

9992-DEC • AVC / MPEG-2 Software Defined Broadcast Decoder

The Cobalt® 9992-DEC AVC/MPEG-2 Software Defined Broadcast Decoder is a broadcast-grade multi-standard decoder designed to meet the most stringent requirements for today's broadcasters. It supports MPEG-2 and AVC (H.264), with resolution optionally up to 4K, as well as offering a full complement of audio decoding capabilities. The 9992-DEC is an industry standard openGear® card module and provides an ideal platform for transitioning to state-of-the-art decoding capabilities.

FEATURES

Future-Proof – The 9992-DEC Decoder supports MPEG-2, MPEG-4 AVC (H.264) and (optionally) HEVC (H.265), so it can be deployed today and upgraded as your needs change.

Industry Standard Form-Factor – The 9992-DEC is offered in the industry-standard openGear format, and is compatible with existing deployed openGear frames.

High Density – The 9992-DEC supports a 1080p60 input stream (two independent streams with +AVC option), or (optionally) a single UHD 4Kp60 input stream. One openGear frame can support up to 10 cards, for a total of 20 HD or 10 UHD 4K channels.

Full Audio Support – The 9992-DEC supports MPEG-1 Layer II, AAC-LC, HE-AAC, Dolby AC-3/EAC-3 and LPCM (SMPTE-302M), as well as Dolby AC-3/EAC-3 pass-thru. With an optional audio board, the decoder can support up to 16 audio channels with each video service.

Ultra Low Latency – Low latency modes available

Base Unit Features –

Support for one decode channel up to 1080p60

Support for MPEG-2 and MPEG-4 AVC (H.264)

Support for 4:2:0 8-bit/10-bit decoding

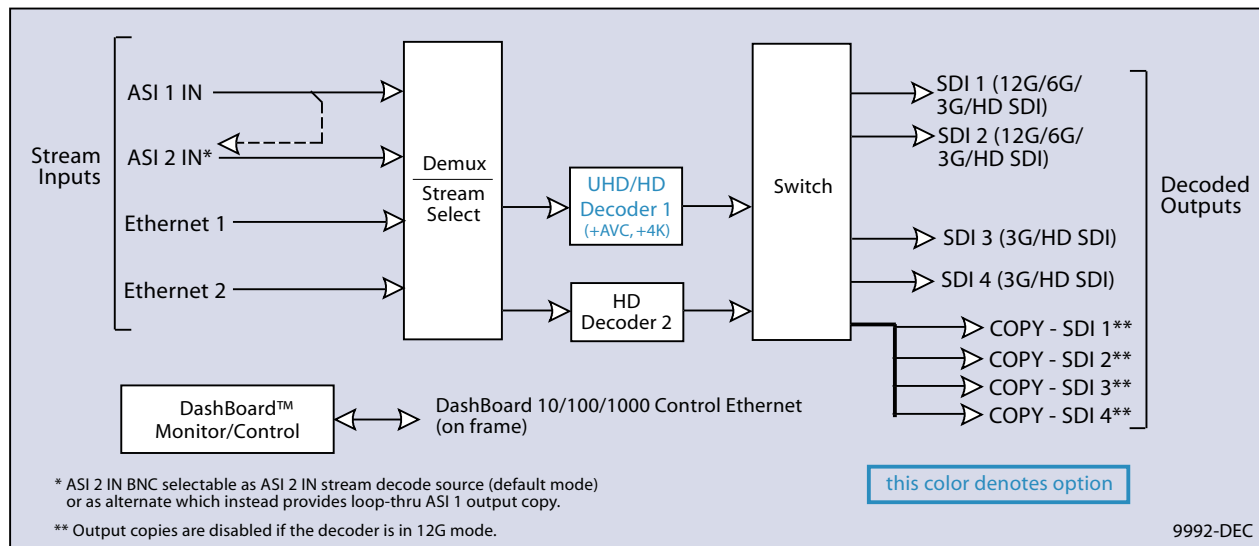
Full ancillary data support

Support for 4 stereo pairs (8 audio channels) in any combination of MPEG-1 Layer II, AAC-LC, and HE-AAC (v1/v2) modes

Supports UDP, RTP, HLS, and RTMP (Client mode). Other protocols available as options.

Remote control/monitoring via Dashboard™ software

Five-year warranty



SOFTWARE LICENSABLE OPTIONS

+HEVC Enables HEVC decoding on one AVC encode engine (up to 2 licenses max per unit).

+AVC Additional 1080p60 decoder channel with MPEG-2, MPEG-4 AVC, HEVC (up to one additional channel, for a total of 2 channels per unit). Includes support for two additional stereo pairs in MPEG-1 Layer II, AAC-LC, and HE-AAC (v1/v2) modes.

+4K 4K support. Requires +AVC and +HEVC license on card.

+422 4:2:2 decoding support (per unit)

+DEC-2.0 Dolby Digital/Dolby Digital Plus stereo audio decoding license

+DEC-5.1 Dolby Digital/Dolby Digital Plus 5.1 Surround Sound audio decoding license

+FEC Add SMPTE-2022 support (per unit)

+MP1L2-AAC-DEC MPEG-1 Layer II, AAC-LC, and HE-AAC audio decoding per pair. Three AAC licenses can be combined to allow one 5.1 surround decode.

+RIST/ARQ-DEC RIST RTP/ARQ support (per unit)

+DEC-RTMP-SVR RTMP Server Mode software option

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HARDWARE OPTIONAL FEATURES (Factory-installed on new product)

-9992DEC-IP-2110 SMPTE-2110 input / output module expansion (Future release availability)

-9992DEC-AUD Additional audio processor module equipped with a full set of MPEG-1 Layer II and AAC licenses (Future release availability)

SPECIFICATIONS

Inputs

- (2) DVB-ASI inputs
- (2) Gigabit Ethernet ports for IP input, supporting the following protocols:
 - UDP unicast/multicast
 - RTP unicast/multicast with optional SMPTE-2022 FEC
 - HTTP Live Streaming
 - RTMP (Server or Client; limited to H.264 only)
 - RIST for contribution over the Internet

Optional SMPTE-2110 baseband video over IP turnaround*

* Future release availability

Outputs

- (2) SDI outputs each supporting 12G-SDI, 3G-SDI, HD-SDI and SD-SDI
 - (2) SDI outputs each supporting 3G-SDI, HD-SDI and SD-SDI
- Support for all standard frame rates (interlaced and progressive): 23.98, 24, 25, 29.97, 30, 50, 59.94, 60

Video Post-Processing

- Support for up/down/cross conversion of output video (independent of incoming stream)*
 - Conversion between interlaced and progressive
 - Frame rate conversion
 - High Dynamic Range (HDR) support*
 - Built-in Genlock support
- * Future release availability

Video Decoding

- Decoding Standards:
 - MPEG-2
 - MPEG-4 AVC (H.264)
 - HEVC (H.265) (Option)
- Support for one 1080p60 decode session (dual 1080p60 decode session support optional)
- Support for UHD decoding (option) in AVC and HEVC modes (Maximum resolution 3840x2160p60)
- Support for 4:2:0 and 4:2:2 (option) color spaces in all modes
- Support for 8-bit / 10-bit decoding in all modes
- Low latency decoding supported

Audio Decoding

- Decoding Standards:
 - MPEG-1 Layer II
 - AAC-LC
 - HE-AAC (v1/v2)
 - Dolby AC-3 / EAC-3
 - LPCM (SMPTE-302M)
 - Dolby AC-3/EAC-3 pass-thru support
 - (5.1-Surround decoding available for AAC-LC, HE-AAC, Dolby AC-3 and Dolby EAC-3; subject to licensing)
 - Maximum number of channels supported (subject to licensing):
 - MPEG-1 Layer II: 16 stereo pairs (32 audio channels)
 - Dolby AC-3: 16 stereo pairs (32 audio channels)
 - Dolby EAC-3: 8 stereo pairs (16 audio channels)
 - AAC-LC: 8 stereo pairs (16 audio channels)
 - HE-AAC (v1/v2) 8 stereo pairs (16 audio channels)
 - Optional support for 5.1 Surround Sound decoding, in AAC and Dolby modes.
 - Optional audio module: increases the capacity to 32 stereo pairs (64 audio channels), allowing full 16-channel support for the four HD inputs, in all compression modes*
- * Future release availability

Ancillary Data Support

- Closed-Captioning: SMPTE-334M (EIA-608 and EIA-708 supported), Line 21 (SD sources)
 - OP-47/SMPTE RDD-08 teletext subtitles*
 - AFD: SMPTE-2016, Line 20/22 WSS (SD sources)
 - SCTE-35 to SCTE-104 conversion
 - SMPTE-2038 generic ancillary data transport (timecode, KLV, etc.)
- * Future release availability

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BASE MODEL ORDERING INFORMATION

Note: For Software Options and Upgrades, as well as Hardware Options, please see the respective Options sections listed above.

9992-DEC Single-channel AVC / MPEG-2 Software Defined Broadcast Decoder (includes (1) +AVC and (4) +MP1L2-AAC licenses)

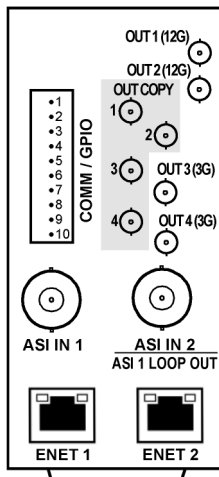
RM20-9992-DEC-B 20-Slot Frame Rear I/O Module (Standard-Width) (2) ASI Input BNCs, (2) GigE Ethernet Media Ports, (2) 12G/6G/3G/HD-SD-SDI Coaxial Outputs, (2) 3G/HD/SD-SDI Coaxial Outputs, (4) Output Copy Coaxial Outputs, COMM/GPIO Port (All SDI coaxial connectors HD-BNC. See Notes in illustration regarding port functions and limitations.)

- 1 - GPI 1
- 2 - GPI 2
- 3 - GPO 1
- 4 - GPO 2
- 5 - GPO COM
- 6 - GND
- 7 - RS232-A RX / 422 RX(-)
- 8 - RS232-B RX / 422 RX(+)
- 9 - RS232-A TX / 422 TX(-)
- 10 - RS232-B TX / 422 TX(+)

Note: Output ports marked as "(12G)" can output 12G and lower SDI media.
Output ports marked as "(3G)" are compatible only with 3G or lower SDI media.

Note: ASI IN 2 BNC can be DashBoard selected to function as an ASI copy of ASI IN 1.

Note: OUT COPY ports are disabled when card is in 12G mode.



RM20-9992-DEC-B-HDBNC