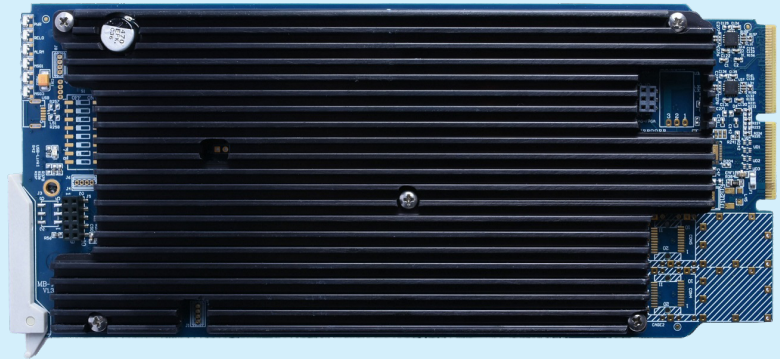


UDC-3455

3G/HD/SD Up/Down/Cross Converter
with Audio Embedder &
De-embedder

2024 Datasheet



The UDC-3455 is a broadcast quality modular up/down/cross converter that can convert video format between 3G, HD, and SD. Frame synchronization (with video timing adjustments), color correction, image enhancement, and aspect ratio conversion (with AFD support) are supported in the video processing path.

The module contains an audio crosspoint, giving the user great flexibility in selecting the source of embedded audio pairs and audio outputs. Advanced audio processing, including delay, gain, and L/R swap, can be applied to the audio sources from de-embedded audio and external AES and analog inputs.

Video pattern and audio tone generation can help users test the chain without a valid source. The module also can compensate for an input loss with black, freeze, or pattern on the output. Support of common ancillary standards and an option to use fiber I/O via an SFP module, besides mentioned features, make UDC-3455 an excellent option for most signal chains. Control and monitoring can be done using the web-based user interface, and frame front panel.

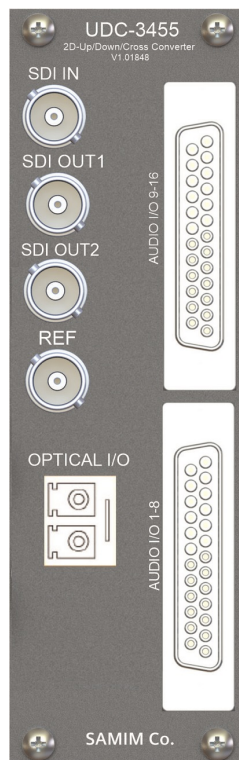
Key Features

- High quality 3G/HD/SD up/down/cross converter
- Aspect Ratio Conversion respect to AFD metadata and AFD generation
- Advanced video de-interlacing
- Frame synchronizer with tri-level or bi-level reference input
- Horizontal/Vertical timing adjustment respect to reference input
- Auto freeze, black, last frame, or pattern on input video loss
- Video processor: Noise removal, edge enhancer, and brightness, contrast, hue, saturation control
- Audio processor (16 pairs): Any to any input/output pair routing, gain control on each channel, Invert and mute control on each channel, swap left/right audio of each pair,

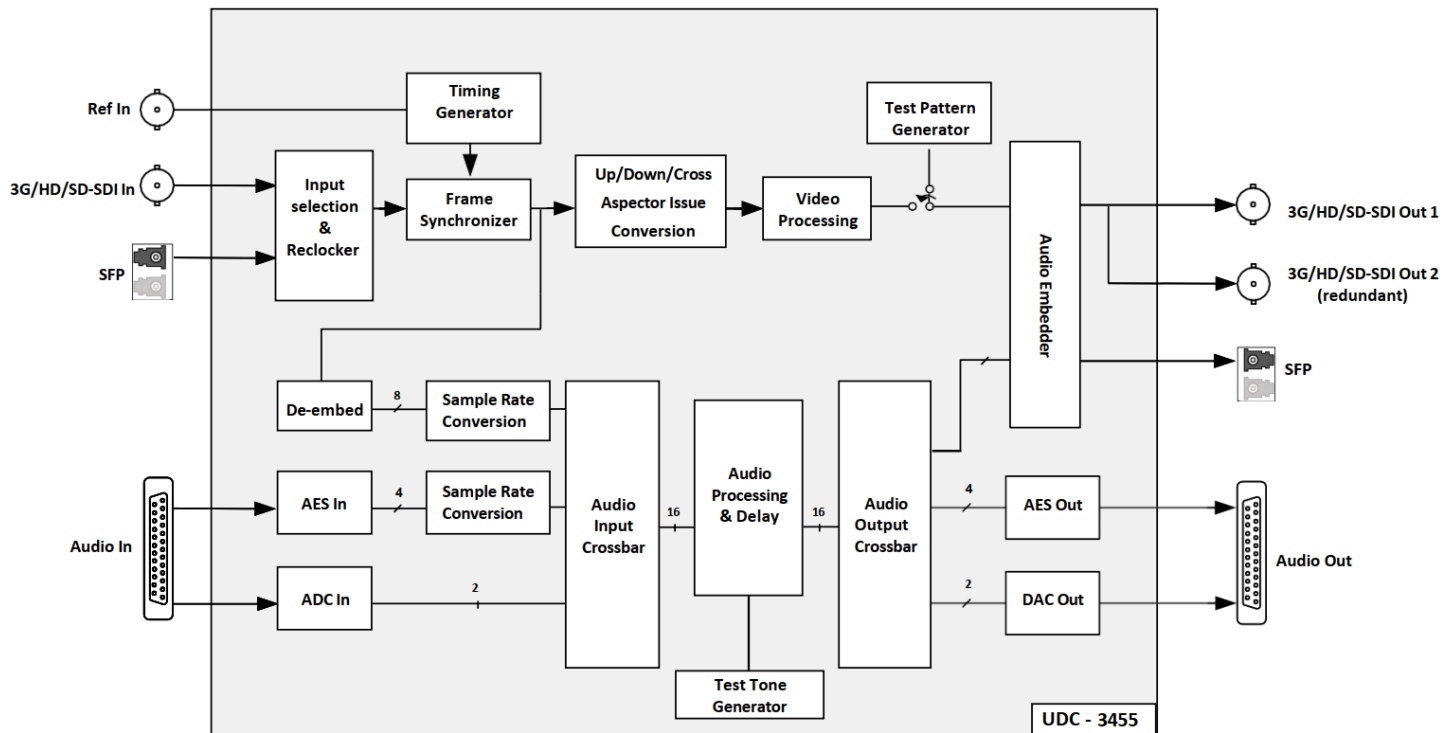
silence and overload detection

- Audio delayer (16 pairs): Up to 10 seconds for each embedded pair (1ms steps)
- Four group audio embedding and de-embedding
- Up to x4 AES inputs and x4 AES outputs
- Up to x4 analog mono audio inputs and x4 analog mono audio outputs
- Internal pattern and test tone generator
- Easy configuration via web-based user interface
- Firmware Remote Upgrade
- Optical I/O via an SFP *
- Two identical outputs (BNC)
- Two audio I/O slots
- Ancillary data pass through and re-map (SCTE104, OP42, OP47, Time Code) *

Back Panel



Block Diagram



System Requirements

Type	Product	Description
Frame	SRM-0645	1RU Frame with Controller
	SRM-0655	3RU Frame with Controller

Ordering Information

Order Code	Description	Type
UDC-3455	3G/HD/SD-SDI Up/Down/Cross Converter with Audio Embedder and De-embedder Main Board	Main Board
UDC-3455-3DRP	Back-panel for UDC-3455 (compatible with SRM-0655)	Back panel
UDC-3455-1DRP	Back-panel for UDC-3455 (compatible with SRM-0645)	Back panel
MOD-APP-DAI4O4	4-Channel Digital Stereo Audio Input + 4-Channel Digital Stereo Audio Output Module	Option for Audio I/O Slot #1
UDC-3455-AAI4O4	4-Channel Analog Mono Audio Input + 4-Channel Analog Mono Output Module	Option for Audio I/O Slot #2
FBR-0259	Video SFP Transceiver, 270M~2.97Gbps, 10km, TX 1310nm, RX 1260~1620nm	Accessory

With over two decades of extensive experience in the broadcast and media industry, Samim Group has emerged as a rapidly growing manufacturer and developer of professional-grade hardware and software solutions that cater to Broadcast Production Infrastructure, Intercom Systems, and Media Business Automation. We remain attuned to the latest technological advancements, ensuring we deliver high-standard solutions and products that can be marketed globally.

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✉ sales@samimgroup.com
 🌐 www.samimgroup.com