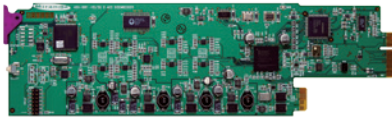
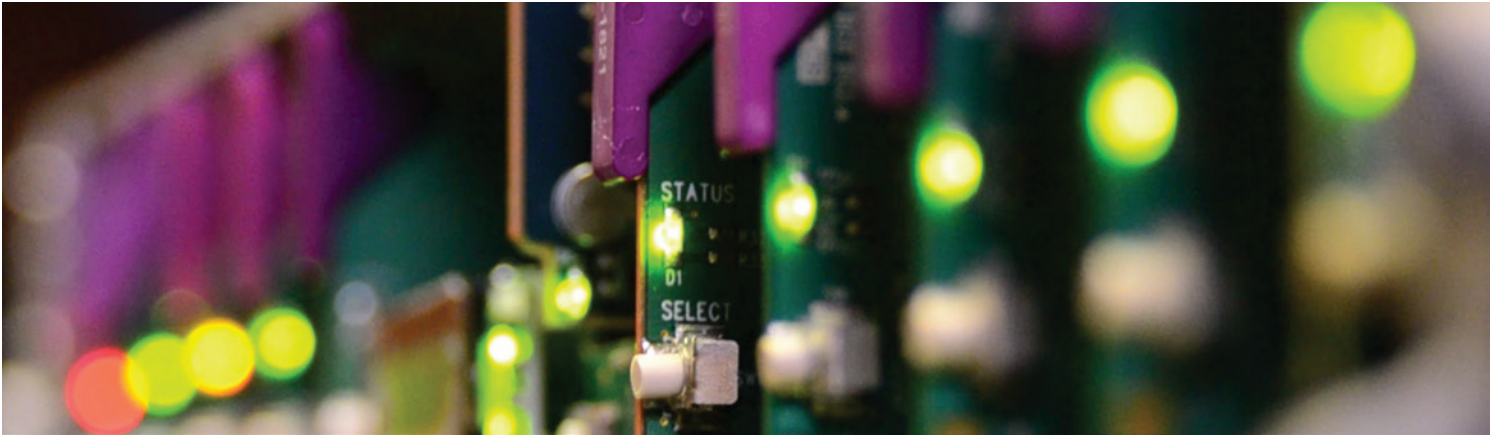


ADX-1881

8 AES HD/SD De-Embedder

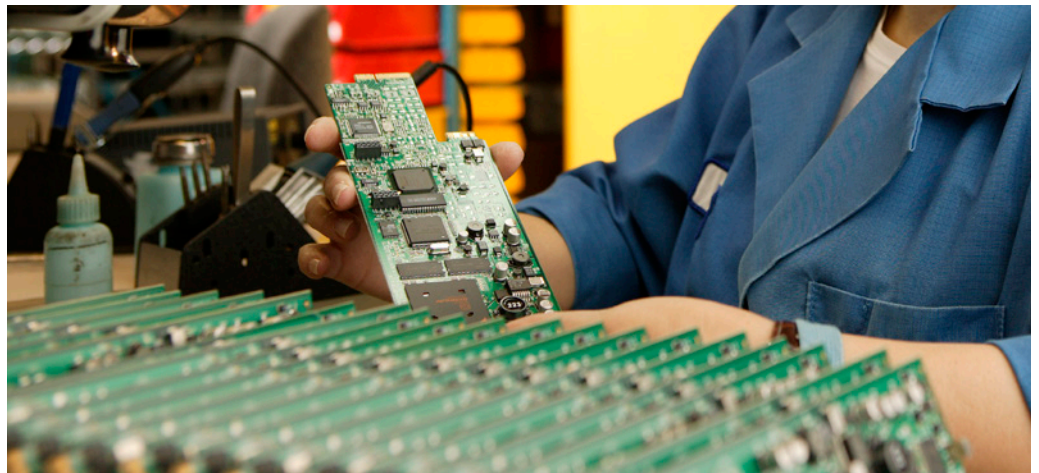


Space-saving, modular platform for advanced signal processing.

The ADX-1881 from Grass Valley, a Belden Brand, is a high-quality AES de-embedder designed to extract eight 24-bit 48 kHz digital audio signals, ancillary timecode (ATC), longitudinal/linear timecode (LTC) and ancillary data from a single SMPTE 292M HD-SDI or SMPTE-259M-C SD-SDI signal.

The ADX-1881 will output audio silence with a loss of the input signal. The card provides automatic input format detection, as well as automatic equalization. An RS-422 serial data signal output is available to provide Dolby E metadata output, or simply to output a serial RS-422 signal. Two opto-isolated GPI data output signals can be reconstructed from ANC data inserted by the embedder.

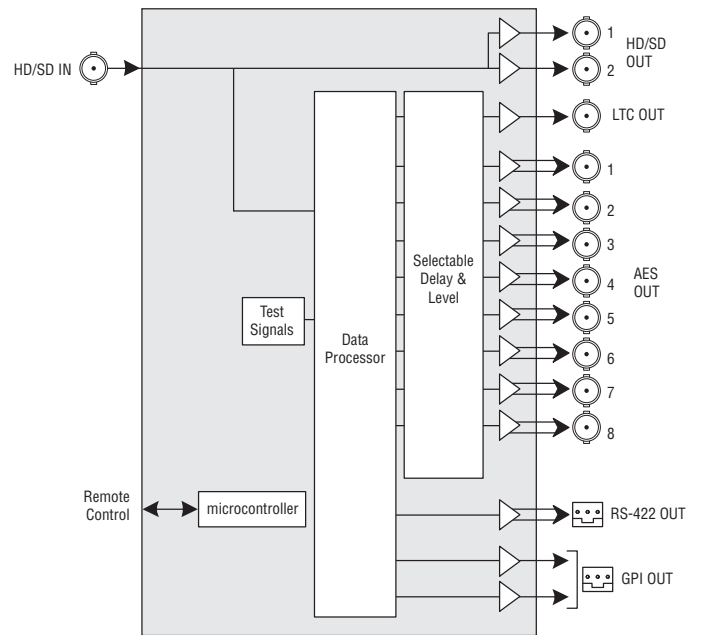
By combining AMX-1881 embedder and ADX-1881 de-embedder cards, a full duplex link may be established.



ADX-1881 8 AES HD/SD De-Embedder

KEY FEATURES

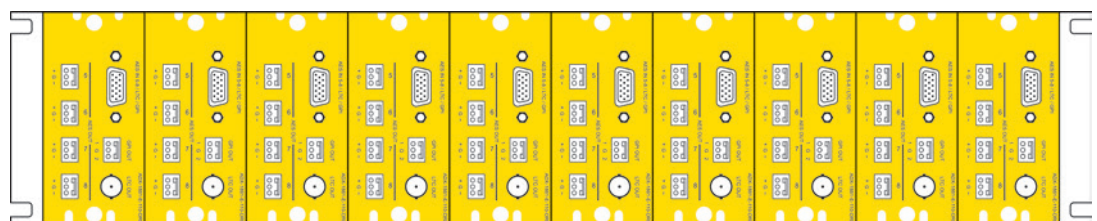
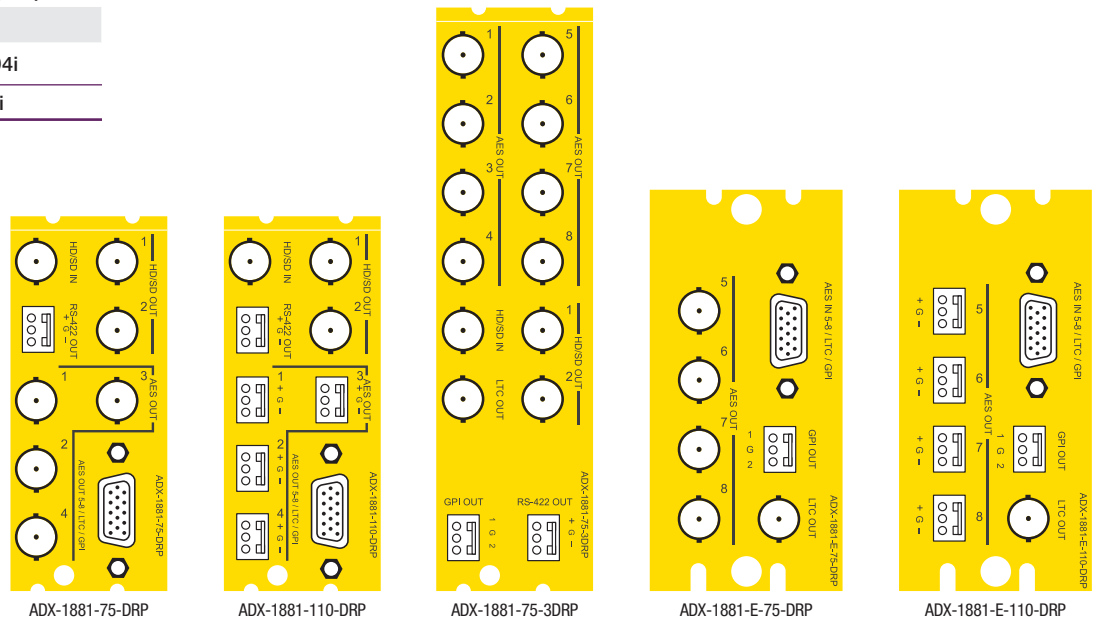
- HD/SD-SDI input with automatic equalization
- Automatic detection of video input format
- Two pass-through HD/SD-SDI video outputs
- 8 AES outputs at 110 ohm balanced or 75 ohm unbalanced, depending on rear panel in use
- Audio level adjustment, -96 to +12 dB
- Selectable audio delay of up to 3 frames in 1/2 frame steps
- 24-bit digital audio de-embedding
- Built-in audio test tone signal
- Audio silence output on loss of video input
- Left/right channels swappable for each AES output
- Selectable routing of audio groups to AES outputs
- Co-phased audio outputs
- Dolby E compatible
- RS-422 serial data output signal reconstructed from ANC data inserted by the embedder. Output can also be Dolby E or Dolby Digital
- Metadata embedded in VANC with proprietary DID
- Linear timecode (LTC) output translated from ancillary timecode (ATC) data or digital vertical interval timecode (DVITC)
- Two opto-isolated GPI data output signals reconstructed from ANC data inserted by the embedder
- By combining AMX-1881 embedder and ADX-1881 de-embedder cards, a full duplex link may be established



ADX-1881 Functional Block Diagram

ADX-1881

Resolutions	Formats
HD-SDI formats	
1920 x 1080	59.94i, 50i, 29.97p, 25p, 24p, 23.98p, 29.97psf, 25psf, 24psf, 23.98psf
1280 x 720	59.94p, 50p
SD-SDI formats	
525	59.94i
625	50i



Densité-EXT-MOUNT (shown with ADX-1881-E-110-DRP) 2 RU plate mounted on rear rails of rack. Holds 10 extended rear modules.

ADX-1881 8 AES HD/SD De-Embedder

SPECIFICATIONS

Video Input

Video signal:

HD/SD-SDI SMPTE 292M/SMPTE 259M

Embedded audio as per SMPTE 299M/SMPTE 272M

Embedded ATC/DVITC as per SMPTE RP 188/SMPTE 266M

Cable length: Up to 110/250m (360/820 ft.) of Belden 1694A

Return loss: >15 dB, 5 MHz to 1.5 GHz

Audio AES3 Output

Signal: AES3

Level: 3.0 Vp-p ±10%

Impedance: 110Ω balanced

AUDIO AES-3id OUTPUT

Signal: AES-3id (SMPTE 276M)

Level: 1.0 Vp-p ±10%

Impedance: 75Ω unbalanced

AUDIO AES SIGNAL

Sampling rate: 48 kHz synchronous

LTC Signal Output

Signal: Reconstructed LTC from ATC/DVITC

Impedance: <55Ω source, unbalanced 1 kΩ load

Level: 1.0 Vp-p

RS-422 Signal Output

Signal: RS-422

Serial mode: Reconstruction of signal input to embedder (38,400 or 115,200 Bd)

Dolby E/Dolby Digital mode: Dolby Metadata: RS-422, 115.2 kBd

GPI Signal Output (2)

Signal: Opto-isolated, common emitter

Forward voltage: 30V max

Reverse voltage: 5V max

Rate: DC- to 250 Hz

Video Output (Input Active Loop Through)

Propagation delay: 47 ns

Signal: HD/SD-SDI SMPTE 292M/SMPTE 259M

Return loss: >15 dB up to 1.5 GHz

Wideband jitter: as per SMPTE-259M-C and 292M

Processing Performance

Signal path: 10-bit video / 24-bit audio

Audio latency: 875 μs (combined embedding and extraction*)

Audio delay: Up to 3 video frames (1/2 frame steps)

ATC/DVITC delay: None, 1, 2 or 3 frames before translation to LTC

RS-422 latency: 500 μs max. (combined embedding and extraction *) (1 frame in metadata mode)

GPI latency: 4 video lines (combined embedding and extraction*)

Test signals: Audio - 1 kHz tone (R steady, L pulsed) -18 dBFS (EBU R49, R68)

LTC - 10 s loop starting at 23:59:00:00

Electrical

Power: 9.5W

*Applicable to combinations of AMX-1881 with ADX-1881.

ORDERING

Densité 2 frame

ADX-1881

ADX-1881-75-DRP

ADX-1881-110-DRP

Densité 3 frame

ADX-1881-3RU

ADX-1881-75-DRP-3RU

ADX-1881-110-DRP-3RU

Description

2 AES digital audio de-embedder

Single rear connector panel, 75Ω

Single rear connector panel, 110Ω

Options

ADX-1881-E-75-DRP

ADX-1881-E-110-DRP

Densité-EXT-MOUNT

ADX-AMX-1881-BOC-6

ADX-AMX-1881-BOC-3

BOC-DE15-4BNC-1

Description

Extended rear for ADX-1881-75-DRP (provides outputs 5-8, GPI and LTC out)

Extended rear for ADX-1881-110-DRP (provides outputs 5-8, GPI and LTC out)

Mounting plate for extended rear modules (1 plate can hold 10 extended rear modules)

1.82m (6 ft.) cable (required to link ADX rear module to extended rear module)

0.91m (3 ft.) cable (required to link ADX rear module to extended rear module)

75Ω digital audio breakout cable Remote control

Remote control

iControl, iControl Solo, RCP-200



GVB-1-0341A-EN-DS

WWW.GRASSVALLEY.COM

Join the Conversation at [GrassValleyLive](#) on Facebook, Twitter, YouTube and [Grass Valley - A Belden Brand](#) on LinkedIn.



Belden, Belden Sending All The Right Signals and the Belden logo are trademarks or registered trademarks of Belden Inc. or its affiliated companies in the United States and other jurisdictions. Grass Valley, Densité and iControl are trademarks or registered trademarks of Grass Valley, Belden Inc., Grass Valley and other parties may also have trademark rights in other terms used herein.

Copyright © 2014 Grass Valley. All rights reserved.