ENGINEERING BEYOND THE SIGNAL

COBALT

2021-2022 PRODUCT BRIEF

BEYOND THE SIGNAL

ENGINEERING BEYOND THE SIGNAL STARTS WITH INNOVATION.

Cobalt Digital has proudly provided engineering solutions to meet customers' needs since 1997. By speaking and listening closely to end users, Cobalt has developed equipment offering the answer for specific challenges. Our innovative products feature 24/7 service and support and many come with a five-year warranty, vital in today's broadcast industry. Our products are used extensively worldwide in production trucks, and by terrestrial, satellite and cable broadcasters, as well as many government facilities. As we enter our third decade of innovation and service, we reflect on how far the industry has come, and look forward to engineering products for tomorrow's broadcast and beyond.

COBALT

NEW
— FOR —
2021
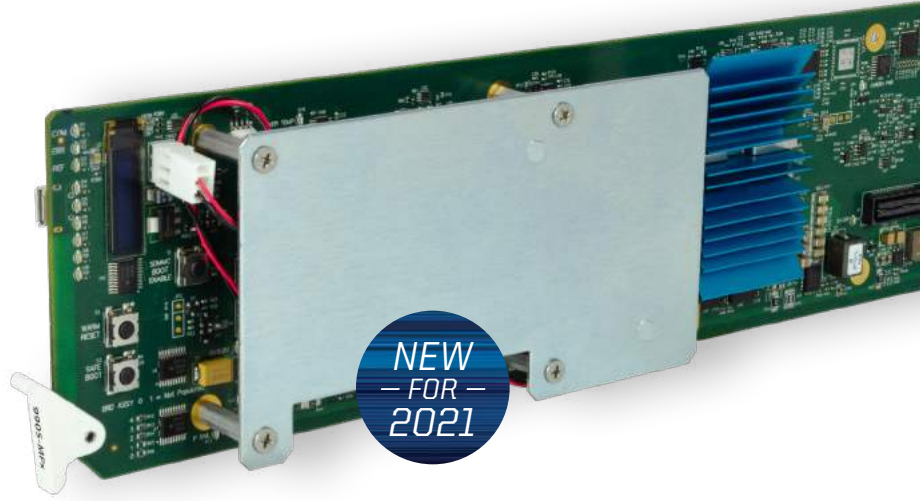
openGear

MULTI-PATH & MULTI-FUNCTION

A NEW LEVEL OF OPENGEAR® PACKAGING DENSITY.

9905-MPx 3G/HD/SD QUAD-PATH UP/DOWN/CROSS CONVERTER/ FRAME SYNC/EMBED/DE-EMBED AUDIO PROCESSOR

The all-new Multi-Path 9905-MPx 3G/HD/SD Quad-Path Up/Down/Cross Converter/ Frame Sync/Embed/De-Embed Audio Processor is a Cobalt® next-generation advanced scaler/frame synchronizer for the openGear® platform. The 9905-MPx provides four independent signal paths of UDX / frame sync / audio embedding and de-embedding on a single open-Gear® card. Using our HPF-9000 20-slot frame, this provides up to 24 channels (6 cards) of processing in a single frame. The 9905-MPx represents a new level of openGear packaging density!

The 9905-MPx provides high-density that offers unprecedented multi-input support and flexibility. Independent up/down/cross convert scalers are specifically designed for broadcast video formats, with full ARC control suitable for conversions to or from 4:3 and 16:9 aspect ratios. Discrete AES and MADI audio audio embedding/routing/mixing/de-embedding to any of four processing paths is supported. Standard 3D LUT feature and available color correction provide accommodation of SDR and HDR processing for downstream HDR systems.

Card control/monitoring is available via DashBoard user interface or Cobalt's RESTful-based Reflex protocol. The 9905-MPx can be software-converted to a 4K Quad-Link Input SDM/2SI 4K UDX/Frame Sync card with an option software license.

LEARN MORE *AT COBALTDIGITAL.COM* ↗

KEY FEATURES

- Multi-Path design offers four independent UDX / frame sync paths (channels) per card

- Flexible AES and MADI embed/de-embed for each path

- Multi-input RP168 clean switch, with manual selection or GPI controlled input selection

- Up/Down/Cross Conversion with user ARC control. 3D-LUT is standard feature for all paths.

- Supports all popular formats: 480i, 576i, 720p, 1080i, 1080pSF, 1080p

- Independent four-path ANC bridging, including timecode and closed-captioning processing

- Noise Reduction and Detail Enhancement provide image quality optimization

- Remote control/monitoring via Dashboard™ software, OGCP-9000 remote control panels or Cobalt's RESTful-based Reflex protocol

- Five year warranty

9915DA-4X16-XPT-12G
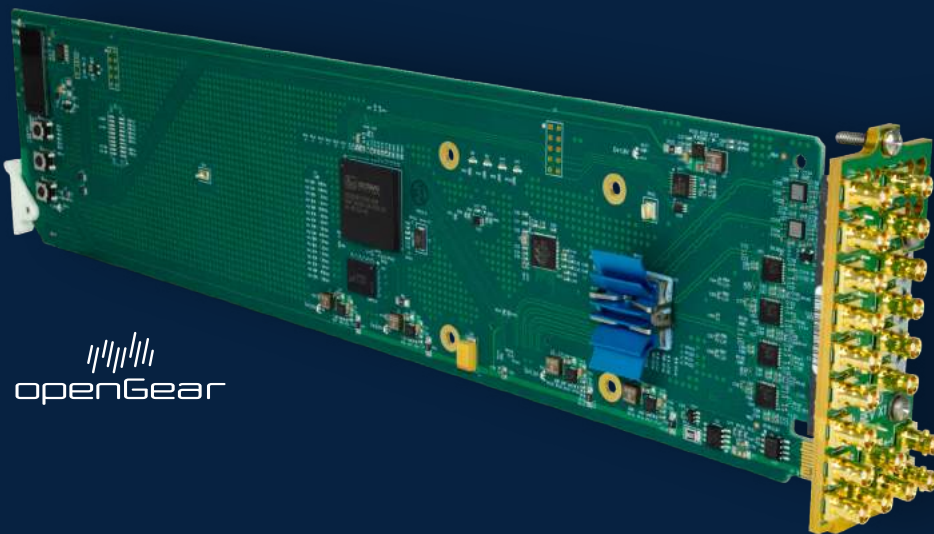## 12G/6G/3G/HD/SD QUAD-CHANNEL MULTI-RATE RECLOCKING DA WITH X4 OUTPUT CROSSPOINT

The 9915DA-4x16-XPT-12G 12G/6G/3G/HD/SD Quad-Channel Multi-Rate Reclocking DA with x4 Output Crosspoint supports four input channels which can be crosspoint-routed to up to 16 DA outputs. As demand for 4K continues to rise, distribution of 12G-SDI signals within a rackspace becomes increasingly important. The 9915DA allows for copper runs of up to 45 meters, reaching most equipment within a rack room or truck. For longer runs, the optional optical inputs and outputs allow the 9915DA to connect distribution from zones of much greater distances.

The extremely flexible crosspoint (which is user-configurable via DashBoard™ GUI remote control) allows quad 1x4, dual 1x8, single 1x16 and other routing possibilities. Any of the four input channels can be distributed or duplicated across four groups of 1x4 DAs. The quad-input capacity provides a one-card solution for distribution of 8K quad-link content over 12G-SDI interfaces. A failover function allows going to secondary backup inputs should the primary input lose lock.

Up to 10 of the 9915DA-4x16-XPT-12G cards can be installed in a frame to provide 40 channels of input, with distribution to up to 160 outputs. Full user DashBoard™ or Remote Control Panel remote control allows full status and control access locally or across a standard Ethernet network.

KEY FEATURES

- Supports all popular formats: 480i, 576i, 720p, 1080i, 1080pSF, 1080p

- Flexible output crosspoint allows card to function as quad-channel 1x4, dual-channel 1x8, single-channel 1x16, or other numerous routings with reclocking DA

- Full support of 12G/6G/3G/HD/SD-SDI and ASI/DVB

- Input data rate auto-detection for all industry-standard data rates

- Added fiber inputs/outputs via optional SFPs

- One-card solution for distribution of 4K/8K content over 12G-SDI interfaces

- Failover provides backup to selected secondary inputs if primary input loses lock, Available for both coax and (optional) fiber inputs.

- Card display and DashBoard status input lock indicators

- Hot-swappable

- Five year warranty

openGear

ALSO AVAILABLE

9915DA-2X16-XPT-12G 12G/6G/3G/HD/SD Dual-Channel Multi-Rate Reclocking Distribution Amplifier with x4 Output Crosspoint

9915DA-1X16-12G 12G/6G/3G/HD/SD-SDI 1x16 Reclocking Distribution Amplifier

9910DA-2Q-3G / 9910DA-2Q-3G-RCK
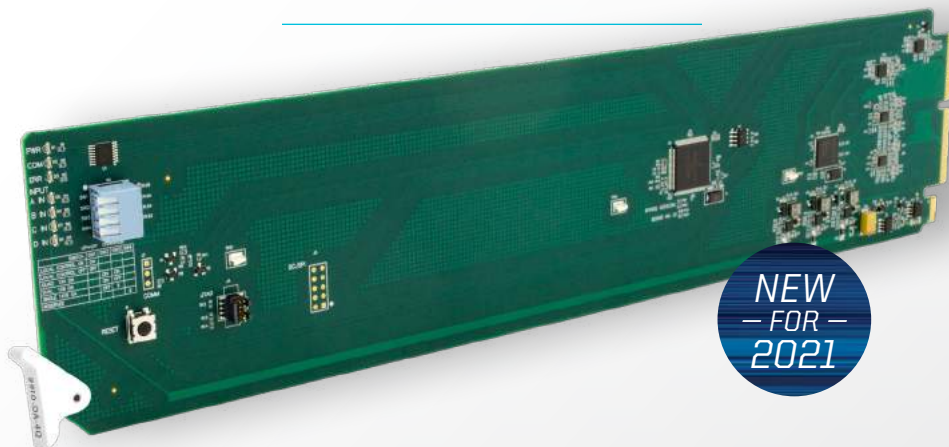## 3G/HD/SD/ASI DUAL-CHANNEL MULTI-RATE DISTRIBUTION AMPLIFIERS

The Cobalt® 9910DA-2Q-3G 3G/HD/SD/ASI Dual-Channel Multi-Rate DA with x4 Output Crosspoint supports two input channels which can be crosspoint-routed to any of 16 DA outputs. The 9910DA-2Q-3G-RCK is multi-rate (with user enable/disable reclocking 9910DA-2Q-3G-RCK model), and supports SDI and ASI/DVB on all inputs and outputs with non-inverting outputs.

The extremely flexible crosspoint (which is user-configurable via DashBoard™ GUI remote control) allows dual 1x8 or single 1x16 and other routing possibilities. Any of the two input channels can be distributed or duplicated across four groups of 1x4 DAs, and either of the two inputs can be set to use an alternate failover input upon loss of signal.

Excellent receive performance allows receive EQ for up to 120m 3G and 160m HD cable length (1694A). Card edge and DashBoard™ remote status monitoring indicates input lock for each input channel. Up to 10 of the 9910DA-2Q-3G-RCK cards can be installed in a frame to provide 20 channels of input, with distribution to up to 160 outputs.

Full user DashBoard™ or Remote Control Panel remote control allows full status and control access locally or across a standard Ethernet network.

KEY FEATURES

- Full support of 3G/HD/SD-SDI and ASI/DVB

- Supports all popular formats: 480i, 576i, 720p, 1080i, 1080pSF, 1080p

- Reclocking can be enabled or disabled for each input channel on the 9910DA-2Q-3G-RCK

- Excellent receive performance – EQ allows 1694A cable lengths up to 120m (3G) / 160m (HD) / 400m (SD)

- Flexible output crosspoint allows card to function as dual-channel 1x8 or single-channel 1x16 DA (Reclocking DA on the 9910-2Q-3G-RCK)

- Failsafe mode automatically switches to selected secondary input on loss of primary input

- Input data rate auto-detection for all industry-standard data rates

- All outputs are non-inverting – ASI can be outputted on any output

- Card edge and DashBoard™ status and individual input lock indicators

- Hot-swappable

- Five year warranty

The 9910DA-2Q-3G is Available in Both Non-Reclocking and Reclocking Models

NEW — FOR — 2021

DUAL-CHANNEL MODELS

9910DA-2Q-3G 3G/HD/SD/ASI Dual-Channel Multi-Rate DA with x4 Output Crosspoint (Non-Reclocking)
9910DA-2Q-3G-RCK 3G/HD/SD/ASI Dual-Channel Multi-Rate Reclocking DA with x4 Output Crosspoint

9910DA-1Q-3G / 9910DA-1Q-3G-RCK
3G/HD/SD/ASI SINGLE-CHANNEL MULTI-RATE DISTRIBUTION AMPLIFIERS

The Cobalt® 9910DA-1Q-3G 3G/HD/SD/ASI Single-Channel Multi-Rate DA supports one input channel which can be distributed to up to 16 DA outputs. The 9910DA-1Q-3G is multi-rate (with user enable/disable reclocking 9910DA-1Q-3G-RCK model), and supports SDI and ASI/DVB on all inputs and outputs with non-inverting outputs.

Excellent receive performance allows receive EQ for up to 120m 3G and 160m HD cable length (1694A). Card edge and DashBoard™ remote status monitoring indicates input lock. Up to 10 of the 9910DA-1Q-3G cards can be installed in a frame to provide distribution of up to 160 outputs.

Full user DashBoard™ or Remote Control Panel remote control allows full status and control access locally or across a standard Ethernet network.

KEY FEATURES

- Full support of 3G/HD/SD-SDI and ASI/DVB

- Supports all popular formats: 480i, 576i, 720p, 1080i, 1080pSF, 1080p

- Reclocking can be enabled or disabled for input on the 9910DA-1Q-3g-RCK

- Excellent receive performance – EQ allows 1694A cable lengths up to 120m (3G) / 160m (HD) / 400m (SD)

- Input data rate auto-detection for all industry-standard data rates

- All outputs are non-inverting – ASI can be outputted on any output

- Card edge and DashBoard™ status and individual input lock indicators

- Hot-swappable

- Five year warranty

The 9910DA-1Q-3G is Available in Both Non-Reclocking and Reclocking Models

NEW
— FOR —
2021
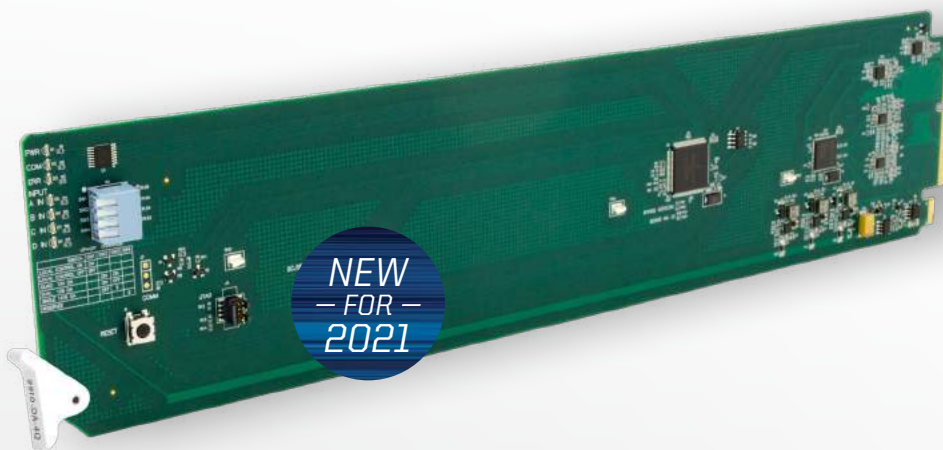
SINGLE-CHANNEL MODELS

9910DA-1Q-3G 3G/HD/SD/ASI Single-Channel Multi-Rate DA (Non-Reclocking)

9910DA-1Q-3G-RCK 3G/HD/SD/ASI Single-Channel Multi-Rate Reclocking DA

SCALABLE, COST-EFFECTIVE, REAL-WORLD SOLUTIONS.

To us, signal processing is about more than just powerful processing and system capabilities. Just as important are scalable, cost-effective, real-world solutions that not only meet today's demands but adapt to tomorrow's challenges. We believe that a scalable, space efficient and flexible approach to terminal equipment and systems offers the best value and choice without compromising ease of integration, features, or economy. We call it *Engineering Beyond the Signal*™, and it's that philosophy that guides everything we do.

COBALT DIGITAL *ENGINEERING BEYOND THE SIGNAL*™
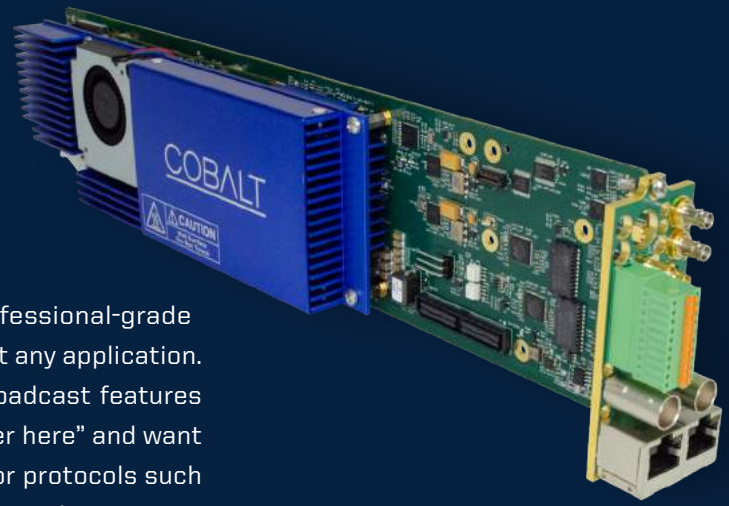
COBALT®

COMPRESSION
TRADITIONAL BROADCAST FEATURES WITH ADVANCED NETWORK OPTIONS

Cobalt Digital has an extensive set of products with professional-grade support for compressed audio and video, suitable for almost any application. Cobalt products are unique in their blend of traditional broadcast features with advanced networking options. If you have a signal "over here" and want to send it "over there", we have you covered with support for protocols such as RIST, RTP/UDP/FEC, RTMP, RTSP and SRT. We have products that support MPEG-2 (H.262), AVC (H.264) and HEVC (H.265), with extensive audio support.

All of our products are offered both as openGear® cards for high density, as well as standalone units if you need just a few channels and are space-constrained.

LEARN MORE AT COBALTDIGITAL.COM ↗

4K HEVC STREAMING ENCODE
12G-SDI OR QUAD 3G-SDI INPUT UHD STREAMING ENCODE TO IP & DVB-ASI OUT

12G/3G-SDI
(or 3x 3G-SDI) → **9992-ENC-4K-HEVC**

IP   DVB-ASI

TRANSPORT NETWORK

2018 TECHNOLOGY AND ENGINEERING
EMMY®
RECIPIENT

4K HEVC STREAMING DECODE
IP or DVB-ASI input UHD Decode to Quad 3G-SDI or 12G-SDI

IP   DVB-ASI

9992-DEC-4K-HEVC → 12G/3G-SDI
(or 3x 3G-SDI)

IN ADDITION TO ENCODERS AND DECODERS, COBALT OFFERS THE FOLLOWING PRODUCTS:

9220 ASI/IP GATEWAY: Converts between ASI and IP for legacy products

9990-RTR: Unicast/Multicast IP stream conditioner and distribution amplifier

9990-TRX: 4-channel MPEG-2/H.264 transcoder with IP and ASI inputs and outputs

ENCODER LINE OF COMPRESSION PRODUCTS

Cobalt offers a comprehensive broadcast-grade encoder line that can address virtually any application. All of our encoders are designed for reliable 24x7x365 operation, and have extensive frame-accurate support for ancillary data, which includes CC, AFD, SCTE-104/35 for ad insertion, SMPTE 2038 for generic ANC transport, and SMPTE 2108 for HDR transport. Additionally, the 9992-ENC includes a built-in framesync at no additional cost. Cobalt encoders offer unparalleled flexibility, where most advanced features are enabled by field-installed license keys. This creates a pay-as-you-go structure, where there is a relatively low entry cost, and features such as audio support, HEVC, 4:2:2, can be added at a later time in an as-needed basis. On the networking side, the encoders support ASI, UDP, RTP, FEC, HLS and RTMP. The encoders also support SRT and RIST (Reliable Internet Stream Transport), both Simple Profile and Main Profile (which includes encryption and authentication).

ENCODER – VIDEO FEATURES

	MPEG-2	H.264	H.265	4:2:0	4:2:2	8-bit	10-bit	ASI	Max Resolution	Max HD Channels
9223		●		●		●		●	1080p60	2
9990-ENC		●		●		●			1080p60	2
9992-ENC	●	●	●	●	●	●	●	●	4Kp60	4

ENCODER – AUDIO FEATURES

	MPEG-1 Layer II	AAC-LC Stereo	AAC-LC 5.1	HE-AAC Stereo/5.1	Dolby AC-3 Stereo/5.1	Dolby EAC-3 Stereo/5.1	Max Stereo Channels
9223	●	●					4
9990-ENC	●	●					2
9992-ENC	●	●	●	●	●	●	16

* All Cobalt Encoders support Dolby Pass-Through.

DECODER LINE COMPRESSION PRODUCTS

Cobalt offers a similar broadcast-grade decoder line that matches the encoder lineup. This includes ASI input support, as well as the same set of networking protocols, including UDP, RTP, FEC, HLS, RTMP, SRT and RIST, including both Simple Profile and Main Profile. Cobalt decoders also support RTSP, which allows the signal from surveillance cameras to be ingested into your workflow in a professional manner.

DECODER – VIDEO FEATURES

	MPEG-2	H.264	H.265	4:2:0	4:2:2	8-bit	10-bit	ASI	Max Resolution	Max HD Channels
9990-DEC	●	●		●		●		●	1080i60	1
9992-DEC	●	●	●	●	●	●	●	●	4Kp60	2

DECODER – AUDIO FEATURES

|	MPEG-1 Layer II	AAC-LC Stereo	AAC-LC 5.1	HE-AAC Stereo/5.1	Dolby AC-3 Stereo/5.1	Dolby AC-4 Stereo/5.1	Dolby EAC-3 Stereo/5.1	Max Stereo Channels
9990-DEC	●	●	●**	●**	●**		●**	2
9992-DEC	●	●	●	●	●	●***	●	16

* All Cobalt Decoders support Dolby Pass-Through. ** Surround channels downmixed to stereo in this model. *** Future Avaibility

RELIABLE INTERNET STREAMING TRANSPORT (RIST)
LOW COST INTERNET CONTRIBUTION

RIST is an Internet transport protocol created by the VSF with contributions from Cobalt Digital. The multi-vendor support behind RIST makes it an important part of the technology stack for any video workflow. With less required bandwidth than FEC in most cases, RIST uses the Emmy winning ARQ technology that Cobalt Digital has helped pioneer.

LEARN MORE AT COBALTDIGITAL.COM ↗

CONTROL ROOM A Video & Audio **CONTROL ROOM B**

PUBLIC INTERNET

Video & Audio
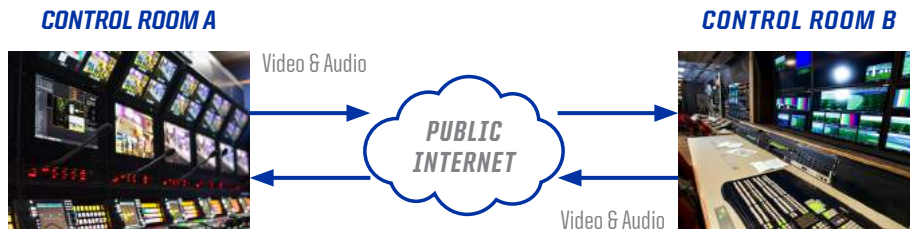
Use the Internet as a Low Cost Contribution Network with RELIABLE INTERNET STREAMING TRANSPORT (RIST) – the Interoperable, Multivendor Open Protocol Developed by the VSF for Video Transport Over Unmanaged Networks.

RIST SUPPORT IN COBALT ENCODERS/DECODERS

	RIST Simple Profile	RIST Main Profile		
		Tunneling	Encryption	Authentication
9990-ENC				
9223	●	●		
9990-DEC	●	●	●	●
9992-ENC	●	●	●	●
9992-DEC	●	●	●	●
SafeLink	●	●*	●*	●*

* Future Availability

SAFELINK RIST GATEWAY

Cobalt offers the SafeLink RIST Gateway to convert between RIST streams and standard UDP/RTP streams, to support legacy equipment without RIST support.

9942-RTR SERIES ROUTERS
12G ROUTER WITH UNPRECEDENTED FLEXIBILITY

The Cobalt 9942-RTR series provides a high-density card-based solution that offers unprecedented flexibility, ease of use, and integration. The 9942-RTR series offer a built-in Ethernet port, as well as serial and GPIO control interfaces. Also supported are easy-to-use JSON-based ReFLEX, and third-party router protocols that allow for easy integration with A/V control and automation systems, including interface support of industry-standard router protocols and panels. Through the DashBoard™ control system, users can design custom control panels that provide the most intuitive remote control and monitoring interfaces possible.

The 9942-RTR Series Routers – Design Specifically Optimized for 12G Support.
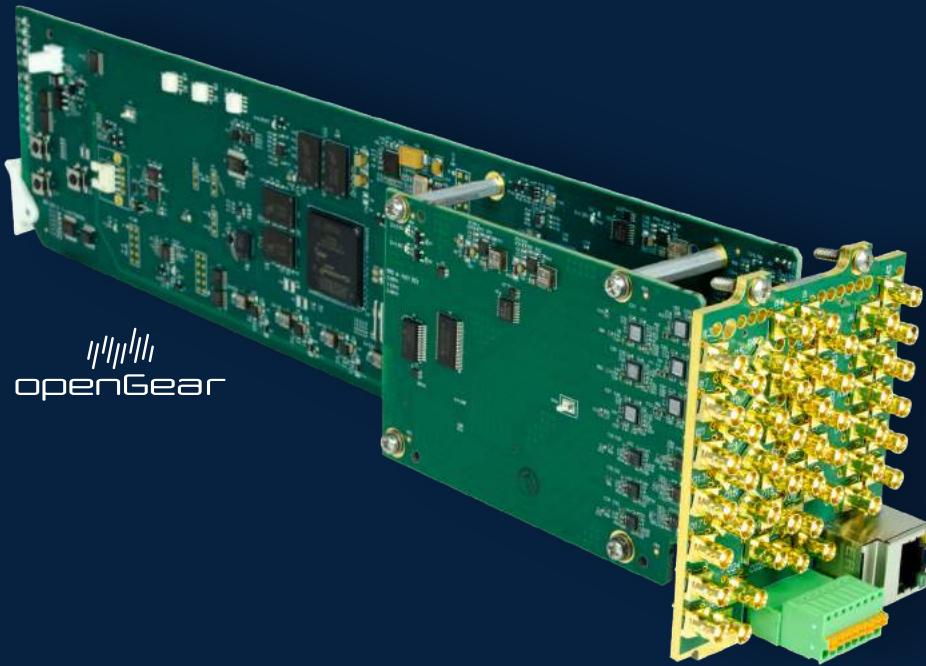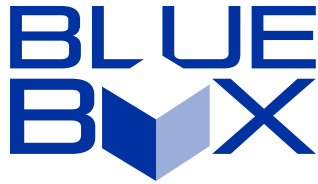

openGear

KEY FEATURES

- Exclusive openGear® card-based scalable router solution

- Design specifically optimized for 12G support

- High-density design in openGear® form offers compact 2RU solution

- Flexible control/monitoring options including Ethernet, JSON-based ReFLEX, and third-party router protocols

- Direct interface compatibility with openGear®, Cobalt Reflex, SW-P-08, and Sierra Video (serial) protocols. Direct compatibility with DNF, PESA PNET, and LAWO SNAP panels (and other panels conforming with supported protocols).

- Supports software upgrades allowing expanded functionality without removing cards and minimal disruption

- DashBoard™ remote control status monitoring and setup/control

- Five year warranty

9942-RTR SERIES MODELS
9942-RTR-12X12-12G 12G/3G/HD/SD-SDI / ASI / MADI 12x12 Router
9942-RTR-24X24-12G 12G/3G/HD/SD-SDI / ASI / MADI 24x24 Router

BBG-1300-FR
1RU ENCLOSURE FOR OPENGEAR® CARDS

BLUE BOX

The Cobalt BBG-1300-FR is a 1/3 rack width 1RU openGear® compatible frame capable of housing two cards in a split width or 1 card in a standard width rear IO module. A built in network card allows any openGear® capable card to show up and be controlled or monitored in DashBoard™. Looping reference on the unit provides black burst or tri-level timing to both cards slots within the chassis without taking additional outputs on the custom rear IO module.

NEW — FOR — 2021

openGear

The BBG-1300-FR 1RU Enclosure Holds up to Two openGear® Cards with Standard Size Rear IO Modules, a Built In Network Card and 60 W of Available Power.

Any card within the Cobalt Product lineup with a compatible I/O panel can be housed in the BBG-1300-FR, with a total available power of 60 W. Three BBG-1300-FR units can fit onto a single 1 RU tray for maximum density when a 2RU frame is not feasible. The unit can also be employed in remote locations where a full size 2RU 22 slot openGear® frame is not required.

A front control panel makes status monitoring and network connectivity straight forward with an LCD display screen. The front rotary knob makes navigation simple and easy to use. SNMP control available.

LEARN MORE *AT COBALTDIGITAL.COM* ↗

FEATURES

High power for 4K and IP solutions

Full openGear® compatibility supporting openGear-compatible cards as well as latest and legacy 20-slot frame openGear® rear modules

One looping reference internally routed to all user card slots

Two power supplies for power redundancy

Network Controller Card enables Dash-Board™ for seamless remote setup, monitoring, and control.
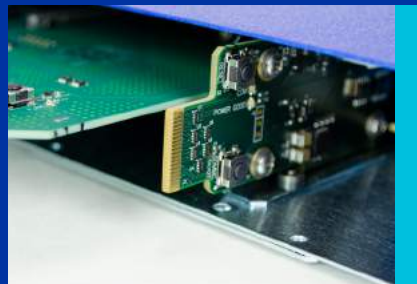
Front display with rotary knob and buttons for simple and quick control

Pull-away front door panel allows quick, easy card insertion

Optional Frame Support Bracket kit provides frame rear support for mobile applications

Remote control/monitoring via DashBoard™ or SNMP

Five year warranty

A built in network card, along with an LCD screen and front control panel that includes a rotary knob, makes navigation, status monitoring and network connectivity simple and easy to use.

SNMP control available.

ACCESSORIES FOR THE BBG-1300-FR

BBG-1300 Tray
Rack Mounting Surface for Mounting three BBG-1300-FR units

BBG-TRAY-RSB
Rear Support Bars and Brackets

MULTIVIEWERS
FULL 4K MULTIVIEWERS WITH 12G-SDI, HDMI 2.0

Cobalt's line of 4K multiviewers support 3840x2160 inputs and outputs via 12G-SDI & HDMI 2.0 so you can use cost-efficient consumer 4K displays. Also, for 1080p input applications you can drive a 4K quad split without losing a pixel of resolution. They also feature multi-language capability.

SIX INPUT 4K MULTIVIEWER
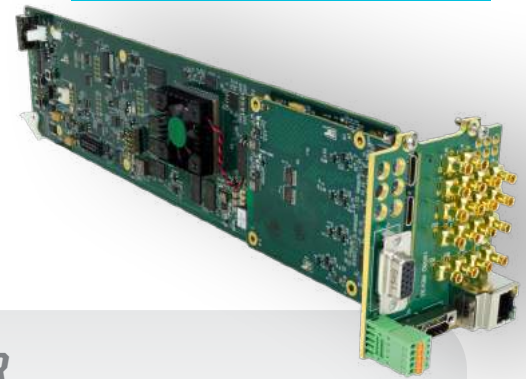
6x 12G-SDI → **9971-MV6-4K** → 12G-SDI / HDMI 2.0
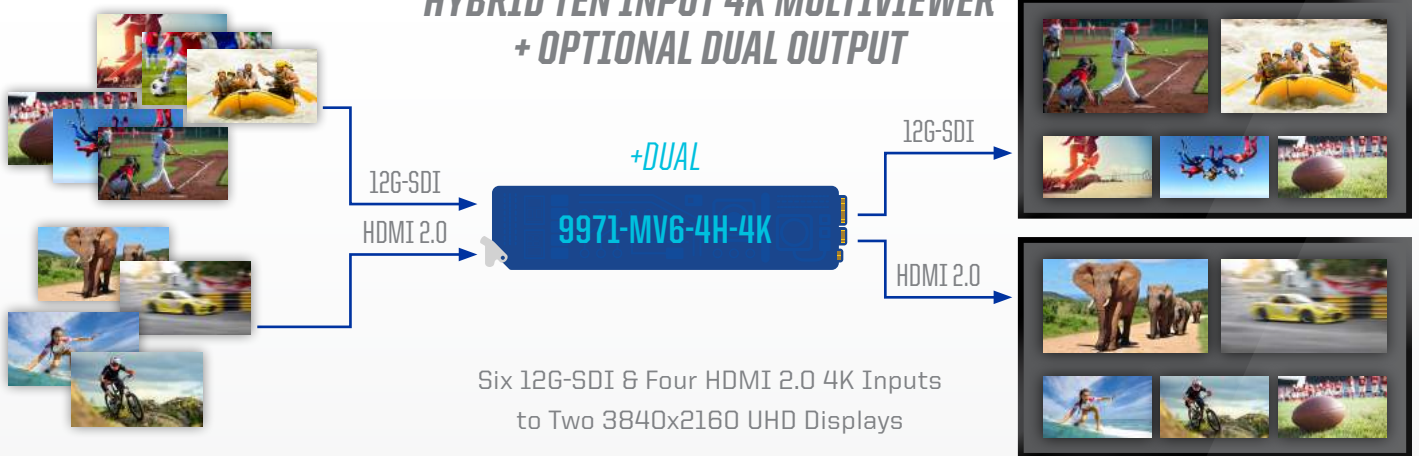
Six 12G-SDI 4K Inputs to a Single 3840x2160 UHD Display via 12G-SDI & HDMI 2.0

HYBRID TEN INPUT 4K MULTIVIEWER + OPTIONAL DUAL OUTPUT

12G-SDI / HDMI 2.0 → **+DUAL** **9971-MV6-4H-4K** → 12G-SDI / HDMI 2.0

Six 12G-SDI & Four HDMI 2.0 4K Inputs to Two 3840x2160 UHD Displays

	9970-QS	9970-QS-MC	9971-MV6-4K	9971-MV6-4H-4K	9971-MV18-4K
SDI Inputs	5	5	6	6	18
SDI Outputs	2	2	4	4	4
4K			●	●	●
HDMI 2.0 Inputs				4	
HDMI 2.0 Outputs			●	●	●
DUAL Output Capable			●	●	●
Feed Consumer or Professional Monitors	●	●	●	●	●
External Alarming		●			

EIGHTEEN INPUT 4K MULTIVIEWER
+ OPTIONAL DUAL OUTPUT

12G-SDI

+DUAL

9971-MV18-4K

12G-SDI

HDMI 2.0

Eighteen 12G-SDI 4K Inputs to
Two 3840x2160 UHD Displays
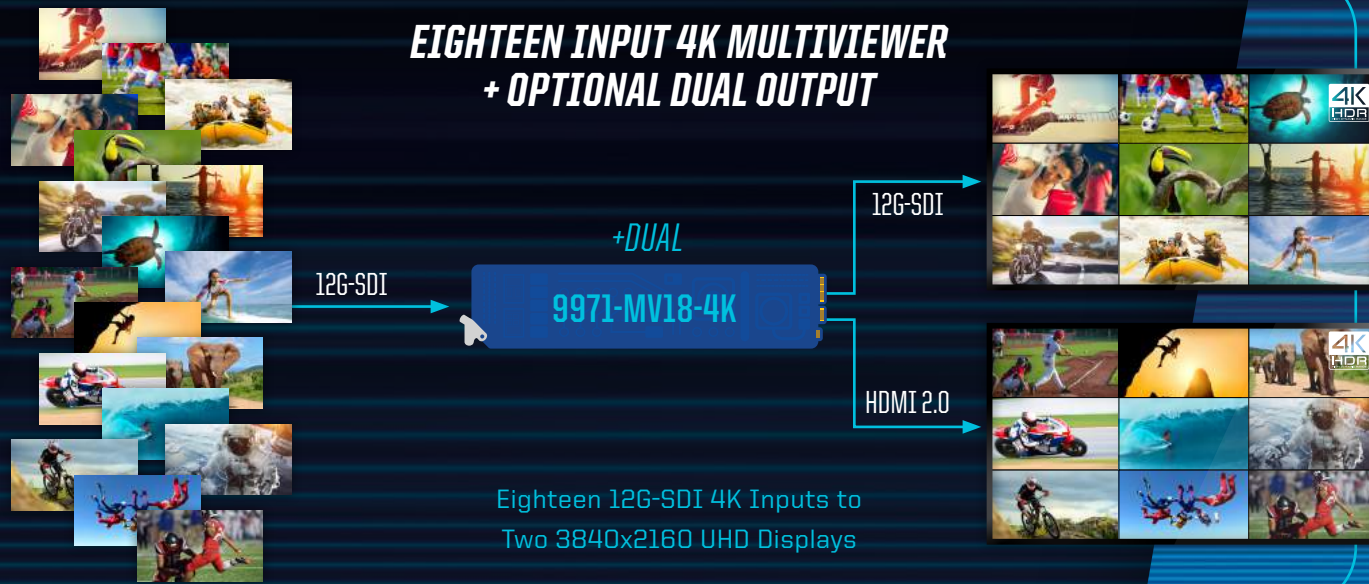
MASTER CONTROL MULTIVIEWERS
SOLUTIONS FOR PRODUCTION AND MASTER CONTROL

9x16 "portrait" layout, perfect
for mobile environments

The popular line of 9970-QS 3G-SDI 1080p multiviewers integrate five discrete 3G/HD/SD-SDI or CVBS inputs onto a single 3G/HD/SD-SDI quint-split output, with each image being flexibly inserted into the output image area.

Based on our award-winning 9970-QS, the 9970-QS-MC is specifically designed for master control applications by providing layout optimization that saves space, and easily implemented QC screening of master control ingest.

The 9970-QS-MC provides the ability to orient and arrange PIPs in columns arranged for a 9x16 "portrait" layout. This allows consumer or professional monitors to be oriented "on-end", thereby saving wall-width in any area (especially in space-conscious mobile environments).

LEARN MORE AT COBALTDIGITAL.COM

HDR CONVERSION AND DISTRIBUTION
HLG, S-LOG 3 OR PQ FORMATS

Producing HDR broadcasts with a mix of HDR and SDR sources has never been easier than with Cobalt's implementation of Technicolor's Intelligent Tone Mapping (ITM) and SL-HDR technology. With the 9904-UDX-4K processing card SDR can be turned in to HDR dynamically without operator intervention. Similarly HDR sources can be fed to SDR trucks or facilities, just as if the production was shot in SDR.

For distribution of HDR content, Cobalt leverages Technicolor's SL-HDR encode to create an SDR signal with metadata that can be reconstructed downstream to play the original HDR signal, or SDR depending on the capabilities of the TV or set-top-box. This allows for a single stream of transport to support both HDR and SDR devices.

LEARN MORE AT COBALTDIGITAL.COM ↗
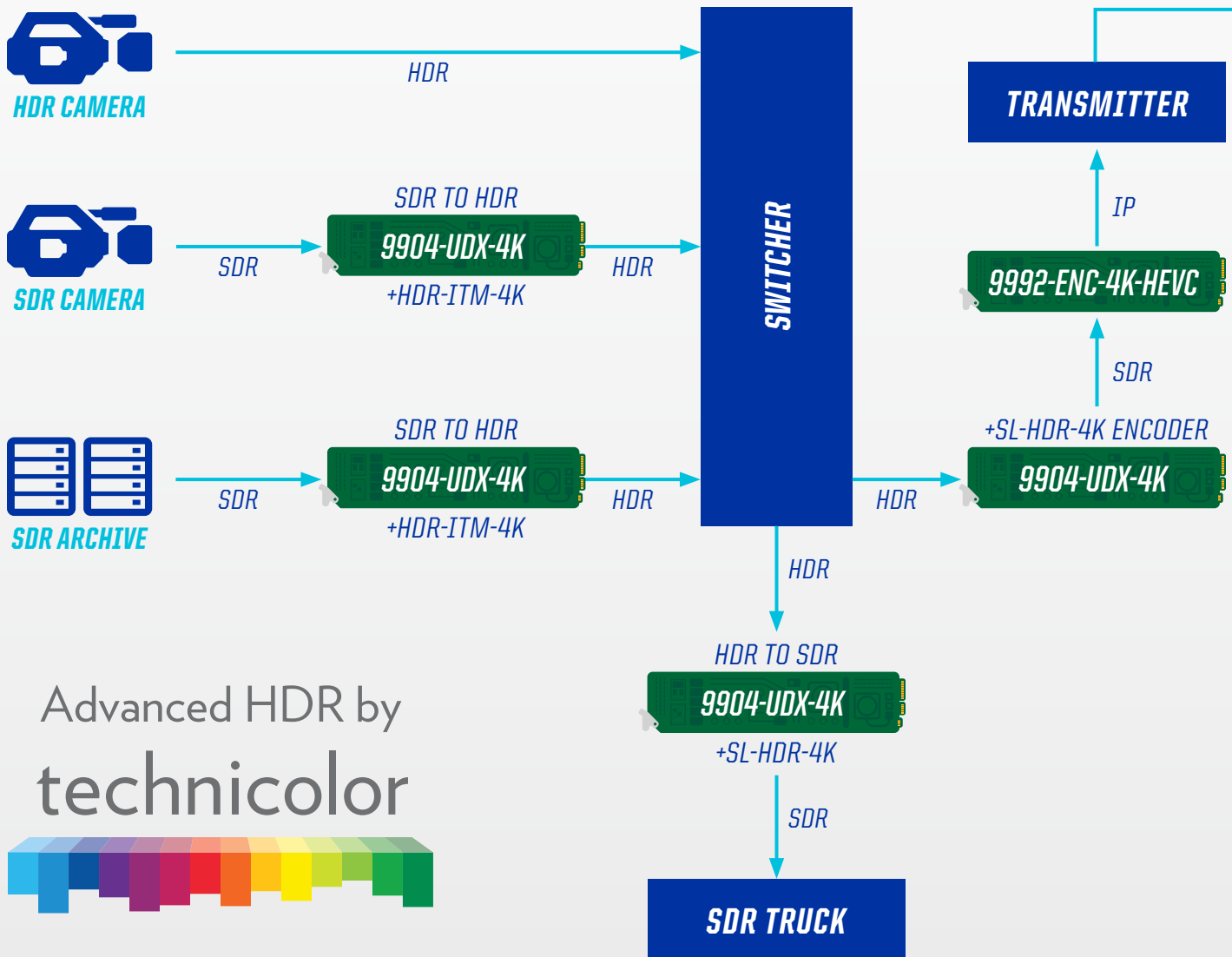
Advanced HDR by
technicolor

Television can take the SDR signal, or reconstruct the HDR signal from the SL-HDR Metadata

ATSC 3.0 ENCODER

IP

STB

Technicolor SL-HDR Decoder

IP

ATSC 3.0

SDR   +METADATA

HDR TO SDR

RECEIVER

9904-UDX-4K

+SL-HDR-4K ENCODER

IP

HDR

9992-DEC-4K-HEVC

SDR

SDR

SDR

CONTROL ROOMS

HDR   SDR

Television can take the SDR signal, or reconstruct the HDR signal from the SL-HDR Metadata

9904-UDX-4K

+SL-HDR-4K DECODER

HDR

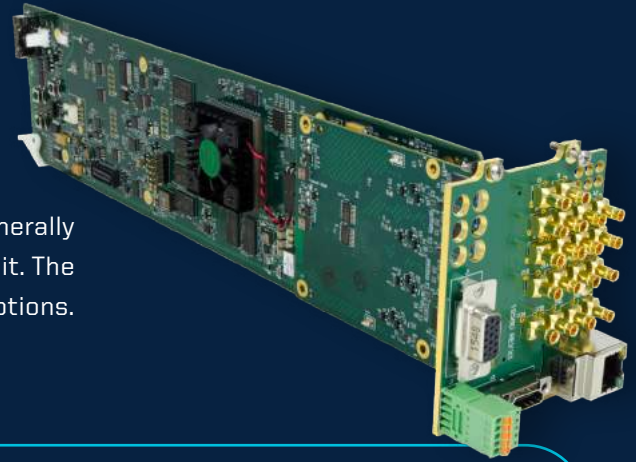HDR

SDR TO HDR

9904-UDX-4K

+HDR-ITM-4K

SDR

COMMERCIALS

SOFTWARE DEFINED PROCESSING
FOR 2K & 4K

Cobalt products support licensable feature upgrades that are generally field installable meaning you can add functionality when you need it. The 9902-UDX-DSP-CI and 9904-UDX-4K have an extensive library of options.

LEARN MORE AT COBALTDIGITAL.COM ↗

SMPTE-2110 FRAME SYNC & CONVERSION

720P → ST-2110 10GigE → **9904-UDX-4K-IP** → ST-2110 10GigE → IP NETWORK → 1080p

HD & 4K OPTIONAL REMOTE CONTROL RGB COLOR CORRECTION

12G/3G-SDI, 3G-SDI, 3G-SDI, 3G-SDI → **+COLOR-4K** **9904-UDX-4K+COLOR-4K** → 12G/3G-SDI, 3G-SDI, 3G-SDI, 3G-SDI

Ethernet

OGCP-9000/CC Control Panel

	9902-UDX-DSP-CI	9904-UDX-4K	9904-UDX-4K-DSP	9904-UDX-4K-IP
Software Defined Processing	●	●	●	●
4K 3840x2160		●	●	●
HD 1080p/1080i/720p	●	●	●	●
12G I/O		●	●	●
HDMI 2.0 I/O		●	●	●
HDMI 1.4 I/O	●	●	●	●
PAL/NTSC Composite Analog	●			
AES I/O	●	●	●	●
Format/Standards Conversion	●	●	●	●
IP Formats (2110 & 2022-6/7)	●			●
Advanced Audio Processing	●		●	

OTT MULTISCREEN DELIVERY
RTMP & HLS STREAMING

With consumer preference changing to consume media across a range of devices, content providers need to ensure the ability to deliver content to those devices. Cobalt Digital encoding products provide the on-site appliance for delivery to any range of Content Distribution Networks.
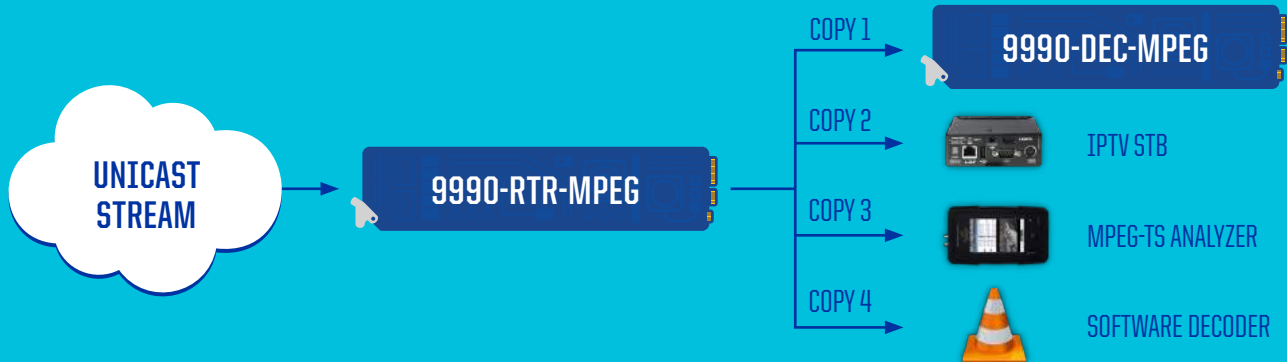
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2019 TECHNOLOGY AND ENGINEERING
EMMY ®
R E C I P I E N T
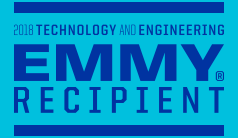
AVAILABLE FOR
9223
9990-ENC
9992-ENC
9992-ENC-4K-HEVC

USTREAM
an IBM Company

YouTube

WOWZA media systems

Akamai

Adobe

verizon

UNICAST STREAM CONDITIONER & DISTRIBUTION AMPLIFIER

UNICAST STREAM → 9990-RTR-MPEG

COPY 1 → 9990-DEC-MPEG

COPY 2 → IPTV STB

COPY 3 → MPEG-TS ANALYZER

COPY 4 → SOFTWARE DECODER

Streams are De-Jittered & Re-Clocked then Replicated up to Eight Times

Cobalt Digital Inc. designs and manufactures award-winning IP and 12G/6G/3G/HD/SD conversion, throwdown, and multiviewer technology for the production and broadcast television environment. As a founding member in the openGear® initiative, Cobalt offers a full range of openGear-compliant solutions as well as video and audio processing products for closed caption compliance, production trucks, master control, HD news, signal transport, audio loudness processing, and color correction. Cobalt's Blue Box Group™ line of interface converter throwdown boxes streamlines and simplifies a wide range of IP and 12G/6G/3G/HD/SD conversion and processing tasks. In addition, the company's multi-image display processors enable multiviewer capabilities in the most demanding studio and remote production/broadcasting environments. Cobalt Digital products are distributed through a worldwide network of dealers, system integrators, and other partnerships.

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