

DSC 3G-3G A

3G-SDI TO 3G-SDI SCALER WITH
AUDIO EMBEDDING AND
DE-EMBEDDING

- ▶ 3G-SDI video cross conversion
- ▶ Accepts 3G-SDI/HD-SDI/SDI signals up to 2.97 Gbps
- ▶ Two simultaneous 3G-SDI/HD-SDI/SDI outputs
- ▶ Advanced scaling engine with 30-bit processing and 1080i deinterlacing
- ▶ SDI audio embedding
- ▶ SDI audio de-embedding
- ▶ Selectable output rates from 480i and 576i to HDTV 1080p/60 and 2K
- ▶ Input equalization and reclocking on buffered loop-through
- ▶ Genlock input with loop-through
- ▶ USB and RS-232 control ports



The Extron DSC 3G-3G A is a high performance scaler that converts between 3G-SDI, HD-SDI, and SDI resolutions and frame rates. It accepts SMPTE video resolutions and generates output rates from 480i and 576i to HDTV 1080p/60 and 2K. The DSC 3G-3G A is ideal for applications with professional video systems, including video editing and production, rental and staging, medical imaging, and large-scale presentations.



Extron Electronics
INTERFACING, SWITCHING AND CONTROL

DESCRIPTION

The Extron **DSC 3G-3G A** is a high performance 3G-SDI scaler that converts between 3G-SDI, HD-SDI, and SDI resolutions and frame rates. It accepts, scales, and outputs SMPTE video resolutions from 480i and 576i up to 1080p/60 and 2K. The DSC 3G-3G A features advanced Extron video signal processing with 1080i deinterlacing and Deep Color processing for optimal image quality. The DSC 3G-3G A also provides flexible audio capability with analog audio embedding, de-embedding, and level adjustments. Dual SDI outputs, genlock, and an input loop-through facilitate integration in demanding professional environments while the compact enclosure simplifies installation. The DSC 3G-3G A is ideal for applications with professional video systems, including video editing and production, rental and staging, medical imaging, and large-scale presentations.

FEATURES

- ▶ **3G-SDI video cross conversion**
- ▶ **Accepts 3G-SDI/HD-SDI/SDI signals up to 2.97 Gbps** – The DSC 3G-3G A accepts video formats from 480i and 576i to HDTV 1080p/60 and 2K. It complies with SMPTE 259M, 292M, 424M, and ITU digital video standards.
- ▶ **Two simultaneous 3G-SDI/HD-SDI/SDI outputs**
- ▶ **Advanced scaling engine with 30-bit processing and 1080i deinterlacing**
- ▶ **SDI audio embedding** – Analog stereo audio can be embedded onto the SDI outputs.
- ▶ **SDI audio de-embedding** – Any pair of AES audio channels from the SDI input can be extracted to the analog output.
- ▶ **Input equalization on buffered loop-through** – Automatically equalizes incoming 3G-SDI signals, and reshapes and restores signals on the buffered loop-through.
- ▶ **Aspect ratio control**
- ▶ **Genlock input with loop-through**
- ▶ **Auto-Image™ setup**
- ▶ **Auto Input Memory**
- ▶ **On-screen menus**
- ▶ **Internal video test patterns and pink noise generator**
- ▶ **RS-232 control port**
- ▶ **Front panel USB configuration port**
- ▶ **1U, half rack width metal enclosure**
- ▶ **Highly reliable, energy-efficient internal universal power supply**

SPECIFICATIONS

VIDEO INPUT		
Number/signal type	(1) 3G/HD/SD-SDI digital video	
Resolution range	480i, 576i, 720p, 1080i, 1080p, 2K (2048x1080)	
Data rates	270 Mbps, 1.485 Gbps, 2.970 Gbps	
Input cable equalization	Automatic for up to -30 dB of cable loss	
3G-SDI	60 m (200') using Extron RG6 cable 45 m (150') using Extron RG59 cable	
HD-SDI	120 m (400') using Extron RG6 cable 90 m (300') using Extron RG59 cable	
SD-SDI	150 m (500') using Extron RG6 cable 120 m (400') using Extron RG59 cable	
Operation standards	SMPTE 259M-C, 292M, 424M	
VIDEO OUTPUT		
Number/signal type	(2) 3G/HD/SD-SDI digital component video	
Scaled resolutions	480i ⁷ , 576i ⁶ , 720p ^{1,2,3,4,5,6,7,8} , 1080i ^{6,7,8} , 1080p ^{1,2,3,4,5,6,7,8} , 2K (2048x1080) ^{1,2,3,4,5,6,7,8}	
Data rates	270 Mbps, 1.485 Gbps, 2.970 Gbps	
1 = at 23.98 Hz, 2 = at 24 Hz, 3 = at 25 Hz, 4 = at 29.97 Hz, 5 = 30 Hz, 6 = at 50 Hz, 7 = at 59.94 Hz, 8 = at 60 Hz		
EXTERNAL SYNC (GENLOCK)		
Number/signal type	1 genlock input 1 genlock loop output	
External sync (genlock)	Auto-sensing: Tri-level (high definition: 720p through 2K), bi-level (standard definition: 480i and 576i)	
AUDIO		
Frequency response	20 Hz to 20 kHz, ± 0.5 dB	
THD + Noise	<0.1% @ 1 kHz, 20 kHz bandwidth at nominal level	
S/N	>90 dB, at maximum output (unweighted)	
AUDIO INPUT		
Number/signal type	1 SDI embedded audio 1 analog stereo, balanced/unbalanced	
AUDIO OUTPUT		
Number/signal type	SDI: 2 AES — embedded audio — up to 16 channels pass-through Analog: 1 stereo or mono, balanced/unbalanced	
COMMUNICATIONS		
Serial control port	1 RS-232, 3 pole captive screw (rear panel)	
USB control port	1 female mini USB-B (front panel)	
GENERAL		
Enclosure dimensions	1.65" H x 8.75" W x 8.5" D (1U high, half rack wide) (4.2 cm H x 22.2 cm W x 21.6 cm D) (Depth excludes connectors.)	
Regulatory compliance	Safety: CE, c-UL, UL EMI/EMC: CE, C-tick, FCC Class A, ICES, VCCI	
Warranty	3 years parts and labor	
NOTE: All nominal levels are at ±10%.		
Model	Version Description	Part number
DSC 3G-3G A	3G-SDI to 3G-SDI Scaler	60-1453-01

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.

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