



User's Guide

ADA 4 300 MX/MX HV	7 watts
ADA 6 300 MX/MX HV	10 watts
Temperature/humidity	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing
Rack mount	
ADA 2 300 MX/ MX HV	No
All other models	Yes, with optional 2U shelf # 60-030-01, 2U front panel #60-030-10, or 3U front panel #60-126-01
Enclosure type	Metal
Enclosure dimensions	
ADA 2 300 MX/ MX HV	1.75" H x 4.6" W x 4.7" D 4.4 cm H x 11.7 cm W x 11.9 cm D (Depth excludes connectors.)
ADA 4/6 300 MX	3.4" H x 8.5" W x 6.3" D (2U high, <half rack width) 8.6 cm H x 21.6 cm W x 16.0 cm D (Depth excludes connectors.)
ADA 4/6 300 MX HV	4.3" H x 8.4" W x 6.3" D (<3U high, <half rack width) 10.8 cm H x 21.0 cm W x 16.0 cm D (Depth excludes connectors.)
Product weight	
ADA 2 300	1.3 lbs (0.6 kg)
ADA 2 300 HV	1.4 lbs (0.6 kg)
ADA 4 300 MX	3.5 lbs (1.6 kg)
ADA 4 300 MX HV	4.0 lbs (1.8 kg)
ADA 6 300 MX	3.9 lbs (1.8 kg)
ADA 6 300 MX HV	4.4 lbs (2.0 kg)
Shipping weight	
ADA 2 300 MX/MX HV ...	3 lbs (1.4 kg)
ADA 4 300 MX	5 lbs (2.3 kg)
ADA 4 300 MX HV	6 lbs (2.7 kg)
ADA 6 300 MX	6 lbs (2.7 kg)
ADA 6 300 MX HV	7 lbs (3.2 kg)
Vibration	ISTA/NSTA 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 Specifications are subject to change without notice.

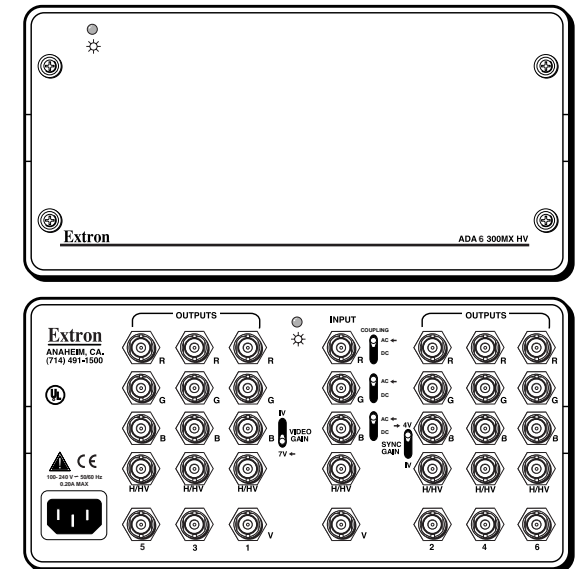


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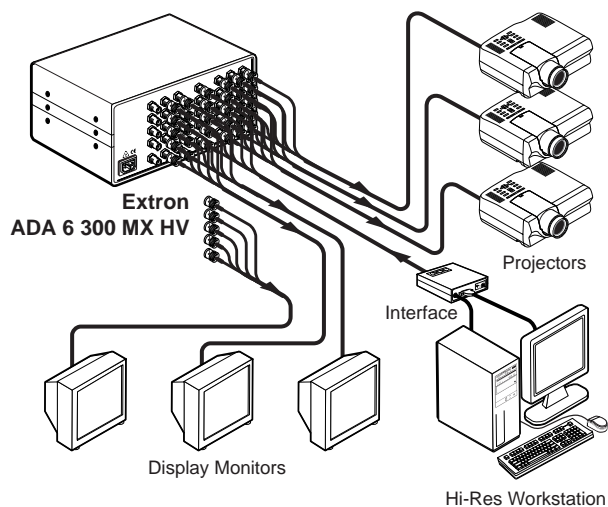
Analog Distribution Amplifiers

Composite/S-video Encoder-Decoder

Application

Extron's Analog Distribution Amplifiers (ADAs) are designed for use when one RGB signal must be sent to multiple outputs while maintaining signal quality. Several models are shown in this user guide, each with its own features and number of outputs. The model best suited for any particular application depends upon the number of outputs needed and the resolution and scan frequency of the signal to be distributed. As a rule of thumb, the higher the resolution and scan frequency, the higher the bandwidth required, in order to maintain optimum picture quality.

The illustration below is an example showing an ADA 6 distributing the video from one source to six destinations. Two ADAs could be connected together for a total of 11 outputs.



Features

- Accepts RGB with sync on green, separate composite sync, separate H&V sync or NTSC/PAL video (certain models).
- High RGB bandwidth allows for signal distribution with no loss of picture quality.
- Loop output for ganging units together to provide additional outputs (certain models).
- All outputs are separately buffered and isolated.
- TTL or analog sync output selector switch allows you to choose between output sync levels (sync gain).

Installation

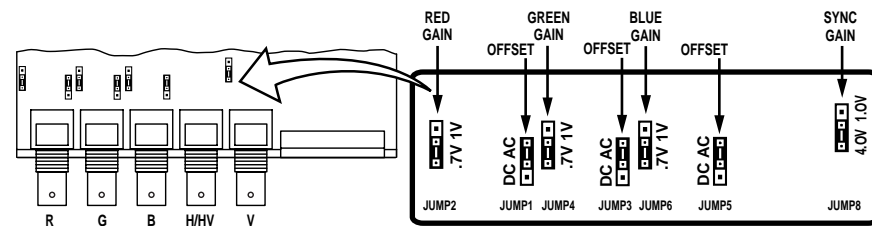
To install an Extron ADA, do the following:

1. Remove power to the ADA and all computers and other devices that will be connected during the installation procedure.
2. For rack mounting, first mount the ADA to a rack front panel, or universal rack shelf, and then mount the assembly in the rack.
3. Connect the input BNC connectors to the signal source, such as computer video through a video interface. Depending on the model of your ADA, there are either four connectors (marked R, G, B, and S) or five connectors (marked R, G, B, HV, and V).
4. Connect each output to its destination (such as a monitor or projector).
5. Apply power to the ADA(s) and other devices, PC computer, local monitor, and other display device(s).

NOTE If looping ADAs, choose which unit will be #1 and connect one of its outputs to the input on ADA #2.

ADA 2 models, internal jumpers

Internal jumper settings for the ADA 2 300 HV model are shown below.



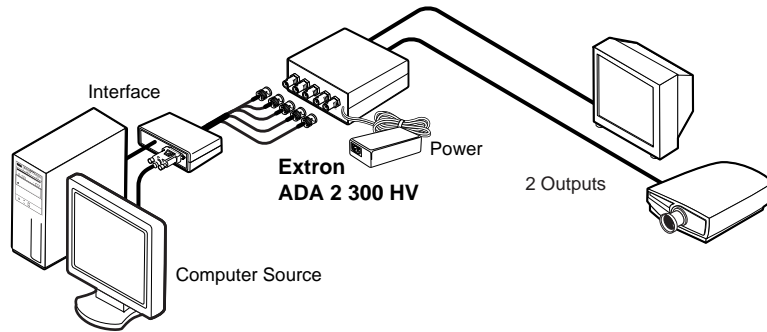
Operation

There is little involved in the operation of an ADA. All models, except for the ADA 2, have toggle switches on the rear panel. A small arrow identifies the default position for each switch.

1. The Video Gain switch is normally set at 0.7V (down). For installations with long output cable runs, the 1V (up) position will give a better picture.
2. The Sync Gain switch is normally set at 4V (up), for TTL sync. For the few applications where analog sync is used, this switch should be in the 1V (down) position.
3. AC/DC coupling switches are normally set to the AC position. Some applications may require that these switches be set to the DC position.

NOTE If the Sync Gain switch is set for 1 V (down) when it should be at 4V, the result will be an unstable or blanking picture.

Operation



Specifications

Video

Gain	
ADA 2 300 MX/MX HV	Unity
ADA 4/6 300 MX/MX HV ...	0.7V or 1.0V, switch-selectable
Bandwidth	
ADA 2 300 MX/MX HV	400 MHz (-3dB), fully loaded
ADA 4/6 300 MX/MX HV ...	300 MHz (-3dB), fully loaded

Video input

Number/signal type	
ADA 2/4/6 300 MX	1 RGBS, RGsB, RsGsBs, component video, S-video, composite video
ADA 2/4/6 300 MX HV	1 RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, composite video
Connectors	
ADA 2/4/6 300 MX	4 BNC female
ADA 2/4/6 300 MX HV	5 BNC female
Minimum/maximum levels	Analog 0.3V to 1.5V p-p with no DC offset at unity gain
Impedance	75 ohms
Horizontal frequency	
ADA 2 300 MX/MX HV	15 kHz to 135 kHz
ADA 4/6 300 MX/MX HV ...	15 kHz to 150 kHz
Vertical frequency	
ADA 2 300 MX/MX HV	30 Hz to 150 Hz
ADA 4/6 300 MX/MX HV ...	4 Hz to 140 Hz
Return loss	
ADA 2 300 MX/MX HV	-42dB @ 5 MHz
ADA 4/6 300 MX/MX HV ..	-38.5dB @ 5 MHz
AC/DC coupling	Yes, switch-selectable

Specifications, cont'd

Video output

Number/signal type	
ADA 2/4/6 300 MX	2/4/6 RGBS, RGsB, RsGsBs, component video, S-video, composite video
ADA 2/4/6 300 MX HV	2/4/6 RGBHV, RGBS, RGsB, RsGsBs, component video, S-video, composite video
Connectors	
ADA 2/4/6 300 MX	2/4/6 x 4 BNC female (depending on the model)
ADA 2/4/6 300 MX HV	2/4/6 x 5 BNC female (depending on the model)
Minimum/maximum levels	0.3V to 1.5V p-p
Impedance	75 ohms
Return loss	
ADA 2 300 MX/MX HV	-80dB @ 5 MHz
ADA 4/6 300 MX/MX HV ...	-44dB @ 5 MHz
DC offset	
ADA 2 300 MX/MX HV	±5mV maximum, AC coupled
ADA 4/6 300 MX/MX HV ...	±13mV maximum with input at 0 offset

Sync

Input type	RGBHV (HV models only), RGBS, RGsB, RsGsBs
Output type	RGBHV (HV models only), RGBS, RGsB, RsGsBs
Input level	Analog or TTL 0.5V to 5V p-p
Output level	
ADA 2 300 MX/MX HV	5V p-p (TTL)
ADA 4 300 MX/MX HV	Analog or TTL (selectable) 1.0V, 4.0V p-p
ADA 6 300 MX/MX HV	Analog or TTL (selectable) 0.5V to 5V p-p
Gain	1V or 4V p-p, switch-selectable
Input impedance	
ADA 2 300 MX/MX HV	510 ohms
ADA 4/6 300 MX/MX HV ...	500 ohms
Output impedance	75 ohms
Max input voltage	5V p-p
Input sensitivity	0.5V to 5.0V p-p
Max. propagation delay	
ADA 2 300 MX/MX HV	60 nS
ADA 4/6 300 MX/MX HV ...	34.8 nS
Max. rise/fall time	
ADA 2 300 MX/MX HV	4 nS
ADA 4/6 300 MX/MX HV ...	4.8 nS
Polarity	Positive or negative

General

Power	
ADA 2 300 MX/ MX HV	100VAC to 240 VAC, 50/60 Hz, 2 watts, external, auto-switchable; to 9VDC, 1 A power supply.
All other models	100VAC to 240VAC, 50/60 Hz, internal, auto-switchable