

Bidirectional conversion for

4K and 8K signals



SCV-8000 UHD TV Signal Converter

Super Hi-Vision Dual Green Signal Converter

Bidirectional 8K HD-SDI (x16) - 3G-SDI (x8) and 4K Level-A/B, SQD/2SI signal conversion. Supports embedded audio, time code, and other ancillary data.

Features

8K: 1.5G/3G conversion

Automatic conversion mode switching, based on input signal payload. Manual switching is also selectable.

8K SHV 8K (DG)		HD-SDI (1.5G) OUT	3G-SDI OUT	
			Level-A	Level-B
HD-SDI (1.5G) IN		/	No	Yes
3G-SDI IN	Level-A		No	/
	Level-B	Yes	No	/

Audio remapping

In 1.5G to 3G conversion

G1-a/b output: Channels 9-16 mapped behind 1-8 in stream A, and channels 1-8 behind 9-16 in stream B

G1-c/d output: Channels 25-32 mapped behind 17-24 in stream A, and channels 17-24 behind 25-32 in stream B

Redundant power supply

Built-in redundant power supply ensures uninterrupted operation in the event of a power supply failure.

4K: SQD/2SI conversion

Automatic conversion mode switching, based on input signal payload. Manual conversion is also available. Each channel is separately configurable.

4K ULTRA HD 4K			3G-SDI OUT			
			Level-A		Level-B	
3G-SDI IN	Level-A	SQD	Yes	Yes	Yes	Yes
		2SI	Yes	Yes	Yes	Yes
	Level-B	SQD	Yes	Yes	Yes	Yes
		2SI	Yes	Yes	Yes	Yes

Menu settings

Convenient displays of operational mode (DG 8K/4K), conversion mode and frame frequency settings on the front LCD panel.

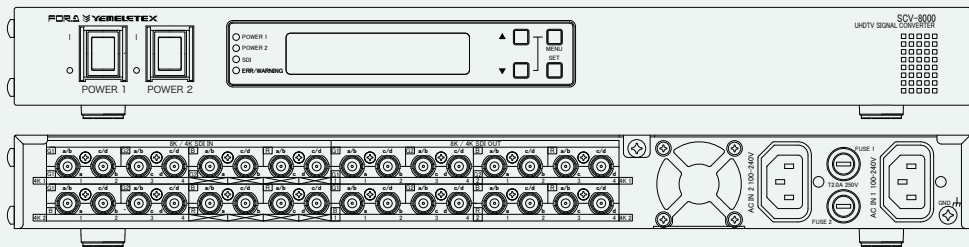
Specifications

Modes	8K	4K
Frame frequency	59.94 Hz/50 Hz	
Video input*	7680 x 4320/59.94p (50p) SDI input can be switched between the following two types: 8K input (3G-SDI x8) BNC x8 (1 line) - SMPTE 424M-compliant - DG-SDI signals with G1/G2/B/R mapped to 3G-SDI - Level-B Dual Stream - Payload IDs of each channel detected - Audio multiplexing: BNC x2 (16 ch x2) - Time code multiplexing: BNC x1 8K input (HD-SDI) BNC x16 (1 line) - SMPTE 292M-compliant - DG-SDI signals with G1/G2/B/R mapped to HD-SDI - Payload IDs of each channel detected - Audio multiplexing: BNC x4 (8 ch x4) - Time code multiplexing: BNC x1	3840 x 2160/59.94p (50p) or 4096 x 2160/59.94p (50p) 4K input (3G-SDI Level-A/B x4) BNC x4 (2 synced lines) - SMPTE 424M-compliant - Payload ID - YUV 422 / 10-bit - Square Division (SQD) or 2-Sample Interleave Division (2SI) - Audio multiplexing: BNC x1 (16 ch x2) - Time code multiplexing: BNC x1 (2 lines)
Video output	7680 x 4320/59.94p (50p) SDI output can be switched between the following two types: 8K output (3G-SDI x8) BNC x8 (2 lines/distributed) - SMPTE 424M-compliant - DG-SDI signals with G1/G2/B/R mapped to 3G-SDI - Level-B Dual Stream - Payload IDs added to each 3G-SDI channel to prevent misconnection - Audio multiplexing: BNC x2 (16 ch x2) - Time code multiplexing: BNC x1 8K output (HD-SDI x16) BNC x16 (1 line) - SMPTE 292M-compliant - DG-SDI signals with G1/G2/B/R mapped to HD-SDI - Payload IDs added to each HD-SDI channel to prevent misconnection - Audio multiplexing: BNC x4 (8 ch x4) - Time code multiplexing: BNC x1	3840 x 2160/59.94p (50p) or 4096 x 2160/59.94p (50p) 4K output (3G-SDI Level-A/B x4) BNC x4 (2 lines/2-way distributed) - SMPTE 424M-compliant - Payload ID - YUV 422 / 10-bit - Square Division (SQD) or 2-Sample Interleave Division (2SI) - Audio multiplexing: BNC x1 (16 ch x2) - Time code multiplexing: BNC x1 (2 lines/2-way distributed)
I/O delay	1 line max.	Between 2SI and SQD: 1 frame max. 2SI to 2SI, SQD to SQD: Level-A to Level-A: 1 line max. Level-B to Level-B: 1 line max. Level-A to Level-B: 3 lines max. Level-B to Level-A: 558 lines max.

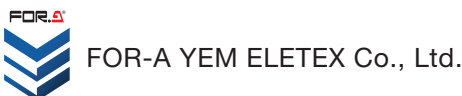
* Signals of each channel must be in phase.

Modes	8K	4K
Video input format	3G-SDI Permitted phase difference between channels: within ± 0.5 H 59.94 Hz: approx. ± 7.41 μ s max. / ± 1100 clk max. 50 Hz: approx. ± 8.89 μ s max. / ± 1320 clk max. HD-SDI Permitted phase difference between channels: within ± 0.5 H 59.94 Hz: approx. ± 14.82 μ s max. / ± 1100 clk max. 50 Hz: approx. ± 17.78 μ s max. / ± 1320 clk max.	
Video output format	3G-SDI Phase difference between channels: 64 clk max. HD-SDI Phase difference between channels: 64 clk max.	
Audio formats	48 kHz, 24-bit, 32 channels (AES3-compliant)	
Audio output	8K output (3G-SDI) BNC x2 (16 ch x2; shared with video output, 2 lines/distributed) - SMPTE 299M-compliant 8K output (HD-SDI) BNC x4 (8 ch x4; shared with video output, 1 line) - SMPTE 299M-compliant	4K output (3G-SDI) BNC x1 (16 ch x1; shared with video output, 2 lines max.) - SMPTE 299M-compliant
Time code input	8K input (3G-SDI) BNC x1 (shared with video input; 1 line) - SMPTE 12M-1/12M-2-compliant 8K input (HD-SDI) BNC x1 (shared with video input; 1 line) - SMPTE 12M-1/12M-2-compliant	4K input (3G-SDI) BNC x1 (shared with video input; 1 line) - SMPTE 12M-1/12M-2-compliant
Time code output	8K output (3G-SDI) BNC x1 (shared with video output; 2 lines/distributed) - SMPTE 12M-1/12M-2-compliant 8K output (HD-SDI) BNC x1 (shared with video output; 1 line) - SMPTE 12M-1/12M-2-compliant	4K output (3G-SDI) BNC x1 (shared with video output; 1 line) - SMPTE 12M-1/12M-2-compliant
Temperature/humidity	For operation: 5°C to 40°C / 10% to 80% (no condensation) For storage: -20°C to 60°C / Lower than 80% (no condensation)	
Power	100 V AC to 240 V AC $\pm 10\%$, 50/60 Hz, redundant power supply	
Consumption	56 W max.	
Dimensions	430 (W) x 44 (H) x 450 (D) mm (EIA 1U, excluding protrusions)	
Weight	6.5 kg	
Consumables	Cooling fan: Replace every 5 years. Power unit: Replace every 3 years.	
Accessories	Grounded power cables (2), Rack mount brackets (including screws), Operation manual	

External View



SCV-8000 is a joint development product with NHK, Japan.



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