PA 300

PEAKING AMPLIFIER FOR RGBHV

- 350 MHz (-3 dB) RGB bandwidth
- Drives 1600x1200 UXGA resolution signals up to 1,000 feet (300 meters)
- Continuously variable controls for gain, low frequency and high frequency peaking
- Restores sync to TTL level
- HDTV tri-level sync compatibility
- Rack-mountable metal enclosure
- Internal international power supply

The Extron PA 300 is a peaking amplifier capable of driving 1600x1200 UXGA resolution signals up to 600 feet (185 meters) when used with Extron MHR or similar cable, and up to 1,000 feet (300 meters) when used with higher performance coaxial cable such as Extron RG6. It is ideal for a wide range of applications in lecture halls, conference rooms, auditoriums, command and control centers, and other installations where signal integrity must be maintained over long cable runs.

DESCRIPTION

The Extron **PA 300** Peaking Amplifier offers an RGB video bandwidth of 350 MHz (-3dB) and is designed for systems requiring long cable runs of up to 1,000 feet (300 meters), where signal quality is a primary concern. The PA 300 maintains signal integrity with performance enhancing features such as variable gain, low and high frequency peaking, and support for bi-level and HDTV tri-level sync.

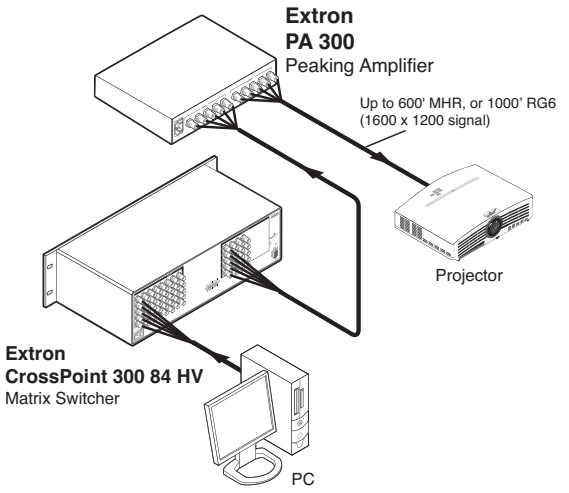
Variable gain control compensates for voltage variances, and allows sharp, bright image reproduction from virtually any signal source. Independent controls for low frequency and high frequency peaking compensate for smearing and detail loss, respectively, for superb image reproduction without regard to cable length or type.

The PA 300 restores the low level sync voltages found on many computers, as low as 1.8 volts, to normal TTL levels. This sync restoration prepares the signals to run down long cable runs and offers enhanced compatibility with a wide range of computers, display devices, and cable types.

FEATURES

- **350 MHz (-3 dB) RGB video bandwidth** – Maintains signal integrity over very long cable runs without visible resolution loss or smearing
- **Drives high resolution signals long distances** – Capable of driving RGB video signals up to 600 feet (185 meters) with Extron MHR or similar cable, and up to 1,000 feet (300 meters) with Extron RG6 or similar cable
- **Variable gain** – Boosts overall signal voltage level to maintain image brightness and compensate for voltage losses due to cable resistance.
- **Separate low frequency and high frequency peaking** – Eliminates low frequency image smearing, improves high frequency detail by compensating for losses due to cable capacitance
- **Restores sync to TTL level** – Ensures that the monitor or projector accurately locks to sync and displays a stable image
- **Tri-level sync compatibility** – Supports new HDTV sources with tri-level sync signals
- **Internal international power supply**

APPLICATION DIAGRAM



SPECIFICATIONS

VIDEO

Gain	-2 to +4 dB (x0.75 to x1.4), adjustable; default = 0 dB
Peaking/equalization	LF pot: 0 to 3 dB at 10 MHz, adjustable HF pot: 0 to 15 dB at 120 MHz, adjustable
Bandwidth	350 MHz (-3 dB)
Output cable driving distance	Up to 600' (185 m) with Extron Mini HR cable Up to 1000' (300 m) with Extron RG6 or RG59 cable (tested with a 1600x1200, 60 Hz computer video signal)

VIDEO INPUT

Number/signal type	1 analog RGBHV, RGBS, RGsB, RsGsBs
Connectors	5 female BNC
Nominal level	0.7 Vp-p for RGB excluding sync
Minimum/maximum levels	Analog: 0.4 V to 2.0 Vp-p with no offset at unity gain
Impedance	75 ohms
Horizontal frequency	15 kHz to 150 kHz
Vertical frequency	40 Hz to 140 Hz
Return loss	-30 dB @ 0 to 5 MHz
DC offset (max. allowable)	1 V

VIDEO OUTPUT

Number/signal type	1 analog RGBHV, RGBS, RGsB
Connectors	5 BNC female
Nominal level	0.7 Vp-p for RGB excluding sync when gain and peaking potentiometers are set to unity gain (follows input)
Minimum/maximum levels	Analog: 0.4 V to 2.0 Vp-p
Impedance	75 ohms
Return loss	-32 dB @ 5 MHz
DC offset	±5 mV with input at 0 offset

SYNC

Input type	RGBHV, RGBS, RGsB, RsGsBs
Output type	RGBHV, RGBS, RGsB, RsGsBs
Input level	
RGBHV, RGBS	TTL: 1.8 V to 5.0 Vp-p
RGsB, RsGsBs	Analog: 0.3 Vp-p
Output level	
RGBHV, RGBS	TTL: 5.0 Vp-p, unterminated
RGsB, RsGsBs	Analog: 0.3 Vp-p, follows input
Input impedance	510 ohms
Output impedance	50 ohms
Max. propagation delay	H: 50 ns V: 110 ns
Max. rise/fall time	H: 2.2 ns V: 2.1 ns
Polarity	RGBHV, RGBS: positive or negative (follows input) RGsB, RsGsBs: negative

GENERAL

Power	100 VAC to 240 VAC, 50/60 Hz, 3.6 watts, internal, autoswitchable
Rack mount	Yes, with optional 1U rack shelf, part #60-190-01 or 60-604-01; or optional 1U, 6" deep rack shelf, part #60-190-10 or 60-604-10.
Enclosure type	Metal
Enclosure dimensions	1.7" H x 8.7" W x 6.0" D (1U high, half rack wide) 4.3 cm H x 22.1 cm W x 15.2 cm D (Depth excludes connectors.)
Product weight	1.5 lbs (0.7 kg)
Shipping weight	3 lbs (2 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%.

Model	Version Description	Part Number
PA 300	PA peaking amplifier for RGBHV	60-755-01

Specifications are subject to change without notice.

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