

# Extron Electronics

INTERFACING, SWITCHING AND DISTRIBUTION

P/2 DA1

P/2 DA2 PLUS

P/2 DA2 LC

P/2 DA2 MT

P/2 DA2 WM

P/2 DA4 PLUS

P/2 DA6 PLUS

SW2 VGA DA2 A

SW2 VGA DA2 AF

Mac DA2 PLUS

13W3 DA2



## VGA, MAC, & 13W3 DISTRIBUTION AMPLIFIERS



**VISUAL**  
**TECHNOLOGIES**  
 www.visualtec.com  
 1620 Burnet Avenue  
 Syracuse, NY 13206  
 (315) 423-2000 tel  
 (315) 423-0004 fax  
 contact@visualtec.com

# P/2 DA1



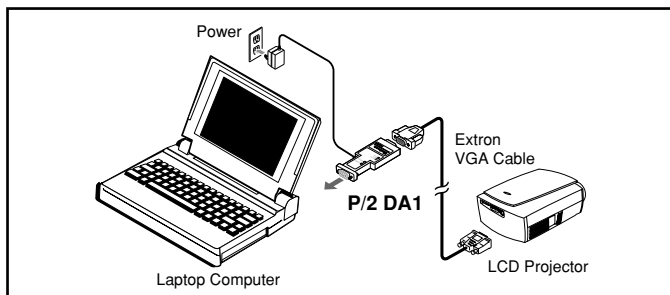
P/2 DA1

Extron's P/2 DA1, "The Peaker," is an extremely small, one input, one buffered output VGA/SVGA/XGA/SXGA line driver. This DA drives a high resolution computer-video signal up to 250 feet through high-quality cable, such as Extron's VGA cable. The P/2 DA1 provides amplification and peaking. This allows the video signal to be run long distances and produces a brighter and sharper image than normally possible. This is especially useful in the case of laptops, which often output a low power video signal. The P/2 DA1 also restores low level sync voltages found on many laptops (as low as two volts) to normal TTL levels. This allows a laptop to function with display devices and cable types it normally wouldn't work with. The laptop's ID bits are passed through to the display. The P/2 DA1 is housed in an adapter-sized enclosure, which allows it to be easily connected directly to a laptop.

## FEATURES

- **Bandwidth** – 300 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with VGA, SVGA, XGA, and SXGA graphic cards, monitors, and projectors as well as Macs with 15-pin HD output.
- **Input connector** – Features a 15-pin HD male connector for video input.
- **Output connectors** – Features a 15-pin HD female connector for buffered video output.
- **ID bits** – Laptop's ID bits are passed through to the display.
- **Gain and peaking** – User-selectable gain and peaking help maintain signal integrity during long cable runs.
- **Power supply** – A 110VAC, wall-mount power supply is attached to the USA/domestic version of the P/2 DA1, and a 110-220VAC, desktop power supply is attached to the world version of the P/2 DA1.
- **Part numbers**  
60-319-01 (USA/domestic)  
60-319-02 (World)

## APPLICATION DIAGRAM



# P/2 DA2 PLUS



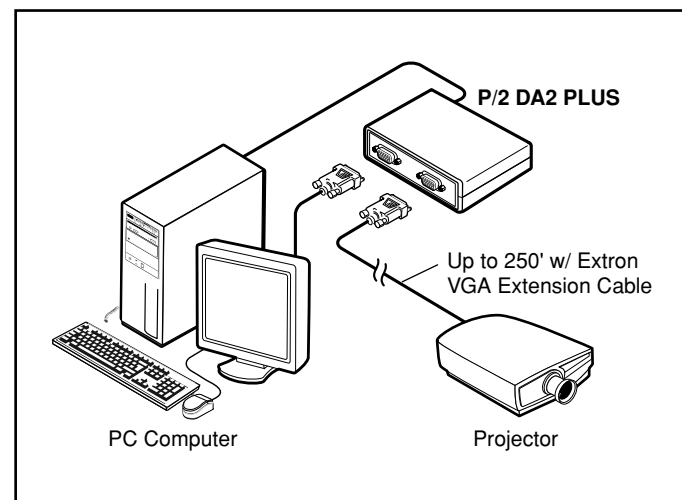
P/2 DA2 PLUS

Extron's P/2 DA2 PLUS is a one input, two buffered output, high resolution VGA/SXGA distribution amplifier. This DA drives a high resolution computer-video signal up to 250 feet through high-quality cable, such as Extron's VGA cable.

## FEATURES

- **Bandwidth** – 270 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with all modes/resolutions of VGA, SVGA, XGA, and SXGA graphic cards, monitors, and projectors.
- **Input connector** – Attached 4' 15-pin HD male cable is included for reliable connection of video signals.
- **Output connectors** – Features 15-pin HD female connectors for buffered video output and buffered local monitor output.
- **ID bits** – ID bits are routed to local monitor output.
- **Power supply** – A 110VAC, wall-mount power supply is attached to the USA/domestic version of the P/2 DA2 PLUS, and a 110-220VAC, desktop power supply is attached to the world version of the P/2 DA2 PLUS.
- **Part numbers**  
60-046-01 (USA/domestic)  
60-046-02 (World)

## APPLICATION DIAGRAM



# P/2 DA2 LC



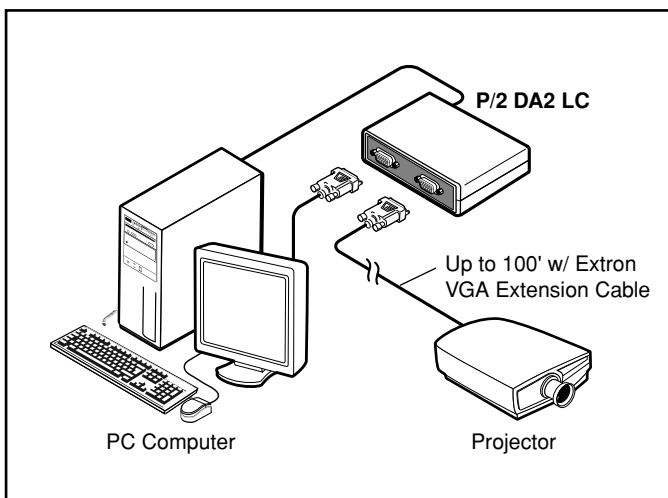
P/2 DA2 LC

Extron's P/2 DA2 LC is a one input, two output, medium resolution VGA/XGA distribution amplifier. This cost-effective DA drives a computer-video signal up to 100 feet through high-quality cable, such as Extron's VGA cable.

## FEATURES

- **Bandwidth** – 150 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with all modes/resolutions of VGA and XGA graphic cards, monitors, and projectors.
- **Input connector** – Attached 1' 15-pin HD male cable is included for reliable connection of video signals.
- **Output connectors** – Features 15-pin HD female connectors for buffered video output and non-buffered local monitor output.
- **ID bits** – ID bits are routed to local monitor output.
- **Power supply** – A 110VAC, wall-mount power supply is attached to the USA/domestic version of the P/2 DA2 LC, and a 110-220VAC, desktop power supply is attached to the world version of the P/2 DA2 LC.
- **Part numbers**  
60-160-01 (USA/domestic)  
60-160-02 (World)

## APPLICATION DIAGRAM



# P/2 DA2 MT



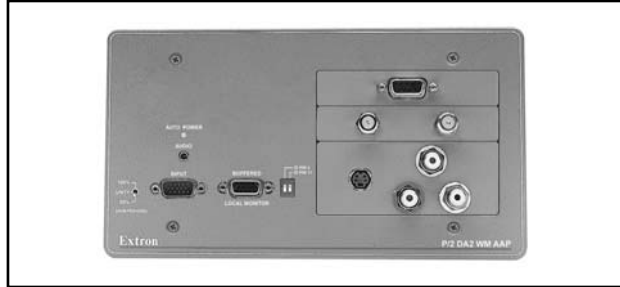
P/2 DA2 MT

Extron's P/2 DA2 MT is a mountable, one input, two buffered output, high resolution VGA/SXGA distribution amplifier with audio. This DA drives a high resolution computer-video signal up to 250 feet through high-quality cable, such as Extron's VGA cable. For convenient access, the P/2 DA2 MT may be mounted under a desk or through a desk (through-desk mounting brackets are optional).

## FEATURES

- **Bandwidth** – 300 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with all modes/resolutions of VGA, SVGA, XGA, and SXGA graphic cards, monitors, and projectors. Compatible with Mac sources and Mac-compatible displays with optional Mac/VGA adapter.
- **Input connector** – Features a 15-pin HD female connector for video input.
- **Output connectors** – Features 15-pin HD female connectors for buffered video output and buffered local monitor output.
- **Audio connectors** – Features a 3.5 mm female audio jack for audio input and a 3.5 mm captive screw connector for balanced or unbalanced audio output.
- **Audio interfacing** – Unbalanced audio may be converted to balanced audio. Balanced audio eliminates noise usually associated with unbalanced audio when distributed over long cable runs.
- **ID bits** – ID bits are normally routed to local monitor output. ID bit termination is dip switch selectable.
- **Level and peaking (display output only)** – Level control adjusts brightness level of image. Peaking control adjusts sharpness level of image.
- **Mountable** – Includes detachable brackets for under-desk mounting. Optional brackets available for through-desk mounting.
- **Power supply** – Includes an external 9VDC desktop power supply (detachable).
- **Part number:** 60-295-01

# P/2 DA2 WM



*P/2 DA2 WM AAP (w/ Architectural Adapter Plates)*

Extron's P/2 DA2 WM is a wall-mountable, one input, two buffered output, high resolution VGA/SXGA distribution amplifier with audio. This DA drives a high resolution computer-video signal up to 250 feet through high-quality cable, such as Extron's VGA cable. The P/2 DA2 WM is enclosed in a two-gang box with a face plate (available in grey, black, or white). It fits flush into a wall, podium, or table and blends into the environment. The P/2 DA2 WM is available in an EC model compatible with European channel mounting systems. Both the P/2 DA2 WM and the P/2 DA2 EC are available with openings for optional Architectural Adapter Plates to provide additional signal pass-through connectors.

## FEATURES

The P/2 DA2 WM has the same features as the P/2 DA2 MT except for the following differences:

- **Bandwidth** – 270 MHz (-3dB) RGB video bandwidth.
- **Input connector** – Features a 15-pin HD male connector for input. The P/2 DA2 WM does not include an input cable.
- **Wall-mountable** – Self-contained enclosure allows easy installation into existing walls.
- **EC model** – EC version with white face plate available for European cable channel mounting systems.
- **Architectural Adapter Plate openings** – The P/2 DA2 WM and P/2 DA2 EC are available with openings for Architectural Adapter Plates (AAPs). Over 100 AAPs feature various video and audio signal pass-through connectors.
- **Power** – Accepts 12-24 AC/DC through captive screw connector. Power supply sold separately.

## PART NUMBERS

P/2 DA2 WM (grey) .....	60-296-01
P/2 DA2 WM (black) .....	60-296-02
P/2 DA2 WM (white) .....	60-296-03
P/2 DA2 EC (white) .....	60-296-10
P/2 DA2 WM AAP (grey) .....	60-311-01
P/2 DA2 WM AAP (black) .....	60-311-02
P/2 DA2 WM AAP (white) .....	60-311-03
P/2 DA2 EC AAP (white) .....	60-311-10

# P/2 DA4 PLUS P/2 DA6 PLUS



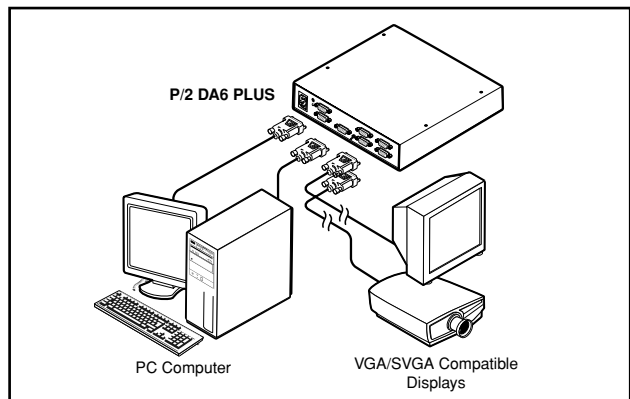
*P/2 DA6 PLUS Shown*

Extron's P/2 DA4 PLUS and P/2 DA6 PLUS are rack-mountable, high resolution VGA/SXGA distribution amplifiers. The P/2 DA4 PLUS provides four buffered outputs, and the P/2 DA6 PLUS provides six buffered outputs. Each DA drives a high resolution computer-video signal up to 250 feet through high-quality cable, such as Extron's VGA cable.

## FEATURES

- **Bandwidth** – 300 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with all modes/resolutions of VGA, SVGA, XGA, and SXGA graphic cards, monitors, and projectors. Compatible with Mac sources and Mac-compatible displays with optional Mac/VGA adapter.
- **Video connectors** – Features 15-pin HD female connectors for video input, buffered video outputs, and buffered local monitor output.
- **ID bits** – ID bits are routed to local monitor output.
- **Boost** – Boost switch helps maintain signal integrity for long cable runs.
- **Rack-mountable** – Housed in a 1U high, 1/2 rack width enclosure.
- **Power supply** – Includes a worldwide, 100-240VAC, 50/60 Hz, auto-switchable internal power supply.
- **Part numbers**  
 P/2 DA4 PLUS ..... 60-246-01  
 P/2 DA6 PLUS ..... 60-245-01

## APPLICATION DIAGRAM



# SW2 VGA DA2 A SW2 VGA DA2 AF



SW2 VGA DA2 A Shown

## Combination Switcher and Distribution Amplifier-

Extron's SW2 VGA DA2 A and SW2 VGA DA2 AF are two input, dual buffered output, mountable combination switchers and distribution amplifiers. Each allows the user to select between two HD-15 sources and output the selected source on two HD-15 outputs. For audio, the SW2 VGA DA2 A or SW2 VGA DA2 AF switches two stereo audio sources to one stereo audio output. Each is ideal for a boardroom or other small-scale installation that requires two computers to share a local monitor and projector. Each output drives a high resolution computer-video signal up to 250 feet through high-quality cable, such as Extron's VGA cable. The difference between the SW2 VGA DA2 A and SW2 VGA DA2 AF is the placement of the input connectors. For convenient front panel connection to a computer, the SW2 VGA DA2 AF offers a HD-15 connector and a 3.5 mm female audio jack for one input on the front panel, and all other connectors are on the back. The SW2 VGA DA2 A offers all connectors on the back panel.

## FEATURES

- **Bandwidth** – 250 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with VGA, SVGA, XGA, and SXGA sources, monitors, and projectors. Compatible with Mac sources and Mac-compatible displays with optional Mac/VGA adapter.
- **Video connectors** – Two inputs and two independently buffered outputs using 15-pin HD female connectors.
- **Audio connectors** – Two unbalanced audio inputs using 3.5 mm female audio jacks and one balanced or unbalanced audio output using 3.5 mm captive screw connector.
- **Auto-switchable** – Auto-switching and manual modes available.
- **Control** – Tactile switch buttons with LEDs and contact closure control.
- **Power** – Accepts 12 VDC through jack or captive screw connector. Includes external power supply.
- **Mountable** – Includes detachable brackets for under-desk mounting. Optional mounting brackets available for through-desk mounting. Rack-mount/through-desk mounting
- **Part numbers**  
 SW2 VGA DA2 A ..... 60-297-01  
 SW2 VGA DA2 AF ..... 60-297-02  
 Mounting Kit..... 70-077-03

# MAC DA2 PLUS



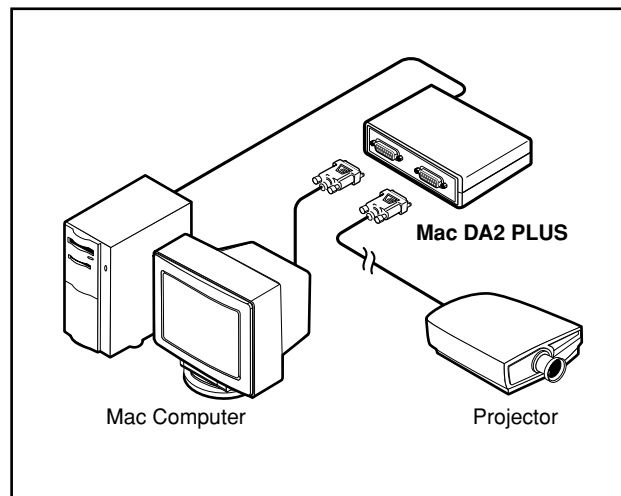
Mac DA2 PLUS

Extron's Mac DA2 PLUS is a one input, two buffered output, high resolution Mac distribution amplifier. This DA drives a high resolution Mac computer-video signal up to 200 feet through high-quality cable, such as Extron's Mac/Quadra cable. For Mac boot-up, with or without a monitor, the Mac DA2 PLUS includes a sense line (ID bit) rotary switch with twelve resolutions available.

## FEATURES

- **Bandwidth** – 270 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with all modes/resolutions of Mac, Quadra, Performa, Centris, Radius, E-Machines, PowerMac, and PowerBook sources and Mac-compatible displays.
- **Input connector** – Attached 4' 15-pin D male cable is included for reliable connection of video signals.
- **Output connectors** – Features 15-pin D female connectors for buffered video output and buffered local monitor output.
- **ID bits** – Sense line termination available at twelve different resolutions for Mac boot-up, with or without monitor.
- **Power supply** – Includes an external 9VDC desktop power supply.
- **Part number:** 60-081-02

## APPLICATION DIAGRAM



# 13W3 DA2



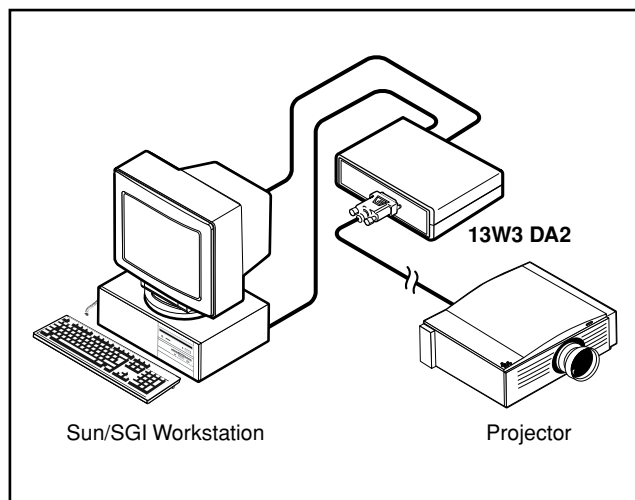
13W3 DA2

Extron's 13W3 DA2 is a one input, two buffered output, high resolution 13W3 distribution amplifier. This DA drives a high resolution computer-video signal up to 100 feet through high-quality cable, such as Extron's 13W3 cable. The 13W3 DA2 maintains signal integrity during long cable runs.

## FEATURES

- **Bandwidth** – 300 MHz (-3dB) RGB video bandwidth.
- **Compatibility** – Compatible with Sun and SGI workstations and workstation-compatible displays.
- **Input connector** – Attached 4' 13W3 male cable is included for reliable connection of video signals.
- **Output connectors** – Features 13W3 female connectors for buffered video output and buffered local monitor output.
- **ID bits** – ID bits are routed to local monitor output.
- **Power supply** – Includes an external 9VDC desktop power supply.
- **Part number:** 60-128-02

## APPLICATION DIAGRAM



# SPECIFICATIONS

### Video Input

Number/signal type	
• SW 2 VGA DA2 A/AF .....	2 VGA, SVGA, XGA, SXGA
• P/2 DA2 LC .....	1 VGA, SVGA
• All others .....	1 VGA, SVGA, XGA, SXGA

### Connectors

• P/2 DA2 WM .....	1 15-pin HD male
• Mac DA2 PLUS .....	1 15-pin D female
• 13W3 DA2 .....	1 13W3 female
• SW2 VGA DA2 A/AF .....	2 15-pin HD female
• All others .....	15-pin HD female

Nominal levels .....	Analog 0.5V to 1.2V p-p
Maximum levels .....	Analog 2VDC with no offset
Impedance .....	75 ohms
Horizontal frequency .....	15 kHz to 135 kHz

Vertical frequency .....	30 Hz to 170 Hz
	(Except P2 DA2 LC: 15kHz to 45kHz)
	(Except P2 DA2 LC: 30Hz to 120Hz)

### Video Throughput

Gain	
• P/2 DA 4 & 6 PLUS .....	0.7V or 1.0V, switchable
• P/2 DA1 .....	0.7V, 0.8V, 0.9V
• P/2 DA2 MT .....	0.7V, 0.8V
• P/2 DA2 WM .....	0.7V, 0.8V

### Bandwidth

• P/2 DA2 LC .....	150 MHz (-3dB)
• P/2 DA2 WM .....	270 MHz (-3dB)
• P/2 DA2 PLUS .....	270 MHz (-3dB)
• Mac DA2 PLUS .....	270 MHz (-3dB)
• SW 2 VGA DA2 A/AF .....	250 MHz (-3dB)
• All others .....	300 MHz (-3dB)

### Video Output

Number/signal type	
• P/2 DA1 .....	1 VGA, SVGA, XGA, SXGA
• P/2 DA2 LC .....	2 VGA, SVGA, XGA
• P/2 DA4 & 6 PLUS .....	4 & 6 (respectively) VGA, SVGA, XGA, SXGA
• All others .....	2 VGA, SVGA, XGA, SXGA

### Connectors

• P/2 DA1 .....	1 15-pin HD male
• Mac DA2 PLUS .....	2 15-pin D female
• 13W3 DA2 .....	2 13W3 female
• P/2 DA4 & 6 PLUS .....	4 & 6 respectively 15-pin HD
• All others .....	2 15-pin HD female

Nominal level .....	Unity, 1x input level
Impedance .....	75 ohms

### Audio Input

Number/signal type	
• P/2 DA2 WM and P/2 DA2 MT .....	1 stereo, unbalanced
• SW 2 VGA DA2 A/AF .....	2 stereo, unbalanced

### Connectors

• P/2 DA2 WM and P/2 DA2 MT .....	1 3.5 mm stereo jack
• SW2 VGA DA2 A/AF .....	2 3.5 mm stereo jacks

### Audio Throughput

Gain	
• P/2 DA2 MT, P/2 DA2 WM, SW 2 VGA DA2 A/AF .....	Unbalanced 0 dB, balanced +6 dB

### Frequency response

• P/2 DA2 MT, P/2 DA2 WM, SW 2 VGA DA2 A/AF .....	0 Hz to 20 kHz
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### Audio Output

Number/signal type	
• P/2 DA2 MT, P/2 DA2 WM, SW 2 VGA DA2 A/AF .....	1 stereo balanced or unbalanced

### Connectors

• P/2 DA2 MT, P/2 DA2 WM, SW 2 VGA DA2 A/AF .....	1 3.5 mm captive screw, 5 pole
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Impedance .....	50 ohms, unbalanced; 100 ohms, balanced
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EXTRON ELECTRONICS/RGB SYSTEMS, INC.  
1230 South Lewis Street, Anaheim, CA 92805  
800.633.9876 714.491.1500 FAX 714.491.1517  
U.S.A.

EXTRON ELECTRONICS, EUROPE  
Beeldschermweg 6C, 3821 AH Amersfoort  
+31.33.453.4040 FAX +31.33.453.4050  
The Netherlands

EXTRON ELECTRONICS, ASIA  
41B Kreta Ayer Road, Singapore 089003  
+65.226.0015 FAX +65.226.0019  
Singapore

EXTRON ELECTRONICS INFORMATION  
EXTRONWEB™: www.extron.com  
EXTRONFAX™: 714.491.0192  
24-hour access—worldwide!

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