BV-2100V

10G VIDEO VERIFIER

High-capacity video verifier for monitoring TV multicasts, video on demand and Internet video in backbone networks and headends

KEY FEATURES AND BENEFITS

Monitors thousands of multicast TV streams for quality assurance

Compatible with EXFO Vision Live Monitoring server software

Video on demand (VOD), non-video traffic and microbursting detection and analysis (optional)

High-capacity real-time TR-101-290 analysis and alarming (optional)

High-capacity Internet video (OTT) analysis and alarming (optional)

Two physical 10G Ethernet ports (second port enabled by optional license)

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COMPREHENSIVE MULTICAST MONITORING FUNCTIONALITIES

The BV-2100V uses the same visual and intuitive approach to monitoring and analysis as other video verifiers. However, its 8-core CPU provides extreme processing capabilities, allowing the probe to perform large-scale monitoring in modern media infrastructures. The probe uses EXFO's renowned presentation techniques to provide easy-to-interpret GUIs that show important irregularities and stream history.

ADVANCED ETHERNET OPTION

The AEO adds sophisticated traffic monitoring features that support applications like video on demand (VOD). This includes traffic statistics based on user-configurable filters, enabling traffic breakdown according to detailed settings. VOD monitoring is one of many tasks supported by this functionality. This option also provides microbursting analysis, which helps network engineers detect ultra-short packet bursts. The AEO option also provides PCAP recording, which can prove invaluable when complex low-level errors need to be investigated.

BULK ETR-290 OPTION

This option adds the full, real-time ETSI TR 101 290 analysis of hundreds of streams, with the power to analyze more than 25 in parallel. The ETR analysis engine, which is used in in many systems worldwide, detects content-level issues and validates standards conformance in central headends and local insertion points.

BULK OTT OPTION

The option adds the monitoring and analysis of Internet-delivered video, also known as over-the-top (OTT). Popular formats including Microsoft SmoothStream, Apple HLS, Adobe HDS and MPEG-DASH are supported. The BV-2100V verifier has the power to analyze up to 500 OTT channels, 50 of them in real time. This option will check manifest files, profile presence and transmission times. When checks or measurements reveal errors that could lead to OTT system malfunction, alarms are raised.

BUILT-IN CONFIDENCE

When so much monitoring capacity is packed into one unit, redundancy becomes a serious issue. For this reason, the chassis used to house the BV-2100V includes a dual power supply, minimizing the risk of losing monitoring due to a power-supply failure. Furthermore, as with all EXFO Video Verifiers, dedicated Telco-grade hardware is used throughout, to ensure the longevity and stability needed for professional operation.

The power of confidence monitoring is further enhanced by continuous monitoring and alarming, bandwidth overflow/underflow and signal loss. With advanced threshold settings including error-seconds, alarm granularity can be set to useful standards. The unique FSM™ framework also checks and continuously monitors the middleware and network services that are vital to customer quality of experience (QoE).

The BV-2100V is part of an integrated EXFO Vision solution. It works seamlessly with EXFO Vision Live Monitoring software, BV-2000 and BV-1200 family of verifiers as well as the BV-2080 content extractor for powerful, cost-effective, end-to-end video-quality monitoring.

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STANDARD FEATURES

Advanced real-time IP protocol breakdown and analysis with individual bandwidth and frame-size display

Two SFP optical 10GB ports (second port requires optional license)

Transport stream into IP monitoring based on ETSI TS 102 034

Microsoft MediaRoom™ X-bit RTP header extension support

IGMPv2 and IGMPv3/SSM support

v802.1Q VLAN tagging support and detection

Thumbnail decoding of MPEG2 and MPEG4 streams, SD and HD

Packet jitter and media loss measurements

Configurable alarming including severity-level definitions

RTP dropped, duplicate and out-of-order measurements

Type of service (TOS) and time to live (TTL) display time-loss distance measurements (RFC3357)

MediaWindow™ visualization technology

FSM™ monitoring of middleware services (optional)

Alarm-triggered recording of a multicast/unicast or selectable service from any input

RDP™ of transport stream or selected service

Searchable alarm lists

Built-in web-based management with access control

Intuitive GUI for easy system overview including the MediaWindow™

Central management via EXFO Vision Live Monitoring server (sold separately)

IPv6-compliance for management

SNMP multi-destination trapping

API available for integration into any third-party OSS/NMS system

Compatible with Cisco™ VAMS/CMM/ROSA

NTP client functionality (RFC2030)

DHCP client support (RFC2131)

Remote software and license upgradeable

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ENVIRONMENT SPECIFICATIONS

Temperature
Operating   0 °C to 45 °C (32 °F to 113 °F)
Storage   −20 °C to 70 °C (−4 °F to 158 °F)

Operating humidity   5 % to 95 % non-condensing

POWER SUPPLY REQUIREMENTS

Power dissipated: 40 W per BV-2100V module

Input voltage: 100 to 240 VAC

Max. power requirement: 2 VA at 220 VAC

Max dissipated power: 150 W (maximum)

PLATFORM SPECIFICATIONS

Standard 1U 19-inch rackmount unit

Size (W x H x D): 483 mm x 43 mm x 400 mm (19 in x 1 $^{11}/_{16}$ in x 15 $^{3}/_{4}$ in)

Weight (fully populated): 8.2 kg (9.24 lbs)

Power supply: 100-240 VAC (model BV-V-AC) or −48 VDC
(model BV-V-DC)

CONNECTOR SPECIFICATIONS

10GE port A SFP+ module

10GE port B SFP+ module (requires optional license)

10/100/1000T management: RJ45

Initial setup: USB Type A

CONTROL AND MANAGEMENT

Basic setup/control through RS-232 via USB

Remote access through HTTP or Telnet

Control and data aggregation via EXFO Vision Live Monitoring software
(optional)

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