True DC-Coupled 500 MHz Low-Noise Voltage Amplifier



Features	 Gain 20 dB (x10) Bandwidth DC 500 MHz True DC-Coupling, Adjustable Output Offset Voltage 3.0 nV/√Hz Input Noise 		
Applications	 Oscilloscope and Transient Recorder Preamplifier Ideal for Analyzing Digital Signals (No Baseline Shift at any Digital Code) Photomultiplier and Microchannel Plate Amplifier Signal Booster for Optical Receivers and Current Amplifiers Time-Resolved Pulse and Transient Measurements 		
Specifications	Test Conditions	Vs = ± 15 V, Ta = 25°C	
Gain	Gain Gain Accuracy	20 dB (@ 50 Ω load) \pm 0.2 dB	
Frequency Response	Lower Cut-Off Frequency Upper Cut-Off Frequency (-3 dB) Rise/Fall Time (10% - 90%)	DC 500 MHz (± 10 %) 750 ps	
Input	Input Impedance Input Voltage Noise Integrated Input Noise Input Bias Current Input Offset Voltage Input Voltage Drift	50 Ω II 3 pF 3.0 nV/√Hz (@ 200 MHz) 0.5 mV peak-peak 15 μA typ. 1 mV typ. 10 μV / °C	
Output	Output Impedance Output Voltage Max. Output Current Output Offset Trimmer Range Slew Rate	$50~\Omega$ (terminate with $50~\Omega$ load for best performance) \pm 1 V (@ $50~\Omega$ load, for linear amplification) $100~\text{mA}$ $\pm~100~\text{mV}$ 2,600 V/µs (@ $50~\Omega$ load)	
Power Supply	Supply Voltage Supply Current	\pm 15 V \pm 40 mA typ. (depends on operating conditions, recommended power supply capability minimum \pm 150 mA)	
Case	Weight Material	200 g (0.5 lbs) AlMg4.5Mn, nickel-plated	

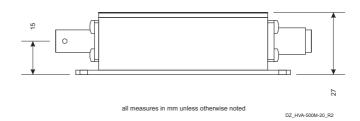
SOPHISTICATED TOOLS FOR SIGNAL RECOVERY

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Specifications (continued) Temperature Range	Storage Temperature Operating Temperature	- 40 + 100 °C 0 + 60 °C
Absolute Maximum Ratings	Power Supply Voltage Input Voltage	± 20 V ± 5 V
Connectors	Input Output Power Supply	BNC LEMO series 1S, 3-pin fixed socket Pin 1: + 15V Pin 2: - 15V Pin 3: GND PIN 2 PIN 3 GND PIN 3 GND
Dimensions	250 Ohm	94 87 74 50 Ohm BW ICC-500 MHz

HVA-500M-20-B



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