

ADX-1842/1852

4 AES HD/SD de-embedder

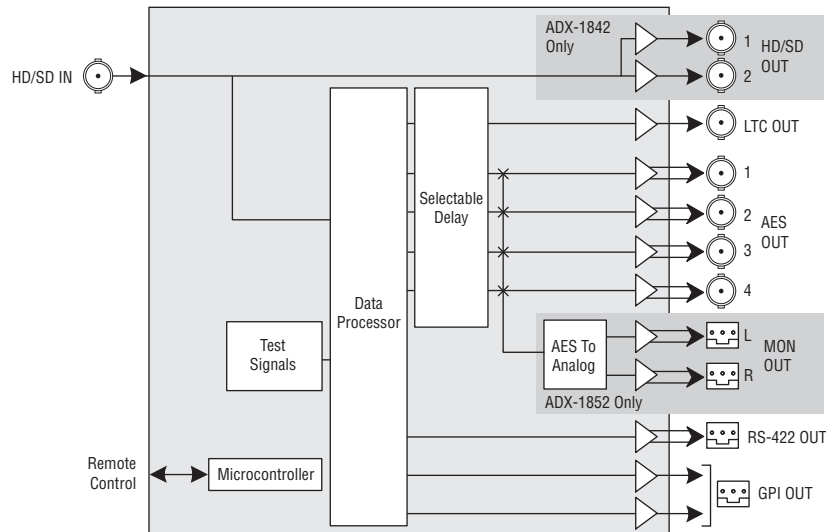


The ADX-1842 is a high-quality de-embedder designed to extract up to four AES 24-bit 48 kHz digital audio signals from a single HD/SD serial digital video signal. A unique feature is its ability to extract Time Code, a serial RS-422 data signal and two GPI status signals from the video signal. The module supports signal presence detection, remote reporting,

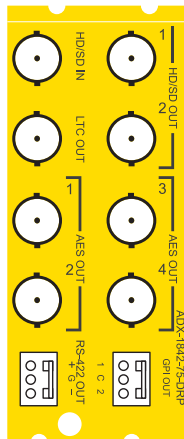
and local or remote configuration and control, and features a built-in audio tone test signal. The ADX-1852 has all of the features of the ADX-1842, excluding the HD/SD-SDI loop through outputs, and it provides an analog audio monitor output for one selectable stereo pair of signals.

KEY FEATURES AND BENEFITS

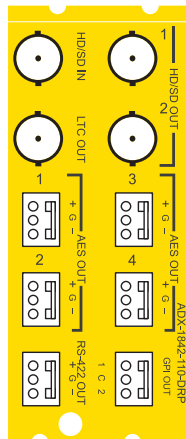
- > HD-SDI or SDI input
- > Auto EQ for up to 110/250 m
- > Automatic detection of video input format
- > Two pass through HD-SDI/SDI video outputs
- > 110 ohm balanced or 75 ohm unbalanced outputs
- > Selectable audio delay of up to 3 frames
- > 24-bit digital audio de-embedding
- > Audio silence output on loss of video input
- > Left/right channels swappable
- > Selectable routing of AES
- > Co-phased audio outputs
- > Dolby-E compatible
- > Monitor output for non-PCM signals
- > LTC output translated from ATC data or DVITC
- > RS-422 serial data output
- > Two opto-isolated GPI outputs



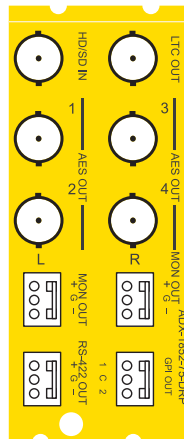
ADX-1842/1852 Functional Block Diagram



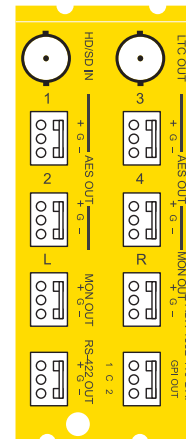
ADX-1842-75-DRP



ADX-1842-110-DRP



ADX-1852-75-DRP



ADX-1852-110-DRP

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-C (see list of supported formats below)
 Embedded audio as per SMPTE 299M/ SMPTE 272M
 Embedded ATC/DVITC as per SMPTE RP 188/SMPTE 266M
 Embedded RS-422 & GPI as per SMPTE 291M (with proprietary Type-1 DID)

Cable length: up to 110/250 m of Belden 1694A
 Return loss: >15 dB up to 1.5 GHz

AUDIO AES-3id OUTPUT

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

AUDIO AES3 OUTPUT

Signal: AES3
 Level: 3.0 V_{p-p} ±10 %
 Impedance: 110 ohm balanced

ANALOG AUDIO OUTPUT (ADX-1851 only)

Quantizing: 24 bits
 Level, 0 dBFS: +18 dBu, ±6 dB (1 dB steps)
 Impedance: 50 ohm
 SNR: >92 dB (A weighting)
 THD: <0,01 %
 Dynamic range: >92 dB
 Crosstalk: <90 dB (20 Hz to 20 kHz)

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 V_{p-p}

RS-422 SIGNAL OUTPUT

Signal: RS-422
 Rate: Reconstruction of signal input to embedder (38,400 or 115,200 Bd)

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)

Video signal: HD/SD-SDI SMPTE 292M/ SMPTE 259M-C
 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 *)
 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 this card and AMX-1842/1852

ORDERING INFORMATION

Densité 2 frame

ADX-1842 4 AES HD/SD de-embedder
 ADX-1842-75-DRP Double rear connector panel, 75 ohm
 ADX-1842-110-DRP Double rear connector panel, 110 ohm

ADX-1852 HD AES de-embedder w/analog audio monitor
 ADX-1852-75-DRP Double rear connector panel, 75 ohm
 ADX-1852-110-DRP Double rear connector panel, 110 ohm

Densité 3 frame

ADX-1842-3RU 4 AES HD/SD de-embedder (including 3RU adaptor)
 ADX-1842-75-DRP-3RU Double rear connector panel, 75 ohm (including 3RU adaptor)
 ADX-1842-110-DRP-3RU Double rear connector panel, 110 ohm (including 3RU adaptor)
 ADX-1852-3RU HD AES de-embedder w/analog audio monitor (including 3RU adaptor)
 ADX-1852-75-DRP-3RU Double rear connector panel, 75 ohm (including 3RU adaptor)
 ADX-1852-110-DRP-3RU Double rear connector panel, 110 ohm (including 3RU adaptor)

Remote control

iControl, iControl Solo, RCP-200 *

* For full list of supported cards, visit <http://www.miranda.com/RCP-200>