

# ADX-1881

## 8 AES HD/SD de-embedder

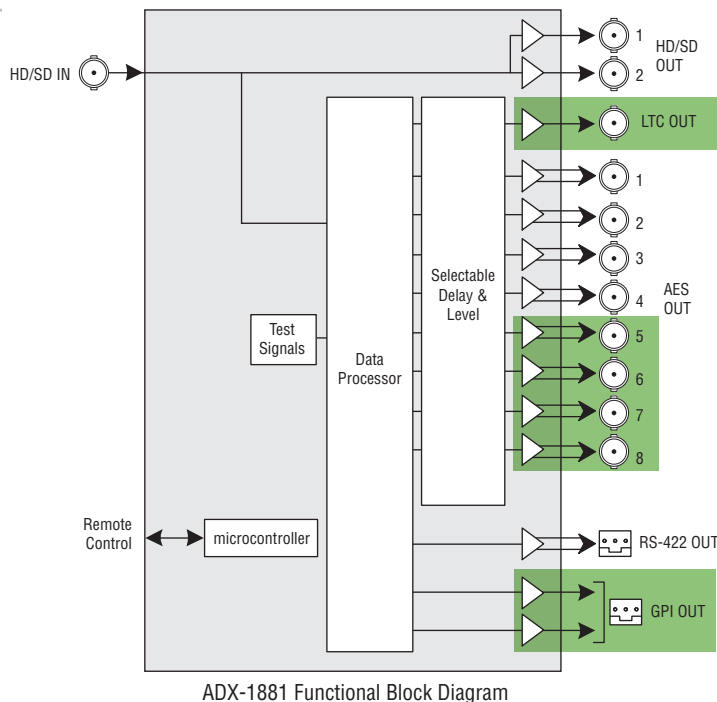


The ADX-1881 is a high-quality AES de-embedder designed to extract eight (8) 24-bit 48 kHz digital audio signals, Ancillary Time Code (ATC), Longitudinal Time Code (LTC) and ancillary data from a single SMPTE 292M HD-SDI or SMPTE-259M-C SD-SDI signal. The ADX-1881 will output audio silence with a loss of the input signal. The module has a built-in audio test tone signal, and can provide a delay of up to 6 fields to the audio.

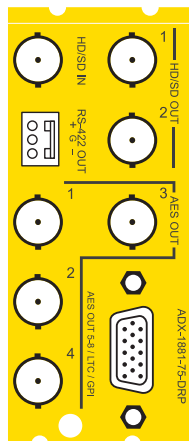
The card provides automatic input format detection, as well as automatic equalization. A RS-422 serial data signal output is available to provide Dolby™ E Metadata output, or simply to output a serial RS-422 signal. Two opto-isolated GPI data output signals can be reconstructed from ANC data inserted by the embedder. By combining AMX-1881 embedder and ADX-1881 de-embedder cards, a full duplex link may be established.

### KEY FEATURES AND BENEFITS

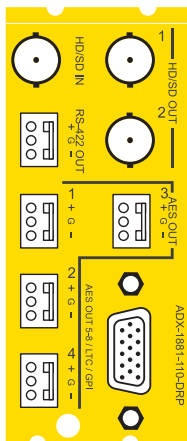
- > HD/SD-SDI input with automatic equalization
- > Automatic detection of video input format
- > Two pass-through HD/SD-SDI video outputs
- > 8 AES outputs at 110 ohm balanced or 75 ohm unbalanced, depending on rear panel in use
- > Audio level adjustment, -96 to +12 dB
- > Selectable audio delay of up to 3 frames in 1/2 frame steps
- > 24-bit digital audio de-embedding
- > 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 Time Code (LTC) output translated from Ancillary Time Code (ATC) data or Digital Vertical Interval Time Code (DVITC)
- > Two opto-isolated GPI data output signals reconstructed from ANC data inserted by the embedder



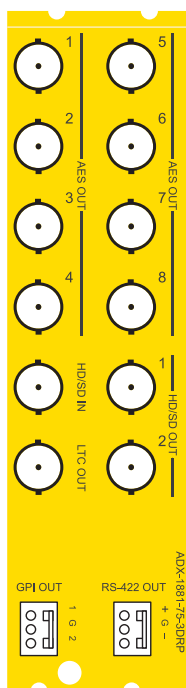
Available with  
ADX-1881-E-75-DRP and  
ADX-1881-E-110-DRP only.



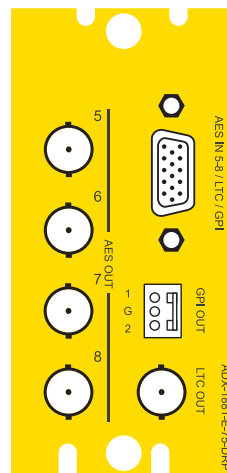
ADX-1881-75-DRP



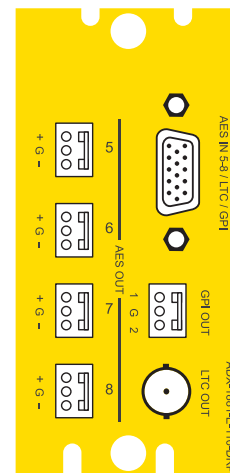
ADX-1881-110-DRP



ADX-1881-75-3DRP

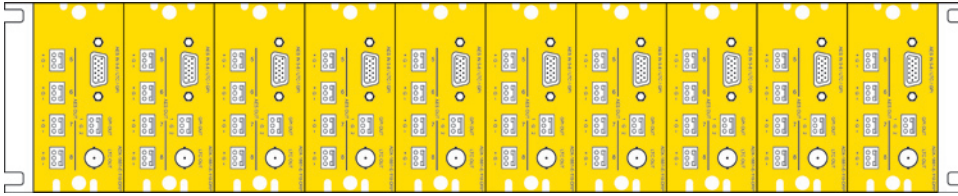


ADX-1881-E-75-DRP



ADX-1881-E-110-DRP

For mounting on Densité: external mount only



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

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

## TECHNICAL 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 110/250 m 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: 110 ohm balanced

### AUDIO AES-3id OUTPUT

Signal: AES-3id (SMPTE 276M)  
 Level: 1.0 Vp-p ±10 %  
 Impedance: 75 ohm unbalanced

### AUDIO AES SIGNAL

Sampling rate: 48 kHz synchronous

### LTC SIGNAL OUTPUT

Signal: Reconstructed LTC from ATC/DVITC  
 Impedance: <55 ohm source, unbalanced  
 1 kohm 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: 30 V max  
 Reverse voltage: 5 V 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: 9.5 W

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

## ORDERING INFORMATION

### Densité 2 frame

ADX-1881 8 AES HD/SD de-embedder  
 ADX-1881-75-DRP Double rear connector panel, 75 ohm  
 ADX-1881-110-DRP Double rear connector panel, 110 ohm

### Densité 3 frame

ADX-1881-3RU 8 AES HD/SD de-embedder (including 3RU adaptor)  
 ADX-1881-75-3DRP Double rear connector panel, 75 ohm  
 ADX-1881-110-DRP-3RU Double rear connector panel, 110 ohm (including 3RU adaptor)

### Options

ADX-1881-E-75-DRP Extended rear for ADX-1881-75-DRP (provides outputs 5-8, GPI & LTC out)  
 ADX-1881-E-110-DRP Extended rear for ADX-1881-110-DRP (provides outputs 5-8, GPI & LTC out)  
 Densité-EXT-MOUNT Mounting plate for extended rear modules (1 plate can hold 10 extended rear modules)  
 ADX-AMX-1881-BOC-6 6' cable (required to link ADX rear module to extended rear module)  
 ADX-AMX-1881-BOC-3 3' cable (required to link ADX rear module to extended rear module)  
 BOC-DE15-4BNC-1 75 ohm digital audio breakout cable

### Remote control

iControl, iControl Solo, RCP-200