

The 520AE8-HD Embedder embeds eight AES input signals (16 channels) as four groups into a 1.5Gb/s HD video signal (as specified in ST 299-1) or into a 270Mb/s serial SD video signal (as defined by SMPTE ST 272).

Several optional processing steps can be applied to the input audio before it is embedded. If needed, the eight AES input signals can be processed by 8 on board sample-rate converters (SRCs). This processing will automatically detect Dolby-E® /AC-3 inputs and bypass the SRCs to maintain the integrity of the non-PCM audio data. Also, audio channels can be independently rearranged (using on-board 16x16 router) in any desired way before embedding.

The 520AE8-HD module also handles Dolby-E® Metadata. The module can optionally embed Metadata in the vertical ancillary data space (VANC) of HD/SD signals for downstream devices according to SMPTE RP2020.

The 520AE8-HD is housed in the 3RU 500FR **exponent** frame that will hold up to 16 modules.



► Features & Benefits

- Fast locking AES receivers
- Headphone jack with monitoring stereo channel
- Card edge display for status & audio channel peak levels bar graphs
- Dolby-aware SRC (sample rate converters)
- Flexible audio channel router (16x16)
- VistaLINK® -capable for remote monitoring via SNMP (using VistaLINK® PRO) when installed in 500FR frame with 500FC VistaLINK® Frame Controller

Inputs

- SMPTE ST 292-1 (1.5Gb/s serial digital), or SMPTE ST 259-1
- Eight Channel AES (unbalanced)
- Dolby Metadata (RS-422/485)

Outputs

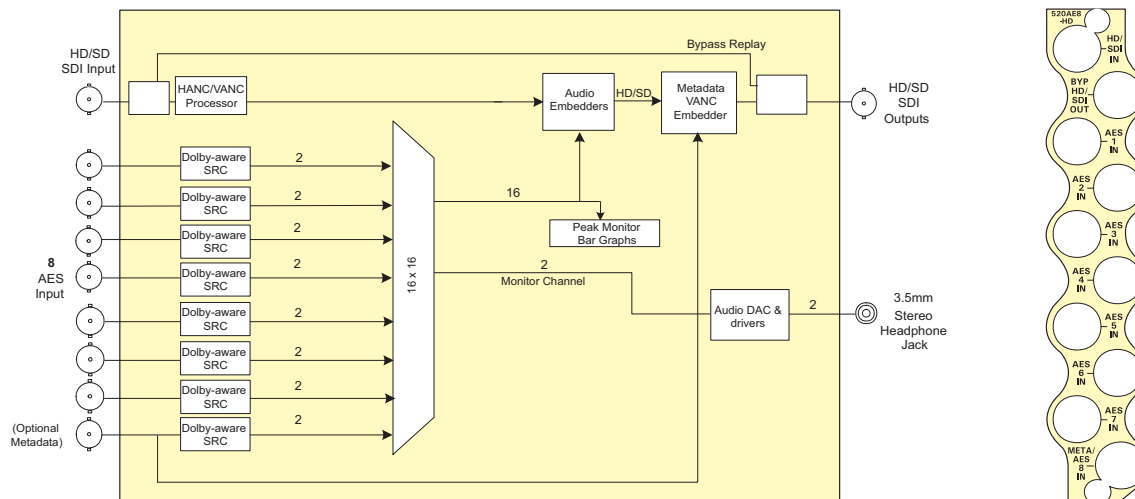
- Program output bypass relay protected
- One processed HD output

Controls

- Audio channel selection
- Embedded group enable/disable

Card Edge LEDs

- Module Status
- Video Signal presence
- AES input presence/errors



► Specifications

Serial Video Input: Standard:	SMPTE ST 292-1, (1080i/60, 1080i/59.94, 1080i/50, 1080p/30 (sF), 1080p/29.97 (sF), 1080p/25 (sF), 1080/24 (sF), 1080/23.98 (sF), 720p/23.98, 720p/24, 720p/50, 720p/60, 720p/59.94, 1035i/60, 1035i/59.94 SMPTE ST 259M-1-C (270Mb/s) 525 or 625 line component	DC Offset: Rise and Fall Time: Overshoot: Wide Band Jitter: Metadata:	0V ±0.5V Per standard < 10% of amplitude < 0.2 UI Embedded as per SMPTE 2020	Metadata Input: Type: Connector: Baud Rate:	Dolby-E® Metadata SMPTE RDD6 1 BNC per IEC 61169-8 Annex A (adapter to DB9 available) 115,200 baud
Connector: Equalization:	BNC per IEC 61169-8 Annex A Automatic 100m @ 1.5Gb/s with Belden 1694A (or equivalent), 25m when bypass relay engaged	AES Input: Standard: Number of Inputs: Connector: Input Level: Input Impedance: Return Loss: Equalization:	SMPTE ST 276-1 8 BNC per IEC 61169-8 Annex A 0.1 to 2.5V p-p 75W > 25dB 100kHz to 6MHz Automatic to 1000m with Belden 1694A (or equivalent) @ 48kHz AES signal 48kHz ±100ppm	System Performance: Embedding Latency:	600µs nominal 3ms (with SRC), 0.2ms (SRC off)
Processed Serial Video Output: Standard: Number of Outputs: Connector: Signal Level:	Same as input or user controlled 1 BNC per IEC 61169-8 Annex A 800mV nominal	Sample Rate:	48kHz ±100ppm	Electrical: Voltage: Power: EMI/RFI:	+12V DC 10W Complies with FCC Part 15 Class A, EU EMC Directive
				Physical (number of slots):	1

► Ordering Information

520AE8-HD HD/SD-SDI Audio Embedder with 8 unbalanced AES inputs

Enclosures
500FR
S501FR

exponent
Compact High Density Distribution Frame
Standalone enclosure

Accessories
500FC VistaLINK® Frame Controller
CP-2116E-H Remote Control Panel
CP-2232E Remote Control Panel