

SC-2055A

Input / output board slot type Super Scan Converter

SC-2055A is a format converter that supports various image standards such as HD-SDI and SD-SDI that are required by corresponding digital broadcast studios, and analog RGB /YPbPr/YCbCr, DVI, HDMI, etc. Since the system consists of 2-line input and 2-line output I/O module, you can easily switch by selecting the slot system.

It comes equipped with a variety of convenient functions for format unification / conversion at broadcast studios and format conversion at editing facilities.

We completely focused on the image by utilizing ASTRODESIGN's original high-resolution animated picture outline correction technology "astrosnap" to improve animated images, while using our original algorithm "TERA(Technology Radionics)" for resolution conversion.

Features

- Easily expandable to 2 channels for each input / output slot system.
- 10 bit processing for all internal processes -- I/P conversion, scale conversion, etc.



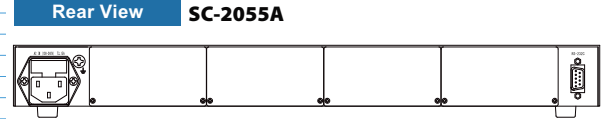
- Converts an inter race HDTV / SDTV timing signal to a high resolution progressive image by utilizing the "astrosnap" algorithm.
- Realizes faithful to original picture up/down conversion scale processing, either from SDTV signal to HDTV signal or HDTV to SDTV signal using the "TERA" algorithm.
- Supports reference synchronization output for output module.
- Realizes 1U size via compact design.
- Audio signal can be embedded by installing optional audio processor module "AM-1500"

Conversion



specifications

SC-2055A Main Body		
Input/Output signal system	Scanning system	Progressive/Interlace
	Input channel	1 channel per module * Switching operation is required when there are multiple input channels per module. * Switching operation of modules is required when using 2 modules.
AD sampling/Dot clock frequency	AD sampling/Dot clock frequency	MAX. 165 MHz / 2560 × 1580 (Interlace: Max. 74.25 MHz / 1920 × 1080)*
	Horizontal frequency	15 to 150 KHz*
	Vertical frequency	24 to 150 Hz (varies depending on resolution of input/output) 30 to 100 Hz in case of GonSYNC *As each restriction for the main body and for the modules being used must be cleared, please confirm the specifications for each module.
Image quality improvement engine Incorporates "astrosnap" (ASTRO Super Natural Motion Pictures) and TERA (Technology Radionics, original image conversion technology)		
External control RS-232C/RS-422 (option to be selected when shipped)		
General specifications	Voltage	AC100 to 120 V, AC200 to 240 V (50/60 Hz)
	Power consumption	Max. 89 W
	Operating temperature range	+5 to 40°C
	Operating humidity range	30 to 80% RH (no condensation)
	Dimensions	430(W) × 44(H) × 430(D) mm (excluding projected parts)
	Weight	Approx. 6.5 Kg



Input Module

IM-581 (NTSC/PAL input module)

TV system	* May not be displayed correctly when inputting signals with copy protection superimposed, or signals with unstable synchronization.	Rear View
VBS, Y/C Component	NTSC-M, PAL-B/D/G/H/I Y/R-Y/B-Y 480/59.94i * Y/Cb/Cr (SMPTE 125M) not supported.	
Signal Level	VBS	1 Vp-p/75Ω (BNC connector: no throughout)
	Y/C	Y: 1 Vp-p/75Ω, C: 0.286Vp-p/75Ω (S connector: no throughout)
	Y/R-Y/B-Y	Y: 1 Vp-p/75Ω (includes sync signal), R-Y/B-Y: 0.7 Vp-p/75Ω (75%) (BNC connector: no throughout), data resolution: 10 bit

IM-583 (analog component input module)

Input signal	*Please contact us as there are restrictions for blanking, etc. of the video timing.	Rear View
Color format	RGB, Y/Pb/Pr, Y/Cb/Cr	
A/D conversion frequency	13.5 to 165 MHz (Interlace: Max. 74.25 MHz) Horizontal frequency: 15 to 110 KHz Vertical frequency: 24 to 150 Hz (varies depending on resolution of input/output)	
Video signal	Signal level	0.7 Vp-p/75Ω (BNC connector: no throughout)
	Maximum Pixels	2560 × 1580 (progressive), 1920 × 1080 (interlace)
	Data resolution	8bit
Sync signal level	G on Sync	0.3 Vp-p/75Ω, HDTV 3-level Sync signals
	HS/VS	0.3 to 4.0 Vp-p/75Ω (positive/negative polarity), TTL (positive/negative polarity), (BNC connector: no throughout)
	CS	0.3 to 4.0 Vp-p/75Ω (positive/negative polarity), HDTV 3-level sync, TTL (positive/negative polarity), (BNC connector: shared with HS)
	Terminal switch	75Ω for HS(CS) and VS terminal/High-Z switching

IM-584 (D1-SDI input module)

Input signal	Supporting standards	Compliant with SMPTE 259M	Rear View
Color format	Y/Cb/Cr (compliant with SMPTE 125M)		
Video timing	720 × 480/59.94i, 720 × 576/50i		
Input connector	BNC (with throughout)		

IM-585 (HD-SDI input module)

Input signal	Supporting standards	Compliant with SMPTE 292M	Rear View
Color format	Y/Pb/Pr (compliant with SMPTE 240M/274M/296M)		
Video timing	1920 × 1080 30/29.97p, 25p, 24/23.98p 1920 × 1080 60/59.94i, 50i 1920 × 1080 24/23.98s F 1920 × 1035 60/59.94i 1280 × 720 60/59.94p, 60/59.94p, 50p, 30/29.98p, 25p, 24/23.98p		
Input connector	BNC (with throughout)		




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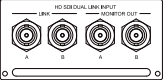
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IM-586 (DVI input module)

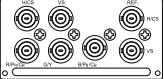
Input signal		*Please contact us as there are restrictions for blanking, etc. of the video timing.	Rear View
	Data format	DVI R1.0: Digital RGB	
	Clock frequency	12.5 to 16.5 MHz (Interlace: Max. 74.25 MHz) *repetition input for 25 MHz or less.	
	Horizontal frequency	15 to 150 KHz	
	Vertical frequency	24 to 150 Hz (varies depending on resolution of input/output)	
	Maximum pixels	2560 × 1580 (progressive), 1920 × 1080 (interlace)	
	Data graduation	8bit	
	DDC	Supported	
	Input connector	DVI-I (analog not supported: no throughout)	

IM-588 (Dual link HD-SDI input module)

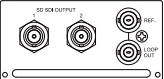
Input signal		*This module is dedicated to SC-2055A (cannot be used for SC-2055).	Rear View
	Supporting standards	Compliant with SMPTE 292M/372M	
	Color format	Y/Pb/Pr, RGB (compliant with SMPTE 240M/274M/296M)	
	Video timing	1920 × 1080 60/59.94p, 50p, 30/29.97p, 25p, 24/23.98p	
		1920 × 1080 60/59.94i, 50i	
		1920 × 1080 24/23.98sF	
		1920 × 1035 60/59.94i	
		1280 × 720 60/59.94p, 50p, 30/29.98p, 25p, 24/23.98p	
	Input connector	BNC (with throughout)	

Output module (*Stability of the reference signal may affect functioning when using reference input.)

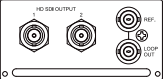
OM-593 (analog component output module)

Output signal		*Please contact us as there are restrictions for blanking, etc. of the video timing.	Rear View
	Color format	RGB, Y/Pb/Pr, Y/Cb/Cr	
	D/A conversion frequency	13.5 to 165 MHz (Interlace: Max. 74.25 MHz)	
	Horizontal frequency	15 to 110 KHz	
	Vertical frequency	24 to 150 Hz (varies depending on resolution of input/output)	
	Signal level	0.7 Vp-p/75Ω (BNC connector)	
	Maximum pixels	2560 × 1580 (progressive), 1920 × 1080 (interlace)	
	Data resolution	8bit	
Sync signal level	On Sync	Y(G) on/Y/PbPr (RGB) on are supported. 0.3 Vp-p/75Ω, HDTV 3-level Sync signals	
	HS/VS	TTL (positive/negative polarity) (BNC connector)	
	CS	0.3 Vp-p/75Ω (positive/negative polarity), HDTV 3-level Sync signals (BNC connector: shared with HS)	
Reference input	HS/VS	TTL (positive/negative polarity) (BNC connector: no throughout)	
	CS	0.3 Vp-p/75Ω (positive/negative polarity), HDTV 3-level Sync signals (BNC connector: shared with HS)	

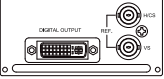
OM-594 (D1-SDI output module)

Output signal	Supporting standards	Compliant with SMPTE 259M	Rear View
	Color format	Y/Cb/Cr (compliant with SMPTE 125M)	
	Video timing	720 × 480/59.94i, 720 × 576/50i	
	Output connector	BNC: output 2ch (distribution output)	
Reference input	CS	BBS (NTSC/PAL), HDTV 2 level: 0.3 Vp-p/75Ω (positive/negative polarity), HDTV 3 level (BNC connector: with throughout)	

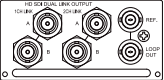
OM-595 (HD-SDI output module)

Output signal	Supporting signal	Compliant with SMPTE 292M	Rear View
	Color format	Y/Pb/Pr (compliant with SMPTE 240M/274M/296M)	
	Video timing	1920 × 1080 30/29.97p, 25p, 24/23.98p	
		1920 × 1080 60/59.94i, 50i	
		1920 × 1080 30/29.98sF, 25sF, 24/23.98sF	
		1920 × 1035 60/59.94i	
		1280 × 720 60/59.94p, 50p, 30/29.98p, 25p, 24/23.98p	
	Output connector	BNC: output 2ch (distribution output)	
Reference output	CS	BBS(NTSC/PAL), HDTV 2 level: 0.3 Vp-p/75Ω (positive/negative polarity), HDTV 3 level (BNC connector: with throughout)	

OM-596 (DVI output module)

Output signal		*Please contact us as there are restrictions for blanking, etc. of the video timing.	Rear View
	Data format	DVI R1.0: digital RGB	
	Clock frequency	12.5 to 165 MHz (Interlace: Max. 74.25 MHz) *repetition output for 25 MHz or less.	
	Horizontal frequency	15 to 150 KHz	
	Vertical frequency	24 to 150 Hz (varies depending on resolution of input/output)	
	Maximum pixels	2560 × 1580 (progressive), 1920 × 1080 (interlace)	
	Data graduation	8bit	
	Hot plug	Supported	
	DDC	Not supported	
	Output connector	DVI-I (analog not supported)	
Reference output	HS/VS	TTI (positive/negative polarity) (BNC connector: no throughout)	
	CS	0.3 Vp-p/75Ω (positive/negative polarity), HDTV 3-level Sync signal (BNC connector: shared with HS)	

OM-598 (Dual link HS-SDI output module)

Output signal		*This module is dedicated to SC-2055A (cannot be used for SC-2055).	Rear View
	Supporting standards	Compliant with SMPTE 292M/372M	
	Color format	Y/Pb/Pr, RGB (complaint with SMPTE 240M/274M/296M)	
	Video timing	1920 × 1080 60/59.94p, 50p, 30/29.97p, 25p, 24/23.98p	
		1920 × 1080 60/59.94i	
		1920 × 1080 24/23.98sF	
		1920 × 1035 60/59.94i	
		1280 × 720 60/59.94p, 50p 30/29.98p, 25p, 24/23.98p	
	Output connector	BNC: output 2ch (distribution output)	
Reference input	CS	BBS (NTSC/PAL), HDTV 2 level: 0.3Vp-p/75Ω (positive/negative polarity), HDTV 3 level (BNC connector: with throughout)	

Audio processor (*embedded option for the main body)

AM-1500 (audio processing board)

Supporting standards	Compliant with SMPTE 299M/272M, BTA F-1002/S-005B/S-006B
	Supports D1-SDI, HD-SDI and Dual Link HD-SDI embedded audio, and Ancillary Time Code



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