

BV-2000V

COMPLETE IP AND VIDEO SERVICE ASSURANCE MONITORING
FOR TELEVISION DELIVERY



SPEC SHEET

As part of a complete end-to-end system, this device monitors IPTV, cable, broadcast and satellite television delivery networks—from the headend to the home.

KEY FEATURES AND BENEFITS

Ideal for cable, IPTV, satellite and broadcast systems

Applicable from headend to in-network locations

Analysis and alarming on IP and MPEG video performance

Concurrent analysis of up to 260 IP streams and ASI

Transport stream (TS) monitoring into IP according to ETSI TS 102 034

ETR 290 video quality monitoring (optional)

Satellite, cable, broadcast and ASI RF input modules available (optional)

The BV-2000V is the flagship device for monitoring IPTV, cable, broadcast and satellite television delivery networks. It is part of a complete end-to-end system capable of monitoring quality from satellite input to the headend all the way through to the home.

The ability to continuously monitor 260 services makes the BV-2000V card just as powerful as its portable version, the BV-2000V. Despite its a small form factor, three BV-2000V cards can be housed in a one-inch rackmount unit, offering up to 780 channels. With full support for the MPEG2 TS standards carrying all modern codecs, the BV-2000V is perfect for headend and network core use. Thanks to the BV-2000V, fault-finding in complex television delivery networks just got a lot easier.

Critical parameters, such as detailed jitter values, give accurate readings of network performance. With the patented MediaWindow™, historical data can be easily accessed for a comprehensive visualization of media flow in IP networks. Whether you wish to establish or modify service settings on complex routers and switches, the BV-2000V will facilitate the entire process.

The power of confidence monitoring is further enhanced by the continuous monitoring and alarming of bandwidth overflow/underflow, real-time protocol (RTP) errors and signal loss. With advanced threshold settings that include error-seconds, alarm granularity can be set to useful standards, thus avoiding the flooding of alarm systems. The unique FSM™ framework allows the checking and continuous monitoring of middleware and network services vital to customer quality of experience (QoE).

The EXFO Vision Live Monitoring system, which is part of the EXFO Worx multiplay service assurance system, offers SNMP trapping and advanced alarm correlation and filtering for BV-2000V and all other video verifiers. EXFO Worx also offers open Northbound API with published MIB, allowing smooth integration with different operational support systems (OSS). EXFO Vision also provides access to verifiers to be able to configure and set threshold of the BV-2000V.

Management interface of the BV-2000V is a 10/100 Ethernet port (RJ-45). Basic setup is also achieved through the built-in USB to RS232 converter, eliminating the need for an external interface. This makes it easier to set IP addresses for access to the IP probe.

ADDITIONAL FEATURES

X-bit RTP header extension support as used by Microsoft IPTV system MediaRoom™

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

Type-of-service (ToS) and time-to-live (TTL) display

SNMP or XML export of real-time measurements

Individual severity level settings for alarm trapping

IGMP monitoring and logging

IGMPv2 and IGMPv3 SSM support

Full 802.1 Q VLAN tagging support/detection

PSI/SI table visualization

Jitter and media loss measurement

MediaWindow™ visualization technology

FSM™ monitoring of middleware services

Thumbnail decoding of MPEG2 and MPEG4 streams

Line-speed ASI measurements

NTP client functionality (RFC 2030)

DHCP client support (RFC 2131)

RTP dropped, duplicate and out-of-order measurements

Return data path (RDP) of IP multicasts monitored

RDP of ASI input (MPTS or SPTS)

Optional full ETSI TR 101 290 alarming and analysis with round-robin on all 260 services

ENVIRONMENT SPECIFICATIONS

Temperature	
operating	0 °C to 50 °C (32 °F to 122 °F)
storage	-20 °C to 70 °C (-4 °F to 158 °F)
Operating humidity	5 % to 95 % non-condensing

POWER SUPPLY REQUIREMENTS

Input voltage:	100 to 240 VAC or -48 VDC
Power required:	2+ VA, typical at 220 VAC
Power dissipated:	50 W (maximum)

PLATFORM SPECIFICATIONS ^a

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):	4.2 kg (9.24 lbs)
Power supply:	100-240 VAC (model BV-V-AC) or -48 VDC (model BV-V-DC)

OPTIONAL INPUT MODULES

Broadcast input module (DVB-T/COFDM):	BV-2050V
Cable input module (DVB-C/QAM):	BV-2060V/BV-2062V
Satellite input module (DVB-S and DVB-S2/QPSK):	BV-2070V
ASI Input module (6 ASI inputs, 2 active ports):	BV-2042V

Note

a. Platform sold separately

CONNECTORS SPECIFICATIONS

10/100/1000 Ethernet video:	RJ-45
10/100 Ethernet management:	RJ-45
Optical input:	SFP module
ASI input:	75 ohms BNC
Initial setup:	USB Type A connector

NETWORK SPECIFICATIONS

10/100/1000 BASE-T Ethernet (802.3u and 802.3ab)
SFP interface for optical networks
10/100 BASE-TX Ethernet management (802.3u)

CONTROL AND MANAGEMENT

Basic setup/control through RS232 via USB
Remote access through HTTP or Telnet
Optional control and data aggregation via EXFO Vision Live Monitoring Software

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