

Receive. Decode. Transcode. Modulate

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MRD 5800 – Advanced Modular Decoder

The flagship MRD 5800 Advanced Modular Receiver continues Sencore's long history of leadership in the receiver/decoder space. The product boasts a full complement of cutting-edge features, including 4:2:2 H.264 8bit/10bit decoding, up to 8 individual audio PIDs, 16/32APSK satellite demodulation, and 1080p60 video support with 3G-SDI output. All decoding and output formats are upgradable in the field via software license, so the receiver can grow as needs evolve. This feature set makes the MRD 5800 the ideal choice for contribution reception or demanding distribution applications which require a future-proof set of specifications.

Every 5800 ships with a full complement of basic inputs and outputs built-in, including ASI input and output and dual SD/HD/3G-SDI outputs. The digital video output means that video monitoring is as easy as finding the nearest consumer television or PC monitor, and available factory-configurable MPEG over IP I/O and DVB-S2 modules adapt the product to any use case.

The receiver also maintains Sencore's long tradition of ease of use, with a straight-forward web interface accessible via all major browsers and complete control of the unit via the front panel keypad, and is backed by Sencore's best-in-class staff of ProCare support engineers.

MRD 4400 – Modular Receiver Decoder

The new MRD 4400 Receiver Decoder is the latest in Sencore's long line of professional integrated receiver/decoders for distribution and monitoring applications. Latest-generation components ensure that the 4400 provides the most complete feature set and the best value for a broad swath of common receiver/decoder applications. The product supports decoding of SD or HD video, encoded as either MPEG-2 or H.264, as well as up to four audio services.

The additional audio handling capability makes the MRD 4400 the perfect solution for video distributors looking to meet upcoming descriptive video requirements, while continuing to support surround, stereo, and SAP services. As customer demands evolve, units purchased for SD decoding can be upgraded to HD via a simple software license, and with the included digital video output, video monitoring is as easy as finding the nearest standard consumer television or PC monitor.

With built-in ASI input/output capability, as well as available satellite and IP interfaces, the 4400 is adaptable to most decoder use cases. The receiver also maintains Sencore's long tradition of ease of use, with a web interface accessible via all major browsers and complete control of the unit via the front panel keypad, and is backed by Sencore's best-in-class ProCare support.



- Inputs 4xDVB-S/S2 QPSK/8PSK/16/32APSK
- Input/Output 1x ASI 250 Kbps 200 Mbps
 Input/Output 2x IP RJ45, 10/100/1000
- Video output
- · 2 x SD/HD/3G-SDI
- · 1 x HDMI
- · 1 x composite (NTSC, PAL-B/G/I/D/M/N)
- Video MPEG-2/H.264, HD/SD
 SD 4:2:2/4:2:0
 HD 4:2:0/4:2:2
- Formats
 - · 1920x1080p; 1920x1080i; 1280x720p; 720x576i; 720x480i

- Supported audio codecs:
 Dolby Digital (AC-3) & Plus (EAC-3)
 AAC-LC, HE-AAC, & HE-AACv2
 MPEG-1L2 & MPEG-2L2
- · Linear PCM & Dolby E (Pass-through)
- Audio outputs
- \cdot AES 8x 75 Ω BNC
- · Analog 2x 15 pin D-Sub 4x XLR; 4x BNC · Embedded audio in SDI– 8 audio pairs
- Multiservice descrambling
- BISS Mode 1, Mode E, Injected ID
- Management HTTP; SNMP



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- Video—MPEG-2/H.264, HD/SD
- · SD 4:2:2/4:2:0 · HD 4:2:0/4:2:2
- Formats
- 1920x1080p; 1920x1080i; 1280x720p;
 720x576i; 720x480i

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MRD 2600 – Modular Receiver

The MRD 2600 receiver shares the professional-grade front-end collection from Sencore's newest decoder designs, but removes the baseband video and audio components. This makes it a cost-effective solution for single-transponder, multi-service descrambling or single channel digital turnaround applications.

With available satellite, terrestrial (8VSB), ASI, and IP input modules, in conjunction with dual-CAM DVB-CI and BISS descrambling, the MRD 2600 is ideally suited for transport stream input/ output. The product is a perfect to feed internal IP distribution or front transcode infrastructure which is missing critical RF interfaces, especially where density is not a key requirement.

The MRD 2600 provides a wide range of control options, including full configuration and status through the front panel and a clean, easy-to-use web GUI. It also features a full SNMP interface, including configurable traps on alarms for easy integration into an control system, and as with all Sencore products, Sencore's professional support team is just a phone call away in the unlikely event that questions should arise.



Inputs - 4xDVB-S/S2 QPSK/8PSK/16/32APSK
Input/Output - 1x ASI - 250 Kbps - 200 Mbps

- Input/Output 2x IP RJ45, 10/100/1000
- Multiservice descrambling

- 2x DVB-Cl interface 100 Mbit/s
- BISS Mode 1, Mode E, Injected ID
- Up to 12 independent keys BISS
- Management HTTP; SNMP

AG 5800 – openGear® Module Advanced Receiver Decoder Card

The AG 5800 card-based receiver decoder provides an ideal solution for 4:2:2 video decoding where rack space is limited. The platform supports up to 10 decoder cards in the industry-standard 2RU openGear® OG-3 chassis.

With independent per-card GUIs and a full-featured satellite input with BISS and DVB-CI descrambling, the decoder is uniquely suited for applications in master control or occasional downlink facilities. Support for all MPEG-4 and MPEG-2 formats up to 10-bit 422 AVC, up to 16 audio channels in any common format, and tested interoperability with all major encoder vendors mean this is the last contribution decoder you'll ever need.

The AG 5800 is also a future-proof solution for multichannel primary distribution where video quality is at a premium. With the ability to upgrade to 4:2:2 or 1080p50/60 decoding in the future via a simple software license, the card is a safe choice for the long haul.

Add Sencore's tradition of receiver decoder design and best-in-class ProCare support, and the AG 5800 provides the most compelling value package in the industry.





AG 4400 – openGear® Module Receiver Decoder Card

The new AG 4400 card-based receiver decoder provides an ideal solution for high-quality video decoding where rack space is at a premium. The platform supports up to 10 H.264/ MPEG2 decoder cards in a 2RU OG-3 frame.

The product supports decoding MPEG2 or H.264 video, as well as up to four audio PIDs. The audio decoding capability is the perfect solution for video distributors looking to meet upcoming descriptive video requirements, while continuing to support surround, stereo, and SAP services.

The AG 4400 receiver decoder card offers satellite, IP, ASI and 8VSB/QAM-B inputs for flexible installation into a variety of video delivery systems. Optional integrated DVB-CI descrambling, as well as BISS-1/E capabilities, makes the AG 4400 a powerful solution for receiving feeds from primary distribution.

When combined with versatile IP input/output capabilities, a full complement of ancillary data support, and tested interoperability with all major encode vendors, the AG 4400 is an ideal solution for high-density re-encode or monitoring.

In addition, the decoder benefits from Sencore's tradition of receiver decoder design and is backed by best-in-class ProCare support.

AG 2600 – openGear® Module Receiver Card

The AG 2600 receiver card leverages the DVB-S2, IP, dual DVB-CI, and ASI designs from Sencore's newest receiver decoder cards to provide a cost effective multi-channel reception and descrambling platform.

The card integrates into the industry-standard 2RU openGear® OG-3 frame, supporting up to 10 receiver/descrambler pairs per chassis. The AG 2600 is also configurable without the DVB-CI option, and with an optional BISS descrambling support, so it can be matched to any reception infrastructure.

The product is ideal for providing satellite or terrestrial feeds for IP network distribution or integrated transcode infrastructure. Optional PID filtering on the IP output can generate up to 10 MPTS or SPTS outputs from an MPTS input.

Finally, the receiver can be configured with ASI and IP interfaces only for simple turn-around, descrambling, and filtering operations.

Hot swappable cards provide for effortless system expansion, while full SNMP and syslog interfaces and an HTTP-based API support quick and easy integration into multichannel systems. For individual operators, the product features an easy to use web GUI that will be immediately familiar to users of previous Sencore IRDs.







TXS3600 – Multichannel Video/Audio Transcoder

The TXS 3600 is a Multichannel Video and Audio Transcoder which provides a powerful processing engine for linear broadcast transcoding.

Supporting MPEG transport stream inputs and outputs, the product can be configured to transcode up to sixteen PIDs of MPEG2 or H.264 video in a 1RU form factor, along with up to four audio PIDs per video PID.

The TXS uses Sencore's state of the art video compression techniques to achieve low bitrates and high picture guality. In addition, it provides a wide array of audio codecs which allow decoding and re-encoding to common broadcast formats. The combined solution rivals costly single-channel encoders in both value and performance.

The hardware can be configured and licensed to provide maximum value in any use case, from a single-channel per box up to sixteen channels.

The TXS 3600 carries forward Sencore's tradition of Ease of Use, providing an intuitive web GUI for unit control and status. It also supports full control through SNMP and a web services API.

DMG 1200 – IP/ASI Transport Stream Gateway

The DMG 1200 family is a series of high-density transport stream gateways for IP and ASI applications. Featuring up to four gigabit Ethernet interfaces and sixteen ASI ports, the DMG 1200 family is ideal for solving the interconnection problems operators face in today's evolving video delivery environment.



- Transcoding and transrating to 16 video sharing
- Support MPEG-2/H.264 SD/HD
- Transcoding MPEG-2->H.264, H.264->MPEG-2, H.264->H.264, MPEG-2->MPEG-2
- Video formats: · HD - 1080i, HD 1080p, HD 720p

· HTTP, SNMP

- · SD 576i, 480i
- · Web, Mobile, IPTV PiP @ 29.97Hz · Web, Mobile, IPTV PiP @ 25Hz

- Transcoding to 4 audio streams (video)
- Audio Formats HE-AAC v1/2, AAC-LC, Dolby Digital (AC3) or Plus (EAC3), MPEG-2, Linear PCM
- Inputs ASI, IP (SPTS, MPTS)
- Outputs ASI, IP (SPTS)
- Redundant power supply







DTU-238 - DVB-T/T2, DVB-C, ASI USB Probe

The DTU-238 RF Probe and RFXpert software are a comprehensive solution designed to provide realtime analysis and monitoring of terrestrial and cable signals (DVB-T/T2 and DVB-C RF channels). The RFXpert software is intended to be loaded by the end-user on a PC or laptop and work in conjunction with the DTU-238 RF Probe. RFXpert provides complete RF analysis and logging, along with transport stream recording.

RFXpert provides easy-to-read spectral displays, both constellation and eye diagram displays, and the ability to see rotated DVB-T2 constellations in their true orientation.

- True demodulated digital reading for MER, Pre-BER and Post BER.
- A proof-positive method of signal documentation or drop-point comparisons with programmable, user defined logging and auto-inspection capabilities

Adding StreamXpert to a DTU-238 makes for a cost-effective and user-friendly MPEG2/H.264 transport stream analyzer. Signals can be analyzed from either the ASI or RF inputs of the DTU-238 and can be validated against industry standard ETR101-290 templates. Transport streams can also be captured in the field with StreamXpert for later use.

- Real-time analysis, monitoring and recording of MPEG Transport Streams
- PCR Accuracy and ETR101-290 checking
- Integrated MPEG2/H.264/VC-1 video decoding with MPEG, AAC and AC3 audio support

TSM 1770 - Transport Stream Monitor

The TSM 1770 Transport Stream Monitor enables engineers to monitor compressed audio, video, and data services on any terrestrial broadcast, cable head-end, satellite, or telco network. With full support for ASI, SMPTE310M, 8VSB, QAM, and Ethernet physical inputs, it provides detailed transport stream and physical layer monitoring for complete system confidence.

Using a multi-layer approach, the TSM 1770 reports the transport stream status on the physical layer, protocol, and audio/video levels. It also monitors quality of service parameters in an easy-to-understand manner, enabling even non- MPEG experts to make accurate decisions and maximize service availability.

To ease the challenges of relating transport stream errors with actual signal degradations, the TSM 1770 presents information using straight-forward thumbnails, audio and video alarms, closed caption decoding, along with a reconstructed program guide. With these intuitive displays, any user can have the right tool to check and understand the impact of any error. For even greater levels of detail, an MPEG expert can connect to the TSM 1770 and view table syntax, monitor for TR 101 290 and ATSC A/78 errors, access error logs, and make stream recordings.







CMA 1820 - Compressed Media Analyzer

The CMA 1820 is the ideal solution for compressed media in-depth analysis and encoding compliance. It enables designers, engineers, system integrators, and network operators to quickly and easily verify standards compliance, identify media interoperability issues, develop products around new CODECs, and troubleshoot transmission issues.

With full support for HEVC/H.265, H.264, MPEG2, and VC-1 video along with AC-3, AAC, and MPEG audio, the CMA 1820 is well-suited for use with all contemporary broadcast equipment. Enhanced options such as closed caption subtitle, SCTE35-DPI and PTS/DTS alignment analysis can provide even more benefit to the demanding user.

Whether it is used in conjunction with other Sencore analysis and monitoring equipment or on the laptop of a mobile professional, the CMA 1820 is the perfect tool for use with all next-generation digital video networks.



MSA 1850 - MPEG Service Analyzer

The MSA 1850 MPEG Service Analyzer enables engineers to analyze compressed audio, video, and data services on any terrestrial broadcast, cable head-end, satellite, or telco network. To ensure that operators always have the right physical inputs, the MSA 1850 comes standard with ASI, SMPTE310M, 8-VSB, QAM, and Ethernet connections. It provides detailed transport stream and physical layer analysis for complete system confidence all in a field-ready, ruggedized chassis.

Using a multi-layer approach, the MSA 1850 reports the transport stream status on the physical layer, protocol, and audio/video levels. It also monitors quality of service parameters in an easy-to-understand manner, enabling even non-MPEG experts to make accurate decisions and maximize service availability.

To ease the challenges of relating transport stream errors with actual signal degradations, the MSA 1850 presents information using straight-forward thumbnails, audio and video alarms, closed caption decoding, along with a reconstructed program guide. With these intuitive displays, any user can have the right tool to check and understand the impact of any error. For even greater levels of detail, an MPEG expert can connect to the MSA 1850 and view table syntax, monitor for TR 101 290 and ATSC A/78 errors, access error logs, and make stream recordings.





SMD 989 - DVB-S/S2 Satellite Modulator

The SENCORE SMD 989 DVB-S/S2 professional modulator is ideal for single or multi-stream MPEG Transport Stream modulation. Leveraging the latest modulation technology, the SMD provides high-value solution with unmatched signal quality.

Tighter "S2+" roll-off factors and multistream support with Variable Coding and Modulation (VCM) ensures the SMD will be ready for the future of S2 modulation. Integrated processing features such as TR 101 290 error checking and BISS scrambling make the SMD the most versatile modulator available for video applications.

The optional, built-in L-Band upconverter enables the SMD 989 to provide an IF or L-band output. This eliminates the need for multiple pieces of equipment and provides a compact solution for facilities housing multiple modulators or for insertion into L-band inter-facility links.

The chassis has two bays allowing for a variety of configurations, including two independent modulators for density, redundant power supplies for reliability, or DC BUC power for truck installs.



- 4 ASI inputs, 0.5-160 Mbps
- IP input, 1 GbE, up to 6 streams at 0.5-160 Mbps
- IF output 70 MHz/140 MHz (step 1 Hz)
- L-band output 950-2150 MHz (step 1 kHz)
- DC power on L-band 24VDC@3.1A/48VDC@1.6A
- 10 MHz reference frequency on L-band
- Transport stream analyzer level 1 to TR 101 290
- Redundant power supply
- Support BISS-1/BISS-E with ID, Single Key, Single TS Scrambling



- Modulation DVB-S/DSNG QPSK/8PSK/16QAM
- · Baud rate: 0.5 45 Mbaud
- · Roll-off: 0.20, 0.25, 0.30
- Modulation DVB-S2/S2/S2X QPSK/8PSK/16/32APSK
- · Modes: CCM / VCM
- · Baud rate: 0.5 45 Mbaud
- · Roll-off: 0.05, 0.10, 0.15, 0.20, 0.25, 0.35
- · Number of streams per output: 1-6



VB120 – IP Distribution Monitoring Blade

The VB120 modular broadcast probe is designed for continuous digital TV monitoring. System scalability in terms of monitoring capacity, signal formats handled and functionality ensures a future-proof solution. The ability to continuously measure all your media services makes the VB120 invaluable for confidence monitoring.

- 1 x 10/100/1000 Ethernet
- 1 x optical SFP GigE port
- 1 x ASI input and 1 x ASI output
- Complete analysis of TR 101 290 (Pri 1, 2, 3)

VB220 – IP Core Monitoring Blade

- Round robin for TR 101 290
- Analysis of up to 50 IP multicast/unicast streams simultaneously
- Support modules ASI, DVB-S/S2, DVB-T/T2, DVB-C/C2
- Support for IGMPv2 and IGMPv3 SSM, v802.1Q VLAN



- Support SNMP, XML, WEB, Eii
- Assessment and analysis of PSI/SI, PSIP, EPG (EIT)
- Cross-flow analysis and services
- Keeping statistics up to 96 hours

The VB220 IP-PROBE is a monitoring platform for all applications in any network where digital video is carried across an IP infrastructure. This network service tool is ideal for both pure IPTV networks and hybrid networks with IP transport cores (such as digital cable and terrestrial networks).



- 1 x 10/100/1000 Ethernet
- 1 x optical SFP GigE port
- 1 x ASI input and 1 x ASI output
- Complete analysis of TR 101 290 (Pri 1, 2, 3)

- Round robin for TR 101 290
- Analysis of 260 IP multicast/unicast streams simultaneously
- Support modules ASI, DVB-S/S2, DVB-T/T2, DVB-C/C2
- Support for IGMPv2 and IGMPv3 SSM, v802.1Q VLAN

- Support SNMP, XML, WEB, Eii
- Assessment and analysis of PSI/SI, PSIP, EPG (EIT)
- Cross-flow analysis and services
- Keeping statistics up to 96 hours

VB330 – IP 10G Core Monitoring Blade

The VB330 Probe is the flagship in Sencore's VideoBRIDGE product line. It can be equipped with up to two 10GB Ethernet inputs providing the capability to monitor thousands of IP streams in central head-ends and network back-bone architecture. The VB330 utilizes a patented easy-to-use visual interface for measuring and monitoring IP signals throughout the entire network.

- Up to 2 x 10GBE port
- 1 x 10/100/1000T Ethernet
- 1 x entry to the reference oscillator 1PPS
- Complete analysis TR 101 290 (Pri 1, 2, 3)

- Monitoring IP settings from ETSI TS 102 034
- Analysis to several thousand multicast/unicast streams
- Decoding as thumbnails SD/HD/MPEG-2/MPEG-4
- Support for IGMPv2 and IGMPv3 SSM, v802.1Q VLAN



- Support SNMP, XML, WEB, Eii
- Assessment and analysis of PSI/SI, PSIP, EPG (EIT)
- Cross-flow analysis and services
- Keeping statistics up to 96 hours

VB12 – IP Distribution Monitoring Probe

The VB12 is the most portable broadcast monitoring and measurement platform available. Featuring both optical and electrical GigE Ethernet inputs, separate management port and both ASI input and output, the VB12 has the widest range of built in interfaces in the industry.

- 1 x 10/100/1000T Ethernet
- 1 x optical SFP GigE port
- 1 x ASI input
- Complete analysis TR 101 290 (Pri 1, 2, 3)

- Round robin for TR 101 290
- Measurement ETSI TS 102034
- Analysis up to 50 IP multicast/unicast streams simultaneously
- Support for IGMPv2 and IGMPv3 SSM, v802.1Q VLAN



- Support SNMP, XML, WEB, Eii
- Assessment and analysis of PSI/SI, PSIP, EPG (EIT)
- Cross-flow analysis and services
- Keeping statistics up to 96 hours

VB12-RF – IP and QAM/8VSB Monitoring Probe

Sencore has extended its award-winning VideoBRIDGE™ product line with the launch of the VB12-RF, a highly portable RF/ IP monitoring appliance for terrestrial and cable applications. With complete ETR101-290 analysis and alarming, the VB12-RF includes an interface for RF, ASI and IP in a compact and ruggedized chassis smaller than most laptop computers.

- 1 x 10/100/1000T Ethernet
- 1 x optical SFP GigE port
- 1 x ASI input
- 1 x QAM 16, 32, 64, 128, 256

- Complete analysis TR 101 290 (Pri 1, 2, 3)
- RF analysis, MER, BER (before/after FEC)
- \bullet Analysis of up to 50 IP multicast/unicast streams simultaneously
- Support for IGMPv2 and IGMPv3 SSM, v802.1Q VLAN

- Support SNMP, XML, WEB, Eii
- Assessment and analysis of PSI/SI, PSIP, EPG (EIT)
- Cross-flow analysis and services
- Keeping statistics up to 96 hours

VB20 – IP Core Monitoring Probe

The VB20 provides the ability to monitor continuously 260 services for critical measurements makes the portable VB20 invaluable for field use. Its ruggedized exterior and fan-less design make this probe the perfect fault-finding tool for the field engineer. With full support for both the MPEG2 TS and MFRTP encapsulation standards and all current codecs, the VB20 is the tool of choice.

- 1 x 10/100/1000T Ethernet
- 1 x optical SFP GigE port
- 1 x ASI input
- Complete analysis TR 101 290 (Pri 1, 2, 3)

- Round robin for TR 101 290
- Analysis of 260 IP multicast/unicast streams simultaneously
- Measuring MDI (RFC4445)
- Support for IGMPv2 and IGMPv3 SSM, v802.1Q VLAN



- Support SNMP, XML, WEB, Eii
- Assessment and analysis PSI/SI, PSIP, EPG (EIT)
- Cross-flow analysis and services
- Keeping statistics up to 96 hours

Series Analyzers VideoBRIDGETM



VB242 – ASI Monitoring Blade

The VB242 ASI input option card allows operators real-time high density ASI monitoring or switched ASI round-robin monitoring for remote or head-end applications. With up to 13 ASI inputs in a 1 RU chassis in combination



with the VB220 or VB120 controllers, the VB242 is perfect for existing infrastructures in the head-end and the regional edge-multiplexer/ modulator/ transmitter site. The VB242 complements the already extensive range of input interfaces for the VideoBRIDGE series probes.

- Continuous monitoring of two independent streams of ASI;
- Cyclic six serial streams
- 6 ASI inputs

- Measurement ETSI TR101 290 (P1, P2, P3)
- Support DVB-ASI and M2S, 188/204 bytes
- 75Ω BNC (female)

- Round robin measurements • Up to 2 modules in the same class
- Input synchronization LED
- VB262 QAM/8VSB Dual Monitoring Blade

The VB262 DUAL QAM/8VSB input option offers monitoring of QAM signals as found in QAM cable networks and DTT signals found in 8VSB networks. The chassis can be equipped with a single VB120 or VB220 IP-PROBE master



card that has one or two VB262 QAM input cards under its control.

The complete configuration with the fully licensed VB120 provides real-time monitoring and alarming for four QAM or 8VSB RF inputs, 10 IP MPTS/SPTS multicasts and one ASI TS input. ETSI TR 101 290 analysis is performed in parallel for QAM inputs, the ASI input and the IP input. If the VB220 is used as master card the IP monitoring capacity is increased to impressive 260 MPTS/SPTS multicasts in addition to the RF inputs.

- Two entrances QAM (16/32/64/128/256)
- Measurement ETSI TR101 290 (P1, P2, P3)
- Round robin measurements
- Compliance with ETS 300 249 for DVB-C
- Measurement signal level, SNR, pre/post FEC BER, MER, SR
- Constellation mapping
- High selectivity channels

VB252 - DVB-T/T2 Dual Monitoring Blade

VB252 is a dual input DVB-T/T2 input interface module that enables monitoring of digital terrestrial transmissions. Two modules may be housed in a 1RU chassis together with a controlling VB120 or VB220 probe, providing



high monitoring capacity occupying a minimum of rack space.

In addition to monitoring typical RF parameters, the monitoring solution optionally allows advanced analysis of the complex DVB-T MI protocol; signal integrity is verified layer by layer. This analysis functionality is complemented by the renowned VideoBRIDGE ETSI TR 101 290 monitoring engine to ensure standards conformance at all levels.

- DVB-T (EN 300-744), DVB-T2 (EN-302-755)
- Two independent RF input (47-856 MHz)
- Measurement in SFN networks
- Input 1 PPS

- Measuring the packet error rate; signal level; SNR; pre/post BCH BER; MER
- Constellation mapping and impulse response

VB272 - DVB-S/S2 Dual Monitoring Blade

Together with the VB120 or VB220 controller the operation of the VB272 is via an intuitive web interface, a GUI providing a graphical overview of scanning status and ETR290 TS data as well as a full constellation diagram of the transponder together with all relevant RF levels.



The combined unit is ideal for hybrid networks where IP is used as a carrier from head-end to the satellite uplink station. The built-in round-robin functionality allows sequential analysis of multiple DVB-S/S2 multiplexes, making it possible to monitor a complete transponder using a single VB272 interface card.

- Two RF input
- DVB-S 2-45 Msym
- DVB-S2 4- 45 Msym (LDPC/BHC)
- Modulation- QPSK/8/16/32APSK

- DiSEgC 1.2
- Round robin measurements.
- Measuring pre/post FEC BER, SNR, power level, signal strength

VB7880 - Advanced Content Extractor

The VB7880 Objective QoE Content Extractor performs objective video and audio measurements of MPEG-2, H.264 and HEVC streams and offers remote video-wall capability. The VB7880 content extractor offers thumbnail and metadata extraction for up to 100 TV multicast streams concurrently via GigE interfaces. The VB7880 content extractor is ideal for visual at-a-glance monitoring in the NOC, VOC, head-end or remotely via any standard web browser.

The VB7880 is typically placed before scrambling insertion in the head-end and the extracted metadata and decoded imagery is fed to the VideoBRIDGE Controller. Disruption of descrambling services is one of the main causes for service production disruptions in the head-end, and for the first time cost-effective monitoring of scrambling is available. Further applications are in middleware scenarios for generating channel mosaics or for extracting channel metadata such as picture resolution, video bandwidth or wide screen signaling information.

VBC - System Monitoring Server

The Sencore controller (VBC) is a server application, its main purpose being to offer central control and management of all Sencore devices. The VBC gives unprecedented insight into network health and the flow of media streams. Key elements in the VBC are:

- Control and configuration of components
- Condition monitoring video streams
- Visualization of the event history (last 4 days) with the help of technology Microtimeline ™
- Processing and SNMP trap
- Network structure
- Event logging

microVB - IP Edge Monitoring Probe

The microVB[™] is a breakthrough in both form-factor and functionality for real-time analysis of customer home network performance. This unobtrusive device provides deep packet inspection and end-to-end visibility in broadcast quality media delivery over any IP based infrastructure.

Combined with the Sencore server software, operators can now maintain 24/7 confidence monitoring from head end to customer home. Forget those expensive truck-rolls and keep your OPEX under control. Just pop a microVB[™] into an envelope and mail to the subscriber directly. No setup knowledge is required because the microVB[™] is literally plug and play.





Series Analyzers VideoBRIDGETM



Wellav Technologies

DMP900 – Digital Media Platform

The DMP900 is Wellav's most advanced product for service operators. It provides proven headend technology in a compact, 1RU chassis. With over 30 different input and output module options that can be combined as needed, it



offers a true, comprehensive video delivery solution.

Whether it is for multiplexing, receiving, encoding, transcoding, modulating, scrambling or descrambling applications, the DMP900 provides more capacity, flexibility and reliability while requiring less space, fewer connections and less power.

IFQ360 - Edge QAM

IFQ360 is a next generation edge QAM designed to meet the growing demand for VOD distribution over an IP or HFC network. IFQ360 also comes with multiplexing and DVB simulcrypt scrambling capability that supports



different system integration needs. The IFQ360 Edge QAM is a great value for content redistribution, VOD services and Switched Broadcast Video.

- High-density, 10Gbps input and 192 QAM output
- Redundant power supply and IP/QAM module backup
- Independent selection of each QAM frequency
- Perfect for VOD and program distribution
- Up to 2560 TS/IP streams input supported t all levels.

SMP 100 - Stream Media Platform

The SMP100 is Wellav's high-value product for medium and small sized service operators. It provides proven headend technology in a compact, 1RU chassis. With over 30 different input and output module options that can be combined as



needed, it offers a true, comprehensive video delivery solution.

Whether it is for multiplexing, receiving, encoding, transcoding, modulating, scrambling or descrambling applications, the SMP100 provides the perfect combination of capacity, flexibility and reliability at an affordable price point.

UMH - SD/HD Receiver/Decoder

The UMH160R is a powerful and costeffective broadcast level decoder. It supports signal receiving, multichannel descrambling, multiplexing, external table/data insertion, transcoding and transmodulating. It



also supports MPEG2/MPEG4 SD/HD program decoding with two audio channels. With a remote, web-based management interface, it is ideal to support advanced content distribution, real-time signal conversion and transmission for any headend system.





Where Content Meets Technology[™]

Sencore is a world class technology company focused on engineering, marketing and delivering innovative and reliable products and services for professional broadcast, satellite, cable, IPTV and content providers around the world to enable efficient, high quality video delivery.

- Video transport/ Compressed video technology
- Quality of Service (QoS) Monitoring and Analysis
- Multi-format content conversion
- Bandwidth savings
- Test & Measurement fast issue identification and resolution
- Backhaul solutions
- Custom designed solutions/ contract manufacturing