VB220 ATV

1RU & 4RU Card

The ATV-220 PROBE is similar to the flagship VB220 controller blade for all applications in any network where digital video is carried across an IP infrastructure. Built with a form factor for deployment in Appear TV´s range of chassis, the ATV-220 provides an unique capability of reducing the infrastructure needs in any HeadEnd or remote location. Available for Appear TV's 4RU and 1RU chassis (XC-Series), the ATV-220 offers a highly-developed efficient solution for digital media monitoring either as part of a complete monitoring system, or when used with third-party network management systems. Embodying a range of market-leading technologies the ATV-220 gives engineers a complete and detailed view into the data stream.

Technologies

Bridge Technologies options are designed to enhance the overall ability and performance of accurate monitoring in the broadcast environment

Click below to learn more about compatible technology options:

Eii™ ETR290™ FSM Gold TS MediaWindow™ microETR™ OTT RDP

Environmental

Eurovironment RoHS WEEE

Chassis Options

ATV

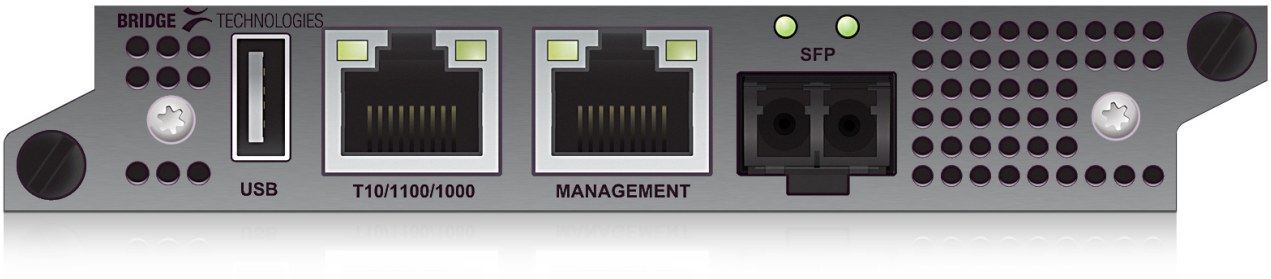
Overview

“Accurate and timely monitoring information is essential for any digital media operation, so a form factor that makes it easy to integrate Bridge Technologies probes into our installations is very welcome,” said Carl Walter Holst, CEO of Appear TV.

The ATV-220 can, as the standard VB220, be specified to order with all the options available in the comprehensive Bridge Technologies product line such as: up to 8 advanced ETR290 engines for detailed analysis and Gold TS Protection for media streams; up to 5 OTT engines for analysis and continuous monitoring of manifest and playlist syntax, DVB-T2MI parsing and alarming; optional second GigaBit interface and full SCTE-35 signaling analysis.

All these options in addition to the standard features of 260 streams monitoring, the built-in Eii (External integration interface), and the award winning web GUI of the device.

The ability to monitor continuously 260 streams makes the ATV-220 blade a powerful tool. With full support for both the MPEG-2 TS and RTP encapsulation standards carrying all modern coding formats, the ATV-220 is perfect for network core or regional site use.



This can be an invaluable remote helpmate for any network engineer attempting multicast detection on multiple VLANs or in the process of IGMP tracking. Fault finding in complex IP based broadcast networks just got a lot easier.

The monitoring of critical parameters such as loss distance measurements and detailed jitter values will give operators invaluable and precise feedback of network performance. With the patented MediaWindow™ historical data can be easily accessed for meaningful visualisation of media flow in IP systems. Whether establishing or modifying service settings on complex routers and switches, the ATV-220 facilitates the whole process.

The power of confidence monitoring is further enhanced by continuous monitoring and alarming for vital parameters like bandwidth overflow/underflow, RTP errors and signal loss. Based on a highly sophisticated threshold template system alarm granularity can be set to reflect actual status, irrelevant alarms being effectively masked. The unique FSM™ framework also allows checking and continuous monitoring of middleware and network services vital to customer QoE.

The ATV-220 takes up only one slot in an Appear TV chassis, resulting in a very compact monitoring solution particularly suited for systems that use IP distribution to regional nodes. The ATV-220 monitors IP via it´s optical and electrical 10/100/1000T Ethernet interface for simultaneous monitoring, enabling a unique service comparison mechanism that makes it easy to validate correct local insertion at regional head-ends.

SNMP trapping and XML export enable the ATV-220 to be implemented in any NMS system with alarm generation; either directly from the probes themselves, or via the VBC server for advanced alarm correlation and filtering. Each ATV-220 contains the Eii (External Integration Interface) API for seamless and easy integration into any 3rd party system.

Each ATV-220 runs a HTTP server with the client as a web browser, so no need to install custom software on computers needing access to the measurement data. Modern web 2.0 techniques such as AJAX are used to facilitate advanced interface behaviour in a standard web browser.

Tech Features

DIGITAL MEDIA MONITORING PROBE FOR APPEAR TV INSTALLATIONS

- 1x SFP GigE port
- 1x 10/100/1000T Ethernet management port
- Built-in USB to RS232 converter with USB A connector
- Blade based hardware for use with Appear TV rack mount chassis types – 1RU and 4RU (XC-Series)
- Stream selection allows large thumbnail and audio level bar displaying for one service from any input
- FLASH32-OPT Flash Storage 32GB Option. Factory ordered only – requires v5.1 sw
- Real-time monitoring of 260 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 MPEG-2 and MPEG-4 streams, SD and HD
- RTP dropped, duplicate and out-of-order measurements
- Type of Service (TOS) and Time to Live (TTL) displaying
- Time loss distance measurements (RFC3357)
- FEC analysis (COP3)
- MediaWindow™ visualisation technology
- FSM™ monitoring of middleware services
- IGMP monitoring and logging
- Advanced real-time IP protocol breakdown and analysis with individual bandwidth and frame size displaying
- Alarm triggered recording of a multicast/unicast or selectable service from any input
- RDP™ of transport stream or selected service from any input
- Searchable alarm lists
- Built-in web-based management with access control

- Intuitive GUI using patented visualisation techniques for ease of system overview: MediaWindow and microETR (ETR290 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 Skyline Dataminer, Cisco™ VAMS/CMM, Ericsson nCompass and more
- NTP client functionality (RFC2030)
- DHCP client support (RFC2131)
- Gold TS Protection™
- Remote software and license upgradeable

ETSI TR 101 290 OPTION FUNCTIONALITY

- Full real-time ETSI TR 101 290 alarming and analysis (Pri 1, 2, 3), one transport stream per input monitored in parallel
- 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)
- EPG analysis (EIT p/f and schedule)
- 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)
- Scheduled alarm masking

Software Options

ETR290 (ETSI TR 101 290)-OPTION (Included)

The ETSI TR 101 290 functionality is included as standard on the VB120. ETR290 also available as an option on the VB220. Full analysis is performed on Ethernet, ASI, COFDM, QAM, DVB-S/S2 QPSK and signals according to the industry standard ETSI TR 101 290. Multiple analysis engines are available as an option for Ethernet, allowing real-time ETSI TR 101 290 analysis for Ethernet transport streams in parallel. The Bridge Technologies implementation provides operators with unparalleled input signal visibility. The probes can detect and trigger alarms for many of the common errors that would normally go unnoticed by conventional monitoring systems.

BULK-ETR290 (ETSI TR 101 290)-OPTION

The ETSI TR 101 290 functionality is included as standard on the VB120. ETR290 also available as an option on the VB220 and VB330. Full analysis is performed on Ethernet, ASI, COFDM, QAM, DVB-S/S2 QPSK and signals according to the industry standard ETSI TR 101 290. Multiple analysis engines are available as an option for Ethernet, allowing real-time ETSI TR 101 290 analysis for Ethernet transport streams in parallel.

Learn more: ETR290 and BULK ETR290

OTT ENGINE-OPTION

The use of OTT technologies like variable bit rate HLS, SmoothStream and HDS for distribution of media to all kinds of receiving platforms is rapidly expanding, portable devices used in multiscreen applications being particularly important for OTT deployment to be a preferred method for media signal delivery. Content distribution using OTT is complex, and it is necessary for a service provider to perform continuous surveillance of signal availability and integrity of both LIVE multi-profile streams and VOD content. The OTT Option provides the same paradigms as more traditional media transports enabling easy understanding of complex media transportation where operators have both traditional and new distribution systems. The OTT options, available for all Bridge Technologies probes, enables monitoring and analysis of HLS, SmoothStream, HDS and MPEG-DASH streams. The OTT engine will check that stream and profile manifest files, the «lists of contents», are syntactically correct and updated, that all stream profiles are available and that stream chunks are delivered on time.

Learn more: OTT and BULK OTT

T2MI-OPTION

The T2MI-OPT applies only to the management board (VB120 & VB220).
The T2MI option is used to enable analysis of inner streams in DVB-T2 distribution systems utilising T2MI functionality. Stream verification is based on the renowned Bridge Technologies ETSI TS 101 290 analysis engine, and the T2MI enabled probe allows a thorough check of outer and inner streams. The T2MI option makes it possible to design and implement an end-to-end monitoring system for DVB-T2 distribution. The T2MI option extends ETSI TS 101 290 analysis functionality of a Bridge Technologies probe to include inner streams in DVB-T2 distribution systems where T2MI functionality is used. The T2MI stream-in-stream concept opens for simplified local insertion and is increasingly being used in DVB-T2 distribution. Monitoring of signal integrity is essential, and the T2MI probe option makes it possible to check inner stream parameters, like T2 timestamps and L1 information. Measurements are performed real-time in accordance with DVB document A14-1.

Learn more: T2MI

EXTRACTOR-OPTION

The extractor option is for Content extraction that includes; freeze/black/colour frame alarming, audio loss alarming for one service only typically where RF interface cards is used for round-robin checking of multiple frequencies.

Learn more: TBA

SCTE35-OPTION

SCTE35 is a specification which allows equipment to splice in local content at specific times. SCTE35 is the signalling mechanism the equipment uses to know when to switch from the master transmission to insert local content and when to switch back. SCTE35 is used for two different reasons: In USA it is used to insert local advertising. It's quite common that local Cable TV companies redistribute satellite channels in their network. They can purchase the right to replace some of the country-wide advertising with local ads. In Europe it is used to insert local TV programs, e.g. local news transmissions. SCTE35 analysis requires a special license for the probes and is connected to the ETR290 engine. All streams where ETR290 monitoring are performed simultaneously can be SCTE35 monitored in parallel, i.e. this is a reason for buying VB330 if many SCTE35 streams are to be monitored in parallel. GUI: From the ETR 290 main tab a list of streams containing SCTE35 signalling are displayed under the SCTE 35 tab.

Learn more: SCTE35

FLASH32-OPTION

The Flash32 feature is used as an added 32GB SD card, to be able to save RDP and PCAP recordings. RDP recordings are automatically moved to the SD card when completed, and PCAP recordings can be manually moved using the interface GUI as shown below. When in the storage tab, file system statistics are shown to the right and files can be downloaded by clicking its name.

Learn more: FLASH32

Ordering Codes

ATV1-220 – IP-Probe blade for AppearTV 1ru Chassis w/Gbit electrical/optical inputs

ATV4-220 – IP-Probe blade for AppearTV 4ru Chassis w/Gbit electrical/optical inputs

PRODUCT ORDERING CODES SOFTWARE

VB2G2-OPT – Second 1GBit DATA interface Option. License factory ordered – requires sw v5.1 or later

VB2G2-UPGR – Second 1GBit DATA interface Option. License upgrade – requires sw v5.1 or later

ETR290-OPT – ETSI TR 101 290. Licence for VB220 factory ordered

ETR290-UPGR – ETSI TR 101 290. Upgrade licence VB220

T2MI-OPT – DVB-T2MI Encapsulation Synchronisation monitoring option, factory ordered

T2MI-UPGR – DVB-T2MI Encapsulation Synchronisation monitoring option

OTT-ENG-OPT – 1 engine w/active testing of 1 channel or 10 channels round robin (up to 5 engines or 50 channels round robin in total) Factory ordered. Disables TS Recording if HW1 – HW3

OTT-ENG-UPGR – 1 engine w/active testing of 1 channel or 10 channels round robin (up to 5 engines or 50 channels round robin in total). Disables TS Recording if HW1 – HW3

EXTRACT-OPT – Content Extraction and Alarming Option – factory ordered – requires v5 sw

EXTRACT-UPGR – Content Extraction and Alarming Option – requires v5 sw, upgrade

SCTE35-OPT – SCTE35 Signaling Analysis and Logging. Licence for VB2 series factory ordered – requires v5 sw and ETR Engine

SCTE-UPGR – SCTE35 Signaling Analysis and Logging. Upgrade licence for VB2 series – requires v5 sw and ETR Engine

FLASH32-OPT – Flash Storage 32GB Option. Factory ordered only – requires v5.1 sw

BRIDGE TECHNOLOGIES™

Documentation

User Manual – Download

Quick Start Guide – Download

Related Products

VB220

IP NETWORK PROBE