

AMX-1842 4 AES HD/SD Embedder

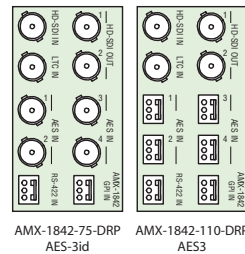


The AMX-1842 is a high-quality embedder which embeds up to four AES 24-bit 48kHz digital audio signals into a single HD/SD serial digital video signal. It includes audio and video signal presence detection and reporting, and local or remote configuration and control. A unique feature is its ability

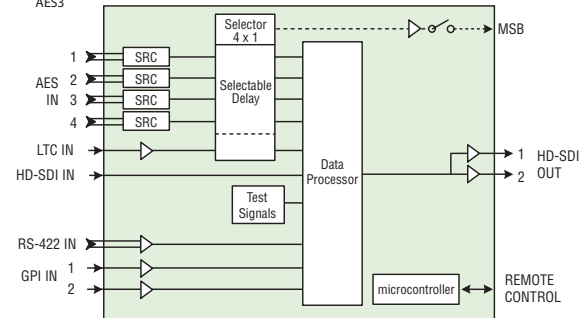
to embed time code, a serial RS-422 data signal and two GPI status signals into the video signal. The card has built-in audio tone, time code and video color bar test signals.

Key Features and Benefits

- ⊕ HD-SDI or SDI input
- ⊕ Automatic EQ for up to 110/250m
- ⊕ Automatic detection of video input format
- ⊕ Continuity of embedded audio on loss of video input
- ⊕ 110Ω balanced or 75Ω unbalanced input
- ⊕ Input SRC to handle asynchronous audio
- ⊕ Audio channel gain selectable
- ⊕ Audio group insertion/bypass/delete
- ⊕ Selectable audio delay of up to 3 frames
- ⊕ Automatic mute on AES error
- ⊕ Selectable routing of AES signals
- ⊕ Left/right channels swappable
- ⊕ Dolby-E compatible
- ⊕ 24-bit digital audio embedding
- ⊕ Linear Time Code (LTC) embedding
- ⊕ RS422 input for embedding as ANC data
- ⊕ GPI inputs for embedding as ANC data



Resolutions	Formats
1920 x 1080	59.94i, 50i, 29.97p, 25p, 24p, 23.98p, 29.97 pfs, 25psf, 24psf, 23.98psf
1280 x 720	59.94p, 50p
525	59.94i
625	50i



AMX-1842 Functional Block Diagram

Technical Specifications

VIDEO INPUT

VIDEO SIGNAL: HD/SD-SDI
SMPTE 292M / SMPTE 259M
CABLE LENGTH: up to 110/250 meters of Belden 1694A
RETURN LOSS: > 15 dB, 5 MHz to 1.485 GHz

AUDIO AES-3ID INPUT

SIGNAL: AES-3id (SMPTE 276M)
LEVEL: 0.2 to 2.0 Vp-p
IMPEDANCE: 75 Ω unbalanced
CABLE LENGTH: > 400 m

AUDIO AES3 INPUT

SIGNAL: AES3
LEVEL: 0.2 to 7.0 Vp-p
IMPEDANCE: 110 Ω balanced
CABLE LENGTH: > 200 m

AUDIO AES SIGNALS

SAMPLING RATE: 48kHz synchronous or asynchronous
DOLBY-E RATE: 48kHz synchronous
BITS: 24-bit

LTC SIGNAL

SIGNAL: LTC per SMPTE 12M
IMPEDANCE: < 10kΩ (bridging 600Ω) unbalanced
LEVEL: 0.2 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 type 1 DID)
RETURN LOSS: > 15 dB up to 1.485 GHz
WIDEBAND JITTER: as per SMPTE-259M and 292M

ANC SERIAL DATA INPUT

SIGNAL: RS-422
LEVEL: 200 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 μs / SD: 11.5 μs
AUDIO PROCESSING DELAY: 875 μs 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 μs*

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: 6 W

**NOTE: APPLICABLE TO COMBINATIONS OF THIS CARD AND ADX-1842/1852*

Ordering Information

AMX-1842 4 AES HD/SD Embedder
Choose one of the following rear connector panels:
AMX-1842-75-DRP Double Rear Connector Panel (75 Ω)
AMX-1842-110-DRP Double Rear Connector Panel (110 Ω)

Housing Frame: Densité, Densité 2
Remote Control: iControl
iControl Solo
RCP-100
Remote Control and Monitoring
Stand-alone Remote Control Software
Remote Control Panel

