

# SAX-4240

Dual Channel 12G-SDI Embedder /  
De-embedder and Frame  
Synchronizer

2024 Datasheet

The **SAX-4240** is a reliable and versatile dual-channel 12G/6G/3G/HD/SD-SDI audio embedder and de-embedder. It offers two independent processing paths for frame synchronization and can apply delays of up to 50 frames. Additionally, it includes two slots for optional digital or analog audio input and output modules.

The audio shuffling and processing capabilities are highly convenient and flexible, thanks to the built-in crosspoint. This feature allows users to embed external audio channels into SDI inputs, route audio outputs from embedded audio simultaneously, and shuffle audio within an SDI input or between two SDI inputs. The audio processor core can delay audio pairs by up to 10 seconds and apply the desired gain.

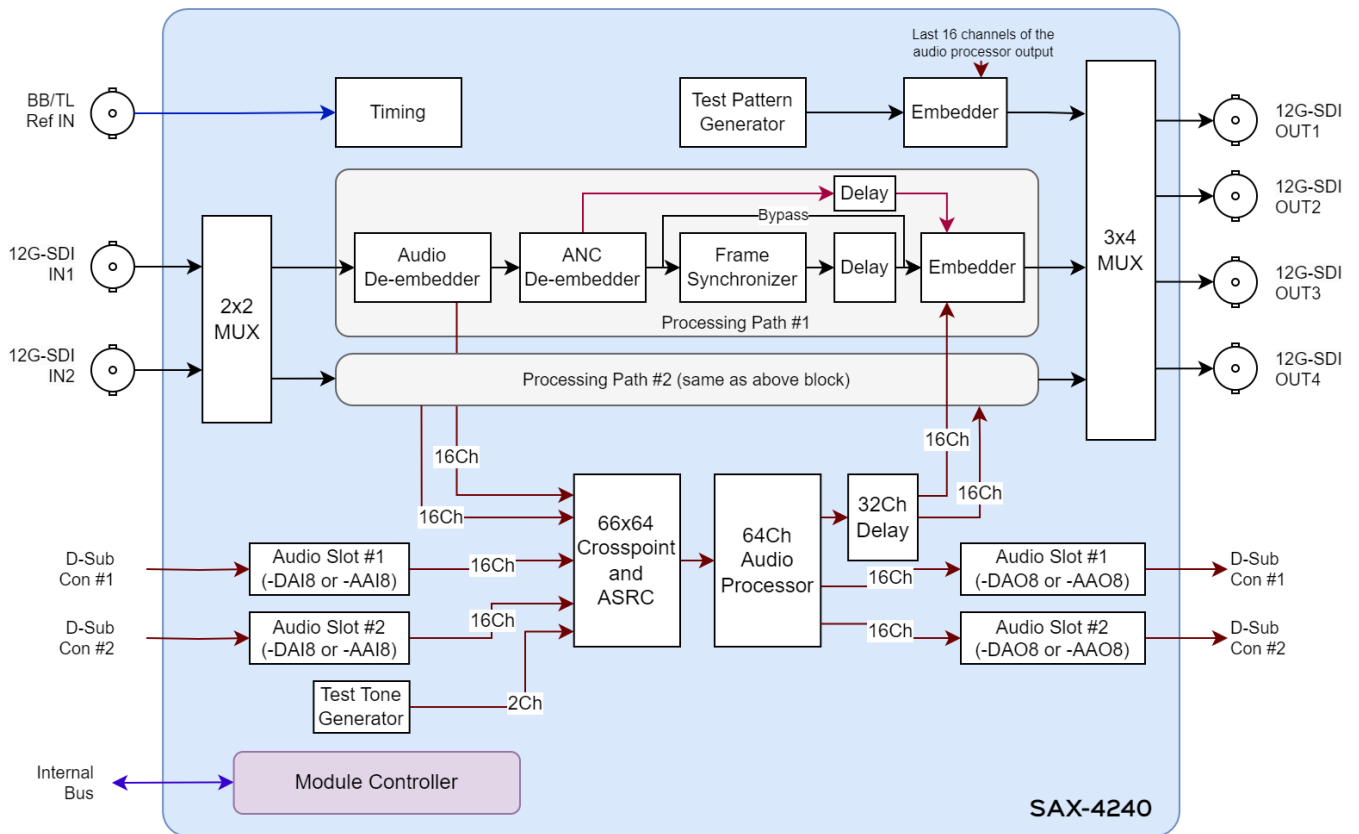
The **SAX-4240** also supports ancillary data pass-through (including ST352, SCTE104, Time Code, HDR, OP42, OP47), timing adjustments, and an internal test tone/pattern generator. Control and monitoring are facilitated through the user-friendly web-based interface and the frame's front control panel.

## Key Features

- Independent dual channel operation
- Eight pair audio embedder and de-embedder
- Two I/O slots for analog or AES audio
- Frame synchronizer with tri-level or bi-level reference input
- Horizontal and vertical timing adjustment respect to reference input
- Auto freeze, black, last frame, or pattern on input video loss
- Internal pattern and test tone generator
- Channel-wise built-in audio crosspoint
- Audio delayer: Up to 10 seconds (1ms steps)
- Video delayer: Up to 50 frames
- Easy configuration via web-based user interface
- Firmware Remote Upgrade

- Input and output configurable MUX to ease changes in cabling
- Ancillary data transparency

## Block Diagram



## System Requirements

Type	Product	Description
Frame	SRM-0655	3RU Frame with Controller

## Ordering Information

Product	Description	Type
SAX-4240	Dual Channel 12G-SDI Embedder / De-embedder and Frame Synchronizer	Main Board
SAX-4240-3DRP	Double Slot Back-panel for SAX-4240 (compatible with SRM-0655)	Back-panel
MOD-APP4K-DAI8	8-Channel Digital Stereo Audio Input Module	Option for Audio I/O Slot
MOD-APP4K-DAO8	8-Channel Digital Stereo Audio Output Module	Option for Audio I/O Slot
MOD-APP4K-AAI8	8-Channel Analog Mono Audio Input Module	Option for Audio I/O Slot
MOD-APP4K-AAO8	8-Channel Analog Mono Audio Output Module	Option for Audio I/O Slot

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