solutions for monitoring IP and cable-based QAM video streams. The verifier brings new video stream decryption capabilities with Pro:Idiom technology along with network-class monitoring that is deployable at demarcation points at the service provider's network edge locations. The Pro:Idiom decryption platform is an important digital rights management technology that is being widely adopted by the hospitality industry. As an option on the BV-1201V-H, the platform brings new capabilities from a vendor-independent monitoring perspective, which allows for remote troubleshooting of the decrypted streams that enables thumbnails and full streams to be viewed for quality assurance purposes. For all IP and QAM video services (encrypted or not), the new verifier provides constant monitoring of video streams for proactive notification of issues detected while providing unique troubleshooting capabilities for interactive viewing of stream analysis as the service crosses important network edge or demarcation locations.

Even in its smaller CPE-styled physical packaging, the BV-1201V-H delivers a robust network view of the video services flowing through its IP and QAM interfaces. For the IP video streams, continuous monitoring of bandwidth, inter-arrival time between packets and RTP fields provide insightful KPIs for the quality of service (QoS) being delivered across the network edge location. Similarly, for the cable QAM interface, the RF tuner automatically cycles through pre-programmed frequencies to measure power level, signal-to-noise ratio and modulation error ratios that are key to delivering a quality video service at the transmission's physical level. With both IP and QAM transport mechanisms, an even deeper analysis of TR 101 290 priorities is performed on the streams with a reference stream comparison that goes beyond basic TR 101 290 priorities, if required. All the metrics provide robust threshold and alarming to proactively notify the service provider when the quality deviates beyond the expected norms—before the customer has to notify the service provider.

Whether responding to a service request, troubleshooting alarms or investigating unusual trends, the interactive tools of the small CPE-styled verifier rival those available in any larger network-oriented capability set. For IP and QAM video streams, pertinent graphs and counters provide operations engineers with an in-depth view of the stream characteristics, which makes it possible to quickly isolate any issues that are beginning to impact services. Graphs for inter-arrival time, bandwidth and RTP-based metrics allow for a quick comparison of the IP video stream to view trends in a specific stream or common issues among several streams. Constellation diagrams, along with key power and signal levels on the QAM interface, make it possible to quickly identify potential service issues as either being related to the physical network or to the origin of the video service. Common to IP and QAM video services, thumbnails and remote real-time viewing of an individual video stream are tremendously helpful tools for preventing truck rolls to specific demarcations at the network edge, and for providing the operations team with views of the service being delivered to that specific strategic network intersection.

An open API to extract monitoring data from the verifier rounds out the BV-1201V-H's capability set for meeting the needs of the ever-growing and critical video services delivered by service providers to their customers. These abilities, along with the flexibility of IP and QAM based interfaces in a single enclosure, are fused together in this verifier to make the investment in video stream assurance at the strategic network edge and CPE demarcation points a valued asset to the operations team.

EXFO

VERIFIER MODEL

BV-1201V-H Verifier base unit

› 1 – QAM 75 Ohm DVB-C single RF interface – ITU.T J83 Annex A/B/C

› 1 – 10/100/1000-T RJ45 data interface

› 1 – SFP GigE data interface

› 1 – 10/100/1000-T RJ45 management interface

Accessories

› Optional software licenses for IPTV, OTT and Pro:Idiom capabilities

› Optional 19-inch rackmount kit (for 1 or 2 verifiers per kit)

VERIFIER SPECIFICATIONS

Monitoring support

Interface

› 10/100/1000-T RJ45 data or SFP GigE data port

› 75 Ohm F-Connector ITU-T J.83 Annex A/B/C QAM cable port

Network management

› SNMP

SPECIFICATIONS

GENERAL SPECIFICATIONS

Size (H x W x D)	30 mm x 200 mm x 215 mm (1 1/5 in x 7 7/8 in x 8 1/2 in) Wall mount included in packaging
Weight	1 kg (2.2 lb)

POWER

External AC power supply

6 watts (peak power consumption)

ENVIRONMENT SPECIFICATIONS

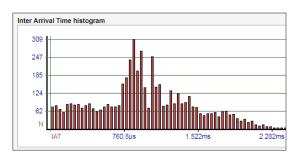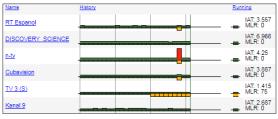|		
Temperature	Operating Storage	0 °C to 45 °C (32 °F to 113 °F) −45 °C to 70 °C (−49 °F to 158 °F)
Relative humidity	Operating Storage	8 % to 90 % non-condensing 5 % to 95 % non-condensing

CERTIFICATION/MARKING

cETLus, CE

SAFETY STANDARDS

IEC/EN/CSA/UL 60950-1

21 CFR 1040.10, IEC/EN 60825-1 (Class 1 laser product)

ELECTROMAGNETIC COMPATIBILITY

EN 55032, EN 55024, EN 61000-3-2, EN 6100-3-3, 47 CFR Part 15, ICES-003 (Class A)

EU DIRECTIVES

EMC Directive 2014/30/EU

Low Voltage Directive 2014/35/EU

RoHS Directive 2011/65/EU

WEEE Directive 2012/19/EU

ENVIRONMENTAL

China SJ/T11364

WEEE, RoHS

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