

Specifications — Matrix 50 Series Switchers

Video

Routing	8 x 4, 8 x 8, 12 x 4, or 12 x 8 matrix
Gain	Unity
Bandwidth	150 MHz (-3dB), fully loaded 0 - 10 MHz no more than 0.1dB to -0.1dB 0 - 130 MHz no more than 0.5dB to -0.5dB
Phase between I/Os	<1.28° at 3.58 MHz
Differential phase error	0.1%, 3.58 and 4.43 MHz
Differential gain error	0.1°, 3.58 and 4.43 MHz
Max. propagation of delay	5 ns typical (±1 ns)
Crosstalk	-50dB @ 5 MHz
Switching speed	200 ns (max.)

Video input

Number/signal type	8 or 12 RGsB, RsGsBs, component video (Y, R-Y, B-Y), HDTV, S-video, composite video
Connectors	(8 or 12) x 1, 2, or 3 BNC female
Nominal levels	1V p-p for Y of component video and S-video, and for composite video 0.7V p-p for RGB 0.3V p-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	Analog: 0.5V to 2V p-p with no offset
Impedance	75 ohms
Return loss	-30dB @ 5 MHz
Maximum DC offset	1.5V
External sync (genlock)	0.3V to 0.4V p-p

Video output

Number/signal type	4 or 8 RGsB, RsGsBs, component video (Y, R-Y, B-Y), HDTV, S-video, composite video
Connectors	(4 or 8) x 1, 2, or 3 BNC female
Nominal levels	1V p-p for Y of component video and S-video, and for composite video 0.7V p-p for RGB 0.3V p-p for R-Y and B-Y of component video, and for C of S-video
Minimum/maximum levels	0.5V to 2.0V p-p
Impedance	75 ohms
Return loss	-30dB @ 5 MHz
DC offset	±5mV maximum with input at 0 offset
Switching type	Vertical interval

Sync

Input type	RGsB, RsGsBs
Output type	RGsB, RsGsBs
Genlock connectors	BNC female
Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM

Audio

Routing	8 x 4, 8 x 8, 12 x 4, or 12 x 8 matrix
Gain	Unbalanced output: 0dB; balanced output: +6dB
Frequency response	20 Hz to 20 kHz, ±0.05dB
THD + Noise	0.03% @ 1 kHz at nominal level
S/N	>90dB, balanced, at rated maximum output (21dBu)
Crosstalk	<-80dB @ 1 kHz, fully loaded
Stereo channel separation	>80dB @ 1 kHz
THD	0.015%, worst case, @ 20 Hz to 20 kHz
CMRR	>75dB @ 20 Hz to 20 kHz

Audio input

Number/signal type	8 or 12 balanced/unbalanced
Connectors	(8 or 12) 3.5 mm captive screw connectors, 5 pole
Impedance	>10 kohm, unbalanced/balanced, DC coupled
Nominal level	-10dBV (316mV)
Maximum level	+19.5dBu, (balanced or unbalanced) at 1%THD+N
Input gain adjustment	-15dB to +9dB, adjustable per input via RS-232 or front panel

Audio output

Number/signal type	4 or 8 stereo, balanced/unbalanced
Connectors	(4 or 8) 3.5 mm captive screw connectors, 5 pole
Impedance	Unbalanced 50 ohms, balanced 100 ohms
Gain	Unbalanced 0dBu, balanced +6dBu
Gain error	±0.1dB channel to channel
Maximum output (Hi-Z)	>+21dBu, balanced at stated %THD+N
Maximum output (600 ohm)	>+15dBm, balanced at stated %THD+N

NOTE 0dBu = 0.775 volts (RMS).

Control/remote

Serial control port	RS-232 or RS-422, 9-pin female D connector
Baud rate and protocol	9600, 8-bit, 1 stop bit, no parity
Serial control pin configurations	2 = TX, 3 = RX, 5 = GND
Program control	Extron's control program for Windows Extron's Simple Instruction Set™ – SIS™

General

Power	100VAC to 240VAC, 50/60 Hz, 30 watts, internal, auto-switchable	
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing Operating +32° to +104°F (0° to +40°C) / 10% to 90%, non-condensing	
Rack mount	Yes	
Enclosure type	Metal	
Enclosure dimensions	3.5" H x 17.0" W x 9.5" D (2U high, full rack width) 8.9 cm H x 43.2 cm W x 24.1 cm D (Depth excludes connectors. Width excludes rack ears.)	
Product weight	8.6 lbs (3.9 kg)	
Shipping weight	15 lbs (6.8 kg) DIM weight	25
Vibration	ISTA/NSTA 1A in carton (International Safe Transit Association)	
Listings	UL, CUL	
Compliances	CE, FCC Class A	
Warranty	3 years parts and labor	

NOTE Specifications are subject to change without notice.

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