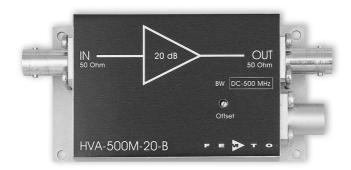
True DC-Coupled 500 MHz Low Noise Voltage Amplifier

Datasheet



Features	 Gain 20 dB (x10) Bandwidth DC 500 MHz True DC-Coupling, Output Offset Voltage Adjustable 3.4 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 3.4 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 Voltage Slew Rate	$50~\Omega$ (terminate with $50~\Omega$ load for best performance) 2 Vpp (@ $50~\Omega$ load, for linear amplification) 100 mA 0 V, adjustable by offset trimpot within $\pm~70~\text{mV}$ 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	

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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	BNC BNC	
	Power Supply	LEMO series 1S, 3-pin fixed socket Pin 1: + 15V Pin 2: - 15V Pin 3: GND	
		PIN 2 PIN 1 +Vs PIN 3 GND	
Dimensions	15.0 mm	94,0 mm 74,0 mm OUT Offset Diameter 0.32 mm	
		DZ-HW-200M-20-B 1	

FEMTO Messtechnik GmbH Paul-Lincke-Ufer 34 D-10999 Berlin \cdot Germany Tel.: +49 (0)30 - 4 46 93 86

Fax: +49 (0)30 - 4 46 93 88 e-mail: info@femto.de http://www.femto.de

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