

MDA Series

Composite Video, S-Video, and Audio Mini Distribution Amplifiers



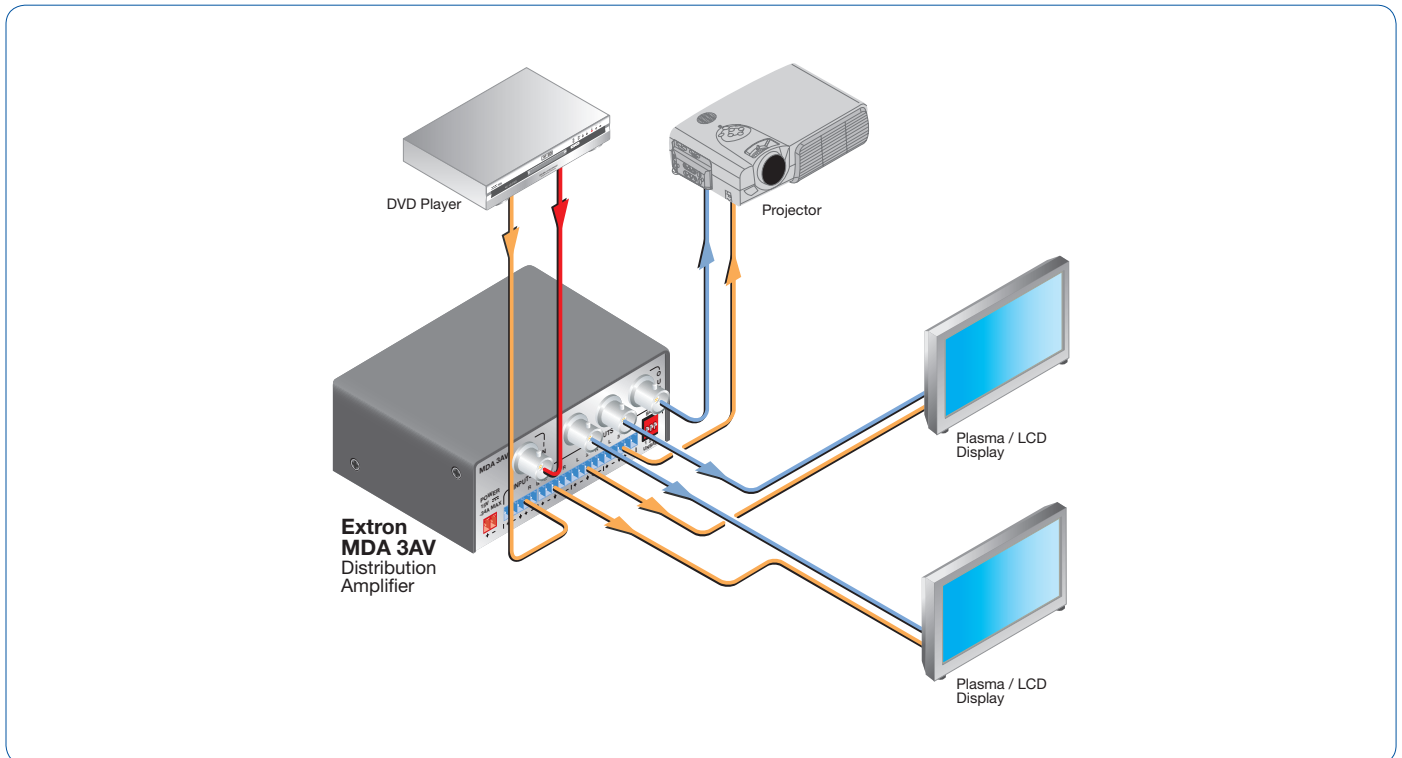
COMMON FEATURES

- Rack mountable 1U, quarter rack width metal enclosure
- Versatile mounting options including rack, projector, and under-desk mounts
- External universal power supply included, part # 70-055-01

DESCRIPTION

The Extron **MDA Series** consists of one input, three or five output composite video, S-video, or stereo audio Mini Distribution Amplifiers. Both composite video and S-video models output an amplified signal up to 150 feet (45 meters).

Part of the VersaTools® line of economical, compact products, MDA Series mini distribution amplifiers are rack or under-desk mountable and include an external international power supply. Their small size makes them the ideal solution for easy integration into both new and existing A/V systems including boardrooms, training facilities, home theater, command and control centers, and rental and staging environments.



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MDA Series

Composite Video Models

MDA 3V

Three Output Composite Video Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes composite video on female BNC connectors
- 435 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 3V	1x3 Composite Video.....	60-439-01

MDA 3V Dual

Dual Three Output Composite Video Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes composite video on female BNC connectors
- Two distribution amplifiers in a single enclosure
- 435 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 3V Dual	Dual 1x3 Composite Video.....	60-439-10

MDA 3AV

Three Output Composite Video with Stereo Audio Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes composite video on female BNC connectors
- Balanced and unbalanced audio on captive screw connectors
- Audio output gain dip switch to maintain unity gain
- 435 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 3AV	1x3 Composite w/Stereo Audio.....	60-439-20

MDA 5V

Five Output Composite Video Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes composite video on female BNC connectors
- Balanced and unbalanced audio on captive screw connectors
- Input loop-through
- 435 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 5V	1x5 Composite Video.....	60-446-01

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MDA Series

S-Video Models

MDA 3SV

Three Output S-Video Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes S-video on female 4-pin mini DIN connectors
- 270 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 3SV	1x3 S-Video	60-444-01

MDA 3SVA

Three Output S-Video with Stereo Audio Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes S-video on female 4-pin mini DIN connectors
- Balanced and unbalanced audio on captive screw connectors
- Audio output gain dip switch to maintain unity gain
- 270 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 3SVA	1x3 S-Video w/Stereo Audio	60-444-20

MDA 5SV

Five Output S-Video Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes S-video on female 4-pin mini DIN connectors
- Input loop-through
- 270 MHz (-3 dB) video bandwidth, fully loaded



MODEL	VERSION DESCRIPTION	PART #
MDA 5SV	1x5 S-Video	60-447-01

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MDA Series

Stereo Audio Models

MDA 3A

Three Output Stereo Audio Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes balanced or unbalanced line level stereo audio
- Audio output gain dip switch to maintain unity gain between balanced and unbalanced signals



MODEL	VERSION DESCRIPTION	PART #
MDA 3A	1x3 Stereo Audio	60-440-01

MDA 5A RCA

Five Output Stereo Audio Mini Distribution Amplifier

UNIQUE FEATURES

- Accepts and distributes unbalanced audio on RCA jacks



MODEL	VERSION DESCRIPTION	PART #
MDA 5A RCA	1x5 Stereo Audio on RCAs	60-441-01

MDA Series Accessories

OPTIONAL ACCESSORIES	MODEL DESCRIPTION	PAGE	PART #
RSU 129	1U 9.5" Deep Universal Rack Shelf Kit	page 819	60-190-01
RSF 123	1U 3.5" Deep VersaTools® Rack Shelf Kit	page 818	60-190-20
RSB 129	1U 9.5" Deep Basic Rack Shelf	page 820	60-604-01
PMK 100	One VersaTools®, 1/4 Rack Width Mini Projector Mounting Kit	page 813	70-217-01

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MDA Series

SPECIFICATIONS

VIDEO

Gain Unity
Bandwidth
 MDA 3SV/3SVA, MDA 5SV 270 MHz (-3 dB)
 MDA 3V/3AV/3V Dual, MDA 5V 435 MHz (-3 dB)

VIDEO INPUT

Number / Signal type
 MDA 3SV/3SVA, MDA 5SV 1 S-video
 MDA 3V/3AV, MDA 5V 1 composite video
 MDA 3V Dual 2 composite video
Connectors
 MDA 3SV/3SVA, MDA 5SV (1) 4-pin mini DIN female
 MDA 3V/3AV, MDA 5V 1 BNC female
 MDA 3V Dual 2 BNC female
Nominal level 1 Vp-p for Y of S-video and for composite video
 0.3 Vp-p for C of S-video
Minimum / Maximum levels 0.4 V to 2.0 Vp-p for composite video or Y of S-video with no offset
Impedance 75 ohms
Return loss
 MDA 3SV/3SVA, MDA 5SV, All other models <-27 dB @ 5 MHz
DC offset (max. allowable) 5.0 V
Input coupling AC

VIDEO OUTPUT

Number / Signal type
 MDA 3SV/3SVA 3 buffered S-video
 MDA 5SV 6 S-video; 5 buffered for distribution, 1 passive loop-through
 MDA 3V/3AV 3 buffered composite video
 MDA 3V Dual 2 x 3 buffered composite video
 MDA 5V 6 composite video; 5 buffered for distribution, 1 passive loop-through
Connectors
 MDA 3SV/3SVA (3) 4-pin mini DIN female
 MDA 5SV (6) 4-pin mini DIN female
 MDA 3V/3AV 3 BNC female
 MDA 3V Dual 6 BNC female
 MDA 5V 6 BNC female
Nominal level 1 Vp-p for Y of S-video and for composite video
 0.3 Vp-p for C of S-video
Minimum / Maximum levels 0.4 V to 2.0 Vp-p, follows input
Impedance 75 ohms
Return loss <-30 dB @ 5 MHz
DC offset ±50 mV with input at 0 offset

SYNC

Standards NTSC 3.58, NTSC 4.43, PAL, SECAM

AUDIO (MDA 3AV, MDA 3SVA, MDA 3A, MDA 5A RCA)

Gain
 DIP switch set to match output type Unity (0 dB)
 DIP switch not matched to output type See the table below.

DIP Switch Setting	Output Wiring	
	Unbalanced	Balanced
Balanced	0 dB	-6 dB
Unbalanced	+6 dB	0 dB

Frequency response 20 Hz to 20 kHz, ±0.05 dB
THD + Noise 0.03% @ 1 kHz at nominal level
S/N
 MDA 5A RCA >90 dB, unbalanced, at maximum output
 All other models w/audio >90 dB, balanced at maximum output
Stereo channel separation >80 dB @ 1 kHz; >60 dB @ 20 kHz
CMRR >75 dB @ 20 Hz to 20 kHz

AUDIO INPUT (MDA 3AV, MDA 3SVA, MDA 3A, MDA 5A RCA)

Number / Signal type
 MDA 5A RCA 1 stereo unbalanced
 MDA 3AV, MDA 3SVA, MDA 3A 1 stereo balanced/unbalanced
Connectors
 MDA 5A RCA 2 RCA connectors
 MDA 3AV, MDA 3SVA, MDA 3A (1) 3.5 mm captive screw connector, 5 pole

Impedance

MDA 5A RCA >10k ohms unbalanced, DC coupled
 MDA 3AV, MDA 3SVA, MDA 3A >50k ohms unbalanced, >25k ohms balanced, DC coupled
Nominal level +4 dBu (1.23V), 0 dBu (0.775 V), -10 dBV (316 mV), -20 dBV (100 mV) compatible

Maximum level

MDA 5A RCA +17 dBu (unbalanced) at 1%THD+N
 All other models w/audio +24 dBu (balanced) at 1%THD+N
 NOTE: 0 dBu = 0.775 Vrms, 0 dBV = 1 Vrms, 0 dBV ≈ 2 dBu

AUDIO OUTPUT (MDA 3AV, MDA 3SVA, MDA 3A, MDA 5A RCA)

Number / Signal type
 MDA 5A RCA 5 stereo, unbalanced
 MDA 3AV, MDA 3SVA, MDA 3A 3 stereo, balanced/unbalanced
Connectors
 MDA 5A RCA 10 RCA connectors
 MDA 3AV, MDA 3SVA, MDA 3A (3) 3.5 mm captive screw connectors, 5 pole
Impedance
 MDA 5A RCA 50 ohms unbalanced
 MDA 3AV, MDA 3SVA, MDA 3A 50 ohms unbalanced, 100 ohms balanced
Gain error ±0.1 dB channel to channel

Maximum level (H-Z)

MDA 5A RCA +15 dBu, unbalanced, at 1%THD+N
 All other models w/audio >+24 dBu, balanced at 1%THD+N
Maximum level (600 ohm)
 MDA 3A/5A RCA >+14 dBm, unbalanced, at 1%THD+N
 All other models w/audio >+15 dBm, balanced or unbalanced, at 1%THD+N

GENERAL

External power supply 100 VAC to 240 VAC, 50/60 Hz, 5 watts, external, universal; to 12 VDC, 1 A (max.), regulated
Power input requirements
 MDA 3V/3SV/5V/5SV 12 VDC, 0.1 A (max.)
 MDA 3AV/3SVA 12 VDC, 0.3 A (max.)
 All other models 12 VDC, 0.2 A (max.)
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
Rack mount Yes, with optional 1U rack shelf, part #60-190-01, or 60-604-01; or the VersaTools® rack shelf, part #60-190-20, or 60-604-20
Enclosure type Metal
Enclosure dimensions 1.7" H x 4.3" W x 3.0" D (1U high, quarter rack wide)
 4.2 cm H x 11.0 cm W x 7.6 cm D (Depth excludes connectors and knobs.)

Product weight

MDA 3V, MDA 3SVA 0.4 lbs (0.2 kg)
 MDA 3AV 0.6 lbs (0.3 kg)
 MDA 5V, MDA 5SV 0.5 lbs (0.2 kg)
 MDA 3SV 0.4 lbs (0.2 kg)
 MDA 3A 0.5 lbs (0.2 kg)
 MDA 5A RCA 0.4 lbs (0.2 kg)

Shipping weight

MDA 3V, MDA 3V Dual 3 lbs (2 kg)
 MDA 3AV, MDA 5V 3 lbs (2 kg)
 MDA 3SV 2 lbs (1 kg)
 MDA 3SVA, MDA 5SV 2 lbs (1 kg)
 MDA 5A RCA 2 lbs (1 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%. Specifications are subject to change without notice.