

Specifications — MAV 44-88 Series

Video — composite video and S-video models

Routing

MAV 44 Series	4 x 4 matrix
MAV 48 Series	4 x 8 matrix
MAV 84 Series	8 x 4 matrix
MAV 88 Series	8 x 8 matrix
Gain	Unity
Bandwidth	150 MHz (-3 dB), fully loaded
Differential phase error	<0.1° at 3.58 MHz and 4.43 MHz
Differential gain error	<0.1% at 3.58 MHz and 4.43 MHz
Crosstalk	<-50 dB @ 5 MHz
Switching speed	20 ms (max.)

Video input — composite video and S-video models

Number/signal type

MAV 44 AV, MAV 44 AV RCA, MAV 48 AV, MAV 48 AV RCA	4 composite video
MAV 44 SVA, MAV 44 SVA RCA, MAV 48 SVA, MAV 48 SVA RCA	4 S-video
MAV 84 AV, MAV 84 AV RCA, MAV 88 AV, MAV 88 AV RCA, MAV 88 V	8 composite video
MAV 84 SVA, MAV 84 SVA RCA, MAV 88 SVA, MAV 88 SVA RCA	8 S-video

Connectors

MAV 44/48 composite video models	4 female BNC
MAV 44/48 S-video models	4 female 4-pin mini DIN
MAV 84/88 composite video models	8 female BNC
MAV 84/88 S-video models	8 female 4-pin mini DIN
Nominal level	1 V _{p-p} for Y of S-video, and for composite video 0.3 V _{p-p} for C of S-video
Minimum/maximum levels	Analog: 0.4 V to 2.0 V _{p-p} with no offset at unity gain
Impedance	75 ohms
Return loss	Composite video: <-38 dB @ 0 to 10 MHz S-video: <-25 dB @ 0 to 10 MHz
DC offset (max. allowable)	5 V
External sync (genlock)	0.2 V to 0.4 V _{p-p}
Input coupling	AC coupling only

Video output — composite video and S-video models

MAV 44 AV, MAV 44 AV RCA, MAV 84 AV, MAV 84 AV RCA	4 composite video
MAV 44 SVA, MAV 44 SVA RCA, MAV 84 SVA, MAV 84 SVA RCA	4 S-video
MAV 88 AV, MAV 88 AV RCA, MAV 88 V, MAV 48 AV, MAV 48 AV RCA	8 composite video
MAV 88 SVA, MAV 88 SVA RCA, MAV 48 SVA, MAV 48 SVA RCA	8 S-video

Connectors

MAV 44/84 composite video models	4 female BNC
MAV 44/84 S-video models	4 female 4-pin mini DIN
MAV 48/88 composite video models	8 female BNC
MAV 48/88 S-video models	8 female 4-pin mini DIN
Nominal level	1 V _{p-p} for Y of S-video, and for composite video 0.3 V _{p-p} for C of S-video
Minimum/maximum levels	0.4 V to 2.0 V _{p-p} (follows input)
Impedance	75 ohms
Return loss	S-video: <-25 dB @ 5 MHz Composite video: <-40 dB @ 5 MHz
DC offset	15 mV typical (per output enabled with 70 ohm termination) with input at 0 offset
Switching type	Vertical interval

Sync — composite video and S-video models

Genlock connectors	2 BNC female
Standards	NTSC 3.58, NTSC 4.43, PAL, SECAM

Audio — audio models

Routing

MAV 44 Series	4 x 4 stereo matrix
MAV 48 Series	4 x 8 stereo matrix
MAV 84 Series	8 x 4 stereo matrix
MAV 88 Series	8 x 8 stereo matrix
Gain	Adjustable; the default is unity. Unity gain occurs for all RCA connector models. In all other models with captive screw connectors, unity gain occurs when the switcher is configured for balanced output.
Frequency response	20 Hz to 20 kHz, ±0.5 dB
THD + Noise	1% @ 1 kHz, 0.3% @ 20 kHz at nominal level
S/N	90 dB at maximum output (unweighted)
Crosstalk	<-65 dB @ 20 kHz, <-80 dB @ 1 kHz or below 60 Hz, fully loaded
Stereo channel separation	>80 dB @ 20 Hz to 20 kHz
CMRR	>75 dB @ 20 Hz to 20 kHz

Audio input — audio models

Number/signal type

MAV 44 AV, MAV 44 SVA, MAV 48 AV, MAV 48 SVA	4 stereo, balanced/unbalanced
MAV 44 AV RCA, MAV 44 SVA RCA, MAV 48 AV RCA, MAV 48 SVA RCA	4 stereo, unbalanced
MAV 84 AV, MAV 84 SVA, MAV 88 AV, MAV 88 SVA	8 stereo, balanced/unbalanced
MAV 84 AV RCA, MAV 84 SVA RCA, MAV 88 AV RCA, MAV 88 SVA RCA	8 stereo, unbalanced

Connectors

MAV 44 AV, MAV 44 SVA, MAV 48 AV, MAV 48 SVA	(4) 3.5 mm captive screw connectors, 5 pole
MAV 44 AV RCA, MAV 44 SVA RCA, MAV 48 AV RCA, MAV 48 SVA RCA	4 pairs of RCA female connectors
MAV 84 AV, MAV 84 SVA, MAV 88 AV, MAV 88 SVA	(8) 3.5 mm captive screw connectors, 5 pole

Specifications — MAV Series Matrix Switchers (continued)

	MAV 84 AV RCA, MAV 84 SVA RCA, MAV 88 AV RCA, MAV 88 SVA RCA
	8 pairs of RCA female connectors
Impedance	>18k ohms unbalanced, 24k ohms balanced, DC coupled
Nominal level	Configurable: +4 dBu (1.23 V, professional level) or -10 dBV (316 mV, consumer level)
Maximum level	>+20 dBu (captive screw models) at 1% THD+N >+14 dBu (RCA models) at 1% THD+N
Input gain adjustment	-18 dB to +10 dB, adjustable per input; default = 0 dB. (This is referenced to the internal bus signal level. It can be verified by measuring the unbalanced output level when the output level is set to "Consumer".)

NOTE 0 dBu = 0.775 V(rms), 0 dBV = 1 V(rms), 0 dBV ≈ 2 dBu

Audio output — audio models

Number/signal type	
	MAV 44 AV, MAV 44 SVA, MAV 84 AV, MAV 84 SVA 4 stereo, balanced/unbalanced
	MAV 44 AV RCA, MAV 44 SVA RCA, MAV 84 AV RCA, MAV 84 SVA RCA 4 stereo, unbalanced
	MAV 88 AV, MAV 88 SVA, MAV 48 AV, MAV 48 SVA 8 stereo, balanced/unbalanced
	MAV 88 AV RCA, MAV 88 SVA RCA, MAV 48 AV RCA, MAV 48 SVA RCA 8 stereo, unbalanced
Connectors	
	MAV 44 AV, MAV 44 SVA, MAV 84 AV, MAV 84 SVA (2) 3.5 mm captive screw connectors, 10 pole
	MAV 44 AV RCA, MAV 44 SVA RCA, MAV 84 AV RCA, MAV 84 SVA RCA 4 pairs of RCA female
	MAV 88 AV, MAV 88 SVA, MAV 48 AV, MAV 48 SVA (4) 3.5 mm captive screw connectors, 10 pole
	MAV 88 AV RCA, MAV 88 SVA RCA, MAV 48 AV RCA, MAV 48 SVA RCA 8 pairs of RCA female
Impedance	50 ohms unbalanced, 100 ohms balanced
Gain error	<±0.1 dB channel to channel
Nominal level	Configurable: +4 dBu (1.23 V, professional level) or -10 dBV (316 mV, consumer level)
Maximum level (Hi-Z)	>+20 dBu, balanced; >+18 dBu, unbalanced at 1%THD+N at default settings
Maximum level (600 ohm)	>+19 dBm, balanced; >+13 dBm, unbalanced at 1%THD+N at default settings

Control/remote — switcher

Serial control port	RS-232, 9-pin female D connector
Baud rate and protocol	9600 baud, 8 data bits, 1 stop bit, no parity
Serial control pin configurations	2 = TX, 3 = RX, 5 = GND, 9 = hardwired IR
IR controller module	IR 501 remote control (optional)
Program control	Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

General

Power	100 VAC to 240 VAC, 50/60 Hz, 15 watts, internal
Temperature/humidity	Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
Cooling	Convection, unvented
Rack mount	Yes, with included brackets, part #70-077-03 Also furniture mountable with an optional under-desk mounting kit, part #70-222-01
Enclosure type	Metal

Enclosure dimensions	1.75" H x 17.4" W x 8.5" D (1U high, full rack wide) 4.4 cm H x 44.2 cm W x 21.6 cm D (Depth excludes connectors. Width excludes rack ears.)
Product weight	7.0 lbs (3.2 kg)
Shipping weight	10 lbs (5 kg)
Vibration	ISTA 1A in carton (International Safe Transit Association)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
MTBF	30,000 hours
Warranty	3 years parts and labor

NOTE *All nominal levels are at ±10%.*

NOTE *Specifications are subject to change without notice.*

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