

4 Channel Audio Processor Sub Module for 8400 and 8500

Audio Processing

The 8410 Audio Processor is a sub module option for the 8400 or 8500. Its flexible architecture addresses a wide range of audio handling needs. The 8410 handles in-line shuffling perfectly or you can use its AES I/O to bring in digital audio sources. All audio processing is performed at the full 24 bit resolution of the system by a digital signal processor (DSP).

Mix, Swap and Shuffle

The 8410 has a full-featured, four-channel audio mixer for handling embedded audio. Precise control over audio level is provided for each input. A gain of up to +12 dB can be applied to signals with low input levels. Signal phase inversion is selectable on a channel-by-channel basis to correct phase errors in incoming material.

Lip Sync Preservation

The 8410 has been designed to provide superior handling of embedded audio. The disembedder on the input side follows the timing of the SDI input, even if that input is asynchronous to the house reference. The embedder on the output side is synchronous to house. This allows embedded audio to be safely bypassed around the video framestore with the lip sync properly preserved. Embedded audio content is properly resynchronized.

Features

- » AES I/O
- » 24 bit audio processing
- » Embedded Audio Input (Four Channels)
- » Embedded Audio-Friendly Synchronization
- » Resynchronize embedded audio content
- » Mix, Shuffle, Level Adjust of embedded audio
- » Fully adjustable audio levels
- » Complete shuffling and mixing between all channels
- » Phase inversion selectable on a channel basis
- » Tracking Audio Delay
- » User-adjustable Bulk Audio Delay
- » Built-in tone generator
- » 100 MHz DSP
- » Use with 8400 and 8500 modules

AES/EBU Digital Inputs

Number	Two (total of 4 channels)
Signal Type	AES3id
Connectorization	Coaxial, 75 Ω
Bit Depth	20 and 24 bit
Sample Rate	30 kHz to 100 kHz (sample rate converted internally to 48 kHz)
Crosstalk	<144 dB
Dynamic Range	>144 dB
Reference Level	-18 or -20 dBFS (selectable)
AC-3, Dolby E	Supported when inputs are synchronous

Embedded Inputs

Number	One (from SDI video input)
Signal Type	SMPTE 274M compliant
Channels	Selectable to any of 4 groups
Bit Depth	Four 20 and 24 bit

AES/EBU Digital Outputs

Number	Two (total of 4 channels)
Signal Type	AES3id
Connectorization	Coaxial, 75 Ω
Bit Depth	20 and 24 bit
Sample Rate	48 kHz
Reference Level	Synchronous to Video output -18 or -20 dBFS (selectable)

Embedded Output

Number	Two (or more, depending on main module)
Signal Type	SMPTE 274M compliant
Group Assign	Cascade, or Replace any two of four groups
Channels	Four
Bit Depth	24 bit

