

## 8 CHANNEL EMBED DeEMBED + AFD INSERTION MODEL SED-858



- ◆ HD/SD SDI Video In
- ◆ AFD Pass-thru
- ◆ Analog-AES Audio I/O
- ◆ 8 CH Embed
- ◆ FD Delete
- ◆ AFD Auto Insert
- ◆ 8 CH DeEmbed
- ◆ Remove All Audio
- ◆ Analog I/O Level Cont
- ◆ Embed Audio Delay
- ◆ AFD Display
- ◆ 3Gb/s
- ◆ ANC Data Detect/Delete
- ◆ Save Multi Config
- ◆ AES Audio Detect
- ◆ Dolby E Compatible
- ◆ AFD Insert
- ◆ 3 G, Level A & B

The SED-858, is a one RU chassis, that can embed/de-embed audio and monitor/insert AFD (Active Format Description, SMPTE 2016-1), ancillary data in an SDI signal. The video input can be SD-SDI (SMPTE 259M), or HD-SDI (SMPTE 292M), (1.5 or 3Gb/s) and is auto detected. The SED-858 will embed or de-embed up to eight audio channels (4 AES inputs), into/from two groups in the horizontal ancillary region of the SD (SMPTE 272M-C), or HD (SMPTE 299M) output signal. This unit is compatible with progressive segmented frame video, and automatically generates the Payload Identifier (SMPTE 352M), on the video output.

The SED-858 includes 8 input and output channels of: AES balanced, AES unbalanced, balanced analog, AES embed (input), and AES de-embed (output). The digital inputs are auto detected and sample rate converted to 48 KHz for embedding. The analog inputs are received in pairs and converted into 4 AES streams, with a volume control included for both inputs and outputs. The inputs, including de-embed, can be assigned, in 8 channel groups by type, to any of the outputs, excluding embed. Any mix of 4 inputs, including de-embed, can be embedded into the video output. An 8 channel embed re-mixer allows mixing control over single channels, including mute. Individual embedded AES streams can be delayed up to 1 second. Embedding and de-Embedding may be performed simultaneously, and use 24-bit AES

audio processing, (inputs may be 20-bit). Existing embedded audio can be deleted, replaced, or passed through, but matching group's channels will be replaced. This allows one unit to embed 8 channels to groups 1 and 2, and a second unit could embed an additional 8 channels to groups 3 and 4.

The AFD data can be monitored, inserted, deleted, or auto inserted, (insert only if no AFD detected). The AFD setting and the line number to insert the data on are entered by the user. All the non-audio ancillary data types present in the input video can be displayed by their DID/SDID codes, and up to 4 of them, selected by the user, can be removed from the output video.

The SED-858 set-up features are controlled by a rotary encoder, and displayed on a VFD, with most functions accessible using front panel buttons. LEDs on the front panel show the status of the unit at a glance. 4 presets may be used, with changes saved into flash, for multiple configurations. Each unit requires chassis specific breakout cables that expand the number of available connections beyond what would fit on a standard plug-in card system. The breakout connectors include two 25 pin male and one 25 pin female that provides for AES and analog audio I/O. The unit ships with one cable for AES Balanced. The other cables for analog audio I/O are optional items and should be purchased separately.

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# HD SD SDI EMBEDDER De-EMBEDDER MODEL SED-858

**INPUT:**

**SDI Video:** ..... One, 270Mb/s, 1.485Gb/s and 2.97Gb/s

**AES:**

Balanced: . . . 8 Channel (4 AES3-1992) 25 Pin D-Sub, Requires Cable Adapter Assy. for XLR Inputs  
 Level: ..... 1V Minimum, 110  $\Omega$   
 Unbalanced: ..... 8 Channels, 4 BNCs AES3-ID 75  $\Omega$  BNC  
 Level: ..... 800mV to 1.2V  
 Sample Rates: ..... 48 KHz

**Analog:**

Balanced: . . . . 8 Channel 25 Pin D-Sub Connectors, Requires Cable Adapter Assy. for XLR Inputs  
 Impedance: ..... 110  $\Omega$   
 Connector: ..... 25 Pin D-Sub, Requires Adapter Cable Assembly for XLR  
 Common Mode Rejection Ratio: ..... >55db  
 Signal-to-Noise Ratio: ..... >60db

**OUTPUTS:**

**SDI Video:** ..... Two, 270Mb/s, 1.485Gb/s and 2.97Gb/s

**AES:**

Balanced: 8 Channel (4 AES3-1992) 25 Pin D-Sub, Requires Cable Adapter Assy. for XLR Outputs  
 Level: ..... 4.2 volts p-p typical at 110  $\Omega$   
 Unbalanced: ..... 4 AES3-ID 75  $\Omega$  BNC  
 Level: ..... 1V p-p typical at 75  $\Omega$   
 Sample Rate: ..... 48 KHz  
 Coupling: ..... DC  
 Jitter: ..... <0.01UI

**Analog:**

Balanced: . . . . 8 Channel 25 Pin D-Sub Connectors, Requires Cable Adapter Assy. for XLR Outputs  
 Impedance: ..... 600  $\Omega$   
 Connector: ..... 25 Pin D-Sub, Requires Adapter Cable Assembly for XLR

**FRONT PANEL CONTROLS:**

3 embed all options: ..... Lit Momentary Push Button  
 6 menu selects: ..... Lit Momentary Push Button  
 Bypass: ..... Lit Momentary Push Button  
 Readout of timing adjustments: ..... VFD Display  
 Data Select: ..... Rotary Encoder

**ENVIRONMENTAL:**

Temperature ..... 0c to 50cC Ambient  
 Humidity: ..... 10% to 90% non-condensing  
 Power; ..... 3W

**MECHANICAL:**

Height: ..... 1.75 Inches  
 Width ..... 19.0 Inches  
 Length: ..... 10 Inches  
 Weight: ..... 3 Pounds

Specifications and designs are subject to change at any time without notice.



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