

AMX-1881 8 AES HD/SD Embedder

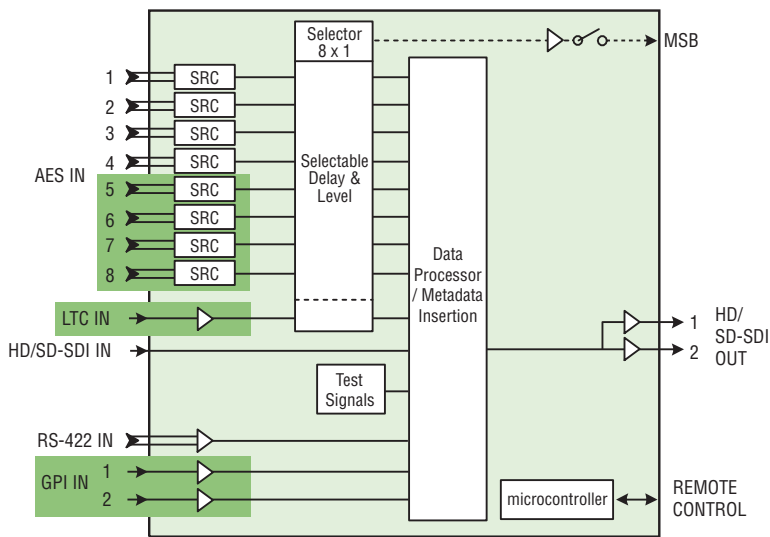


The AMX-1881 is a high-quality interface which embeds up to eight (8) AES 24-bit 48 kHz digital audio signals into a single HD/SD serial digital video signal. The module offers audio and video signal presence detection and reporting, and local or remote configuration and control. A unique feature is its ability to embed Time Code, a serial RS-422 data signal (including Dolby

Metadata) and two GPI status signals into the video signal. The card also serves as a VLI and AFD inserter for an SD or HD signal. The card has built-in audio tone, Time Code and video color bar test signals.

Key Features and Benefits

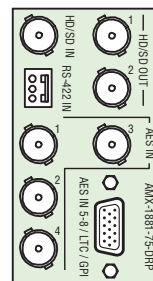
- ⊕ HD/SD-SDI input with automatic equalization
- ⊕ Automatic detection of video input format
- ⊕ Automatic detection of input video loss and switchover to local black for continuity of embedded audio.
- ⊕ VLI and AFD inserter for SD signals and WSS for 625 signals
- ⊕ Active Format Description (AFD) insertion for HD signals
- ⊕ AES inputs: either 110 Ω balanced or 75 Ω unbalanced, depending on rear panel in use
- ⊕ Sample rate conversion for asynchronous AES inputs
- ⊕ Audio input channel gain selectable from -96dB to +12dB by 0.5dB steps
- ⊕ Audio groups insertion/pass-through/delete
- ⊕ Selectable audio delay of up to 3 frames in 1/2 frame steps
- ⊕ Left/Right channels swappable for each AES input
- ⊕ Automatic mute on AES error
- ⊕ Selectable routing of AES signals to audio groups
- ⊕ Dolby E compatible (48kHz synchronous)
- ⊕ 24-bit digital audio embedding
- ⊕ Monitor selector for Densité frame Monitoring Switching Bridge (MSB)
- ⊕ Linear Time Code (LTC) embedding
- ⊕ RS-422 serial data input for embedding as ANC data.
- ⊕ Dolby Metadata insertion using proprietary DID
- ⊕ Sampling of two GPI inputs for embedding as ANC data.



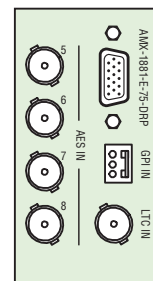
AMX-1881 Functional Block Diagram

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

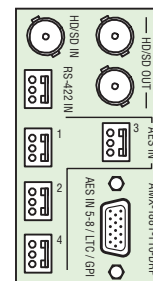
Resolutions	Formats
<i>HD-SDI Formats</i>	
1920 x 1080	59.94i, 50i, 29.97p, 25p, 24p, 23.98p, 29.97 psf, 25psf, 24psf, 23.98psf
1280 x 720	59.94p, 50p
<i>SD-SDI Formats</i>	
525	NTSC
625	PAL



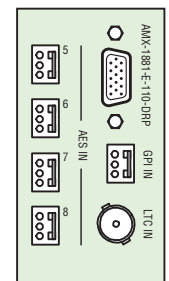
AMX-1881-75-DRP



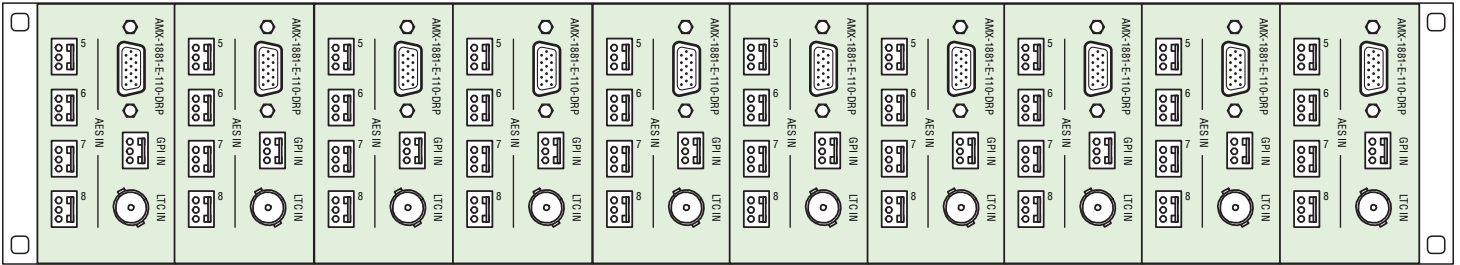
AMX-1881-E-75-DRP
Extended Rear



AMX-1881-110-DRP



AMX-1881-E-110-DRP
Extended Rear



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

Technical Specifications

VIDEO INPUT

VIDEO SIGNAL: HD/SD-SDI
SMPTE 292M/SMPTE 259M
(see opposite page for list of supported formats)

CABLE LENGTH: up to 110m/250m of Belden 1694A

RETURN LOSS: > 15 dB, 5 MHz to 1.5 GHz

AUDIO AES-3ID OUTPUT

SIGNAL: AES-3id (SMPTE 276M)

LEVEL: 0.2 to 2.0 Vp-p

IMPEDANCE: 75 Ω unbalanced

CABLE LENGTH: > 400m

AUDIO AES SIGNALS

SAMPLING RATE: 48kHz synchronous or asynchronous
(32 kHz – 96 kHz)

DOLBY-E RATE: 48kHz synchronous

BITS: 24-bit

LTC SIGNAL

SIGNAL: LTC per SMPTE 12M

IMPEDANCE: < 10kΩ (bridging 600Ω) unbalanced

LEVEL: 0.3 to 5 Vp-p

VIDEO OUTPUT

VIDEO SIGNAL: HD/SD-SDI
(SMPTE 292M / SMPTE 259M)
Audio embedded per SMPTE 299M / SMPTE 272M
LTC embedded as ATC/DVITC (SMPTE RP188/SMPTE 266M)
RS-422 and two GPIs embedded as ANC data per SMPTE 291M (Proprietary DID)

RETURN LOSS: > 15 dB up to 1.5GHz

WIDEBAND JITTER: as per SMPTE-259M and 292M

ANC SERIAL DATA INPUT

SIGNAL: RS-422

LEVEL: 300 mVp-p (min)

RATE: 38.400 or 115.200 bauds

ANC GENERAL PURPOSE INTERFACE (GPI) OUTPUT

SIGNAL (2): Contact closure (opto-isolated), common ground

LEVEL: True = 0 to 0.8 V (max.)
Maximum input voltage = ± 5.5 V

RATE: DC to 250 Hz

PROCESSING PERFORMANCE

SIGNAL PATH: 10-bit video / 24-bit audio

VIDEO DELAY: HD: 4.5 ms / SD: 11.5 ms

AUDIO PROCESSING

DELAY: 875 ms audio insertion delay **

AUDIO DELAY: Up to 3 video frames (1/2 frame steps)

LTC DELAY: Up to 3 video frames (one frame steps)

RS-422 PROCESSING

DELAY: max 500 ms **

GPI PROCESSING

DELAY: 4 video lines **

TEST SIGNALS: Video - color bars 100%
Audio - 1 kHz tone (R steady, L pulsed) -18dBFS (EBU R49, R68)
LTC – 10 second loop starting at 23:59:00:00

POWER: 7 W

*NOTE **: APPLICABLE TO COMBINATIONS OF THIS CARD AND ADX-1881.*

Ordering Information

AMX-1881 8 AES HD/SD Embedder

Choose the following rear connector panels, cable and mounting plate:

- AMX-1881-75-DRP Double Rear Connector Panel (75 Ω)
- AMX-1881-110-DRP Double Rear Connector Panel (110 Ω)
- AMX-1881-E-75-DRP Extended rear for AMX-1881-75-DRP. (Provides inputs 5-8, GPI & LTC In)
- AMX-1881-E-110-DRP Extended rear for AMX-1881-110-DRP. (Provides inputs 5-8, GPI & LTC In)
- 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 AMX rear module to extended rear module).

ADX-AMX-1881-BOC-3 3' cable (required to link AMX rear module to extended rear module).

Housing Frame: Densité, Densité 2

Remote Control:

- iControl Remote Control Software
- iControl Solo Remote Control Software (single user, run on a PC)
- RCP-100 Hardware remote control panel

