VB120 BROADCASTBLADE

bridge tech™

DVB Digital Video Broadcasting

BRIDGETECH products adhere to The Global Standard of Digital Television.

microETR™

Provides status-at-a-glance of large numbers of TR101290 services.

RDP™ RETURN DATA PATH

Return Data Path enables sourcing of the remote signal back to the NOC or HeadEnd for detailed analysis. Reduces OPEX through fewer truck rolls and on-site visits.

Eii EXTERNAL INTEGRATION INTERFACE

With Eii (External integration interface) all IP-Probes can be easily integrated into 3rd party NMS / OSS systems.

The VB120 BROADCAST PROBE is a blade based platform for continuous digital TV monitoring, its modular concept providing the flexibility needed for a cost-effective surveillance system tailor-made for each operator. System scalability in terms of monitoring capacity, signal formats handled and functionality ensures a future-proof solution, an invaluable asset in an ever changing world. The ability to continuously measure all your media services makes the VB120 invaluable for confidence monitoring, thus facilitating a more rapid network expansion.

The VB120 BROADCAST PROBE comprises a fully-fledged ETSI TR 101 290 monitoring engine used to monitor enabled inputs, one monitoring engine per input working in parallel. The basic VB120 monitors DVB ASI, IP monitoring is enabled through the IP Monitoring and Analysis option and RF inputs may be included by adding demodulator blades to the system. COFDM, QAM and QPSK DVB-S/S2 demodulators are available for use with the VB120.

Each Bridgetech ETSI TR 101 290 engine performs Priority 1, 2 and 3 measurements in addition to monitoring vital CA parameters, CA monitoring being of vital importance as CAS errors may lead to equally severe impairments as ETSI TR 101 290 Priority 1 errors. The monitoring engine may also be configured to check signal scrambling. PSI/SI and PSIP tables are analysed and presented as table summary and hex dump, the latter enabling analysis of proprietary descriptors. Bitrates are measured at TS, service and PID level, and the ETSI TR 101 290 engine also monitors RF parameters for optional demodulator inputs. Fully configurable round-robin functionality enables sequential monitoring of several transport streams per monitoring engine.

The innovative RDP technology (Return Data Path) is one of the advanced features of the basic VB120, enabling easy re-routing of remote signals from regional locations into a central location for decryption and advanced signal analysis. RDP reduces the need for truck rolls and otherwise necessary on-site visits by skilled and expensive engineers. The VB120 recording functionality allows alarm triggered recording from any enabled input.

The IP Monitoring and Analysis Option activates optical and electrical Gigabit Ethernet interfaces for connection to the video segment. The VB120 has been designed to support all modern encapsulation standards including ISO/IEC13818-1 Transport Streams and MFRTP. The VB120 continuously measures signal loss, packet loss and packet jitter for up to 10 IP multicasts, these vital parameters being presented through Bridgetech's own patented MediaWindow™. MediaWindow™ allows for current and historical data to be displayed in an intuitive and visual way for easy understanding of the media flows in an IP network.

Alarm handling is one of the main tasks of the VB120 BROADCAST PROBE, and all measurements are checked against user defined thresholds for alarm generation. A sophisticated threshold template system gives the user full alarm handling control at probe, TS, service and PID level, ensuring that only relevant alarms are displayed.

Management and control for the basic VB120 is available through a separate 10/100 Mbps Ethernet interface, the IP-enabled VB120 may alternatively be managed in-band through the GigE video interface. Standalone access is achieved through the use of a standard web browser, avoiding the need for a dedicated client application. With SNMP trapping and XML export the VB120 IP-PROBE is easily integrated into existing NMS systems either directly or through the optional VideoBRIDGE Controller (VBC).

The VB120 BROADCAST PROBE hardware is dedicated and built to telco-grade standards for maximum reliability and minimum maintenance. The VB120 is hosted in a 1RU 19" chassis, each 1"RU chassis capable of hosting up to 3 x VB120 modules, or any combination of the VB120 with COFDM (VB250), QAM (VB260) and QPSK DVB-S/S2 (VB270) interfaces.

FEATURES INCLUDE:

- 1x 10/100/1000T Mbps Ethernet ports
- 1x SFP GigE port
- 1x 10/100T Mbps Ethernet management port
- 1x ASI Input port and 1x ASI output port
- Built-in USB to RS232 converter
- Blade based hardware for use with rack mount chassis
- 3 selectable blades can be placed in one 1"RU chassis
- Chassis with built-in 100-240V AC or -48V DC power supply
- Optional demodulator blades supported (QAM, DVB-S/S2, COFDM)

- Full real-time ETSI TR 101 290 alarming and analysis (Pri 1, 2, 3) for 1 transport stream for each enabled input
- Configurable round-robin functionality for each ETSI TR 101 290 analysis engine
- Conforms to both DVB and ATSC specifications
- Table and descriptor parsing of PSI/SI and PSIP presented as table summary and full table breakdown (including hex dump)
- Bitrate monitoring and alarming (TS, service and PID level)
- Monitoring of vital CA parameters
- Compare view for comparison of transport streams and services across different interfaces
- Sophisticated threshold template system for detailed alarm handling control at transport stream, service and component level
- Monitoring of demodulator parameters (demodulator option)

- Alarm triggered recording of a multicast/unicast or selectable service from any enabled input
- RDP™ of transport stream or selected service from any enabled input

- Searchable alarm lists

- Built-in web-based management with access control
- Intuitive GUI using patented visualisation techniques for ease of system overview: microETR and MediaWindow (Ethernet option)
- Optional central management via VideoBridge Controller server
- SNMP multi-destination trapping
- Eii™ External Integration Interface for easy integration into any 3rd party OSS / NMS system
- Compatible with Cisco™ VAMS/CMM
- NTP client functionality (RFC2030)
- DHCP client support (RFC2131)

- Remote software and license upgradeable

ADVANCED OPTIONS ON PAGE 2

VB120 Technical specifications

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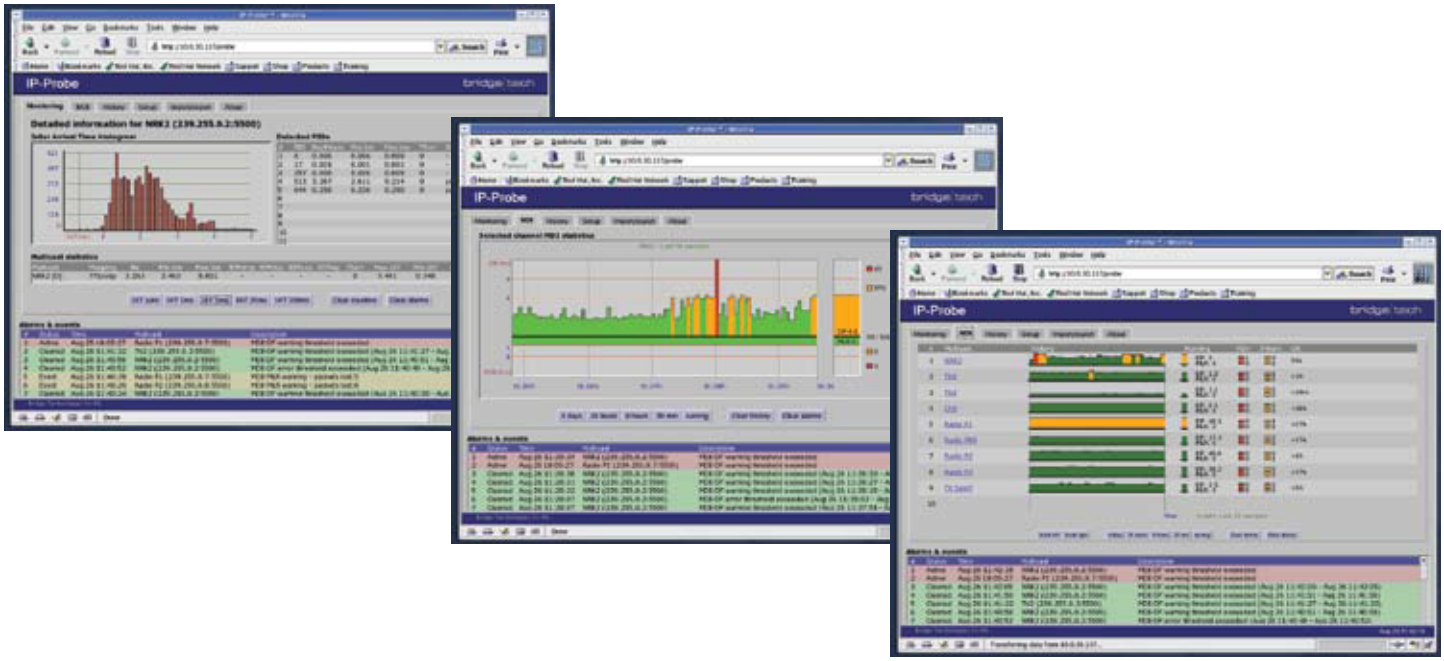

ENVIRONMENT SPECIFICATIONS:

Operating temperature:	0˚C to 50˚C
Storage temperature:	-20˚C to 70˚C
Operating humidity:	5% to 95% non-condensing

CONNECTOR 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

POWER SUPPLY REQUIREMENTS:

Input voltage:	100 to 240V AC
Power required:	2+ VA, typical @ 220V AC
Power dissipated:	Maximum 50W

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)

MECHANICAL SPECIFICATIONS:

Standard 19" 1RU rack-mount
W x H x D: 483 x 43 x 400 mm
Weight: 4,2 kg fully populated

IP MONITORING AND ANALYSIS OPTION

- Real-time monitoring of 10 multicasts/unicasts
- Monitors Transport Stream into IP according to ETSI TS 102 034
- Microsoft MediaRoom™ X-bit RTP header extension support
- IGMPv2 and IGMPv3 SSM support
- 802.1Q VLAN tagging support and detection
- Thumbnail decoding of MPEG2 and MPEG4 streams, SD and HD
- Packet jitter and media loss measurements
- Configurable alarm handling including severity level definitions
- RTP dropped, duplicate and out-of-order measurements
- Type of Service (TOS) and Time to Live (TTL) displaying
- Time loss distance measurements (RFC3357)
- MediaWindow™ visualisation technology

ADVANCED ETHERNET TOOLS OPTION

- FSM™ monitoring of middleware services
- IGMP monitoring and logging
- Advanced real-time IP protocol breakdown and analysis with individual bandwidth and frame size displaying

ADDITIONAL ETSI TR 101 290 MONITORING ENGINE OPTION

- Full real-time ETSI TR 101 290 alarming and analysis (Pri 1, 2, 3) for additional Ethernet transport streams

COMPLIANCE:
CE-marked in accordance to low voltage directive (LVC) 73/23/EEC and EMC directive 89/336/EEC. Compliant to requirements for US and Canada. Designed for CSA approval.

BRIDGE TECHNOLOGIES Co AS continuously improves on products and reserves the right to modify the specifications without prior notice.

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