

HDC-1801

HD downconverter and DA

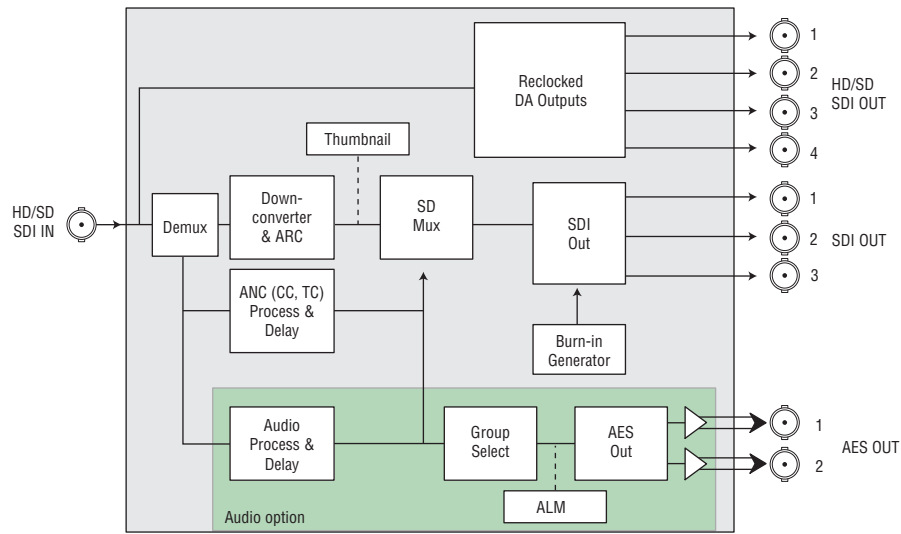
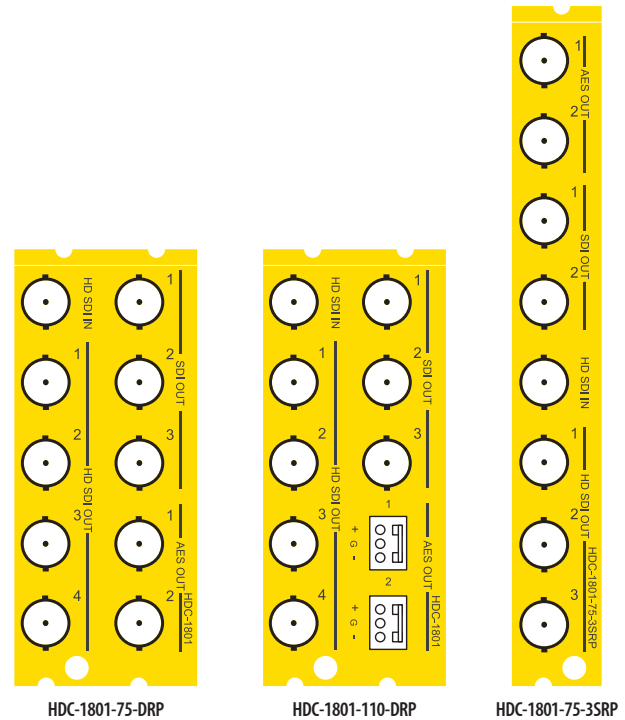


The HDC-1801 is an HD monitoring downconverter as well as a distribution amplifier. The HDC series cards are dual rate for hybrid HD/SD facilities. The DA section provides up to 4 HD reclocked outputs, and the HD downconverter supports multiple formats of signals, such as 1080i, 720p, 23.98 psf. All Metadata (TC, CC) and audio (2 groups) are processed in

HD and SD. When SD is set at the input, the card offers ARC functionality with five presets. The SDI output can add on screen display of Time Code, input format as well as graticules and markers.

KEY FEATURES AND BENEFITS

- > HD/SD dual rate auto-detect input with up to 4 reclocked outputs
- > Up to 3 SDI downconverted/ARC outputs
- > Two AES digital audio outputs (option)
- > HD 10-bit downconverter processing
- > SD 10-bit ARC process with 5 presets
- > Time Code processing and delay
- > Selectable OSD for input format and SD output Time Code
- > Selectable graticules and markers insertion
- > Audio de-embedding/embedding of 2 groups in HD to SD (option)
- > VBI by-pass in SD to SD mode
- > Thumbnails and audio level meters (ALM) (with audio option)
- > Signal presence detection and remote reporting



HDC-1801 Functional Block Diagram



Card streams video thumbnail and ALM via IP

TECHNICAL SPECIFICATIONS

INPUT

Signal: SMPTE 292M (1.485, 1.485/1.001 Gbps)
SMPTE 259M (143, 177, 270 and 360 Mbps)

Input formats: 1080i 59.94, 50, 23.98psf, 25psf, 720p 59.94, 50, 29.97psf

Cable length: HD: 110 m (350') for Belden 1694A
SD: 250 m (850')

Return loss: >15 dB up to 1.5 GHz

DA OUTPUTS (4)

Signal: SMPTE 292M (1.485, 1.485/1.001 Gbps)
SMPTE 259M (143, 177, 270 and 360 Mbps)

Return loss: >15 dB up to 1.5 GHz

Added jitter: <0.2 UI p-p (wideband)

PROCESSING PERFORMANCE

Signal path: 10 bits

Processing delay: <6 ns

SDI OUTPUTS

Signal (3): SMPTE 259M-C (270 Mbps)

Return loss: >15 dB up to 270 MHz

Added jitter: <0.2 UI p-p (wideband)

DIGITAL AUDIO OUTPUTS

AES3

Signal (2): AES-3

Level: 3.8 Vp-p

Impedance: 110 ohm

Jitter: 0.008 UI peak (50 Hz to 100 kHz)

AES-3id

Signal (2): AES-3id (SMPTE 276M)

Level: 1.0 Vp-p

Impedance: 75 ohm unbalanced

Jitter: 0.008 UI peak (50 Hz to 100 kHz)

DIGITAL VIDEO PROCESSING PERFORMANCE

Signal path: 10 bits

Processing delay: DA outputs: 6 ns
HD to SD: 1 frame

HD input to HD-SDI output: <2 μ s

HD input to SD-SDI outputs: Frame rate of 59.94 Hz 34 ms
Frame rate of 50 Hz 41 ms
Frame rate of 23.98 Hz 83 ms

DIGITAL AUDIO PROCESSING PERFORMANCE

Quantization: 20-24 bits

Groups: 1

Sampling: 48 kHz

ELECTRICAL

Power: 9 W

ORDERING INFORMATION

Densité 2 frame

HDC-1801	HD downconverter & distribution amplifier
HDC-1801-75-DRP	Double rear connector panel with audio output, 75 ohm
HDC-1801-110-DRP	Double rear connector panel with audio output, 110 ohm

Densité 3 frame

HDC-1801-3RU	HD downconverter & distribution amplifier (including 3RU adaptor)
HDC-1801-75-DRP-3RU	Double rear connector panel with audio output, 75 ohm (including 3RU adaptor)
HDC-1801-110-DRP-3RU	Double rear connector panel with audio output, 110 ohm (including 3RU adaptor)
HDC-1801-75-3SRP	Single rear connector panel with audio output, 75 ohm

Options

HDC-1801-OPT-AUD	Optional audio (embed & AES outputs)
HDC-1801-OPT-LS	Line Scope option for HDC-1801

Remote control

iControl, iControl Solo, RCP-200 *

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