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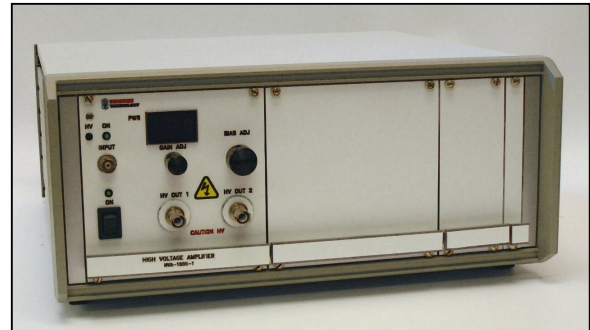
MODEL HVA-1M HV AMPLIFIER SERIES

DATA SHEET 758

MODEL HVA-1M HV AMPLIFIER SERIES

FEATURES:

- 800 V_{pp} output
- High stability
- DC-1 MHz response
- Rise/fall time 50nsec digital
- E- O modulator applications



Model HVA-1M Series High Voltage Amplifiers are useful for driving electro-optic Modulators, Pockels cells, Deflectors or Piezoelectric Positioners or Actuators. The driver exhibits high gain, wide frequency response, DC coupled outputs, good stability and can produce an output of 800Vpp (+/-400 Vpk) differential drive into a 100 pF capacity load.

The Model HVA-1M is an analog amplifier with rise and fall times of less than 350 nsec. The front panel gain control easily adjusts the output to cover a wide range of voltages. The output offset is adjustable and is normally set at the factory for AC input and output voltages. Optionally, it can easily be set up for unipolar full swing, 0-400V output. A DVM digital display of the DC bias makes for easy readout.

The Model HVA-1M-D is a pulse amplifier that will digitally switch between 0 and an adjustable maximum voltage of 400V. A convenient gain pot sets the upper level of the output. The DC bias knob sets the optical bias when used with EO modulators such as the Model 28 or 334 EOMs. Optical rise and fall times, when used as such, are typically 20-40 nsec depending on the load.

The Model HVA-1M-2 has more than sufficient voltage (800VPP) out for most applications and is used in cases where a DC offset difference between channels is not required as in driving a phase modulator, for example. No DVM Display is provided as standard. For driving an intensity modulator, a DC bias option (-BIAS) is available and provides up to +/- 400V output bias suitable for most EO Modulators.

SPECIFICATIONS:

MODEL	HVA-1M	HVA-1M-D	HVA-1M-2 (800Vpp differential)
OUT1 output voltage	+/- 200 Vpk (400Vpp)	400 Vpp	+/- 200 Vpk (400Vpp)
OUT2 output voltage	+/- 200 V bias @ 500 Kohm	+/- 200 V bias @ 500Kohm	+/- 200 Vpk (400Vpp)
Input sensitivity	+/- 2.0 Vpp for full output	0-3V Vpp (TTL into 50 ohms)	+/- 2.0 Vpp for full output
Drift	+/-0.1%/deg C	+/-0.1%/deg C	+/-0.1%/deg C
Bandwidth @ full output	DC-1 MHz @ 100 pF load	DC-1 MHz @ 100 pF load	DC-1 MHz @ 100 pF load
Rise / fall time	350 nsec	50 nsec	350 nsec
Min pulse width	400nsec	150 nsec	400nsec
Output impedance	1 KOhm source, 10 W sink	50 Ohm, 10 W source/sink	1 KOhm source, 10 W sink
Connectors	2 BNC for Output 1 & 2	2 BNC for Output 1 & 2	2 BNC for Output 1 & 2
AC power requirements	100, 115, 220 VAC, 300 W	100, 115, 220 VAC, 300 W	100, 115, 220 VAC, 300 W