

The 520AE4-HD Audio Embedder embeds 4 AES into 2 specified groups as defined by SMPTE 299M in a 1.5Gb/s serial HDTV or as defined by SMPTE 272M in a 270Mb/s serial SDTV video signal.

Several optional processing steps can be applied to the input audio before it is embedded. If needed, the 4 stereo AES input channels can be processed by 4 on-board sample rate converters (SRCs). The SRCs can be configured to automatically respect Dolby-E® & Dolby Digital adding to ease of use & flexibility. The 8 discrete audio channels can be re-arranged in any arbitrary manner with on-board 8x8 router. The audio channels may be optionally and independently delayed up to 3 seconds.

This device also handles the Dolby-E® Metadata. Metadata is optionally embedded in VANC for downstream devices according to SMPTE RP2020.

The 520AE4-HD is housed in the 3RU 500FR **exponent** frame that will hold up to 16 modules.

►Features & Benefits

- Fast locking AES receivers
- Configurable or automatic SRCs on AES inputs
- Headphone jack with monitoring stereo channel
- Card edge display for status & audio channel peak levels bargraphs
- Audio channel router (8x8)
- VistaLINK® -capable for remote monitoring via SNMP (using VistaLINK® PRO) when installed in 500FR frame with 500FC VistaLINK® Frame Controller

Inputs

- SMPTE 292M - (1.5Gb/s), or SMPTE 259M - (270Mb/s)
- 4 Channel AES (unbalanced)
- 1 BNC for Dolby Metadata (RS-422/485)

Outputs

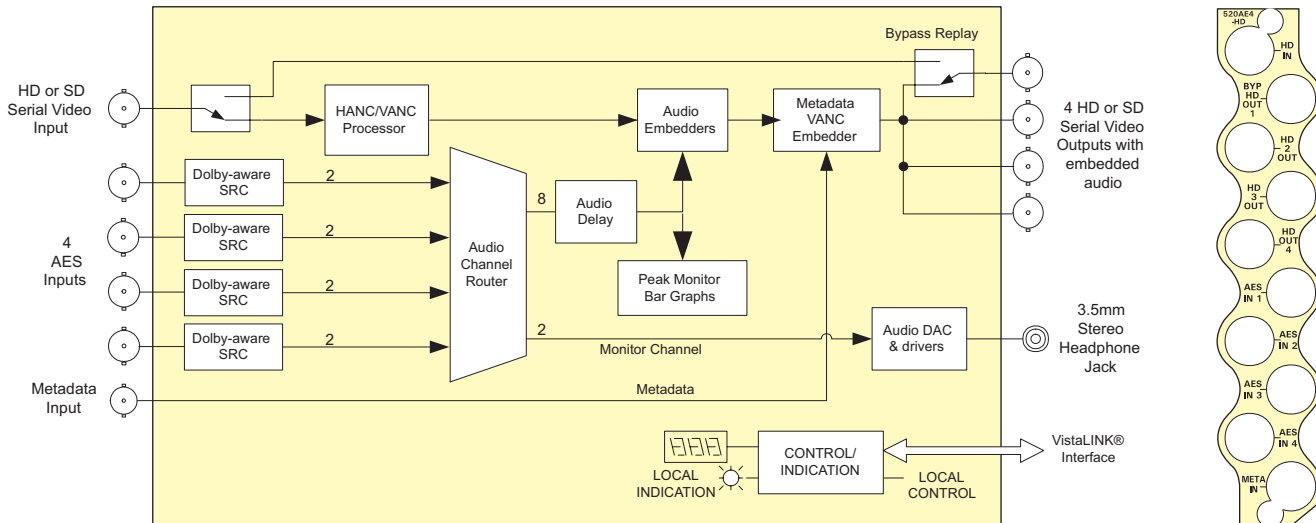
- 4 processed HD outputs
- Program output bypass relay protected

Controls

- Audio group selection
- Audio channel selection

Card Edge LEDs

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



►Specifications

Serial Video Input:		DC Offset: 0V ±0.5V		System Performance:	
Standard:	SMPTE 292M, 1080i/60, 1080i/59.94, 1080i/50, 1080p/30 (sF), 1080p/29.97 (sF), 1080p/25 (sF), 1080p/24 (sF), 1080p/23.98 (sF), 720p/50, 720p/60, 720p/59.94, 1035i/60, 1035i/59.94	Rise and Fall Time:	Per standard	Embedding Latency:	600µs nominal
Connector:	SMPTE 259M-C (270Mb/s) 525 or 625 line component	Overshoot:	< 10% of amplitude	Audio Delay Range:	0 to 3 seconds
Equalization:	BNC per IEC 61169-8 Annex A Automatic 100m @ 1.5Gb/s with Belden 1694A (or equivalent), 25m with bypass relay installed	Wide Band Jitter:	< 0.2 UI	Electrical:	
		AES Input:		Voltage:	+12V DC
		Standard:	SMPTE 276M	Power:	10W
		Number of Inputs:	4	EMI/RFI:	Complies with FCC Part 15 Class A, EU EMC Directive
		Connector:	BNC per IEC 61169-8 Annex A	Physical:	
		Input Level:	0.1 to 2.5V p-p	Number of slots:	1
		Input Impedance:	75Ω		
		Return Loss:	> 25dB 100kHz to 6MHz		
		Equalization:	Automatic to 1000m with Belden 1694A (or equivalent) @ 48kHz AES signal		
Processed Serial Video Output:		Sample Rate:	48kHz ±100ppm		
Standard:	Same as input	Metadata Input:			
Number of Outputs:	4	Type:	Dolby-E® Metadata SMPTE RDD6		
Connector:	BNC per IEC 61169-8 Annex A	Connector:	1 BNC per IEC 61169-8 Annex A		
Embedded Audio:	SMPTE 272M or 292M	Baud Rate:	115,200 baud		
Embedded Metadata:	SMPTE 2020M				
Signal Level:	800mV nominal				

►Ordering Information

520AE4-HD HD/SD-SDI Audio Embedder with 4 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