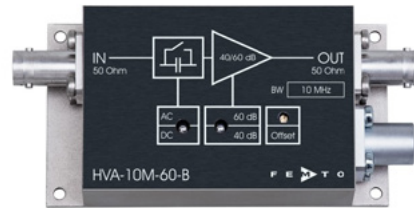


Datasheet

HVA-10M-60-B

10 MHz Low-Noise
Voltage Amplifier



Features

- **Switchable Gain 40/60 dB (x100 / x1,000)**
- **Bandwidth DC ... 10 MHz**
- **Low Input Noise of 0.9 nV/√Hz**
- **Switchable AC/DC Coupling**

Applications

- **Oscilloscope and Transient Recorder Preamplifier**
- **Photomultiplier and Microchannel Plate Amplifier**
- **Signal Booster for Optical Receivers and Current Amplifiers**
- **Time-Resolved Pulse and Transient Measurements**

Specifications

	Test Conditions	$V_s = \pm 15 \text{ V}$, $T_a = 25^\circ\text{C}$
Gain	Gain	40/60 dB switchable
	Gain Accuracy	$\pm 0.2 \text{ dB}$
Frequency Response	Lower Cut-Off Frequency (-3 dB)	DC/1 kHz switchable
	Upper Cut-Off Frequency (-3 dB)	10 MHz
	Rise/Fall Time (10% - 90%)	35 ns
Input	Input Impedance	$50 \Omega \parallel 12 \text{ pF}$
	Input Voltage Noise	0.9 nV/√Hz (@ 2 MHz, 60 dB gain) 1.8 nV/√Hz (@ 2 MHz, 40 dB gain)
	Integrated Input Noise	20 μV peak-peak (@ 60 dB gain)
		50 μV peak-peak (@ 40 dB gain)
	Input Bias Current	18 μA
	Input Offset Voltage	500 μV typ.
Input Voltage Drift	1 μV/°C	
Output	Output Impedance	50Ω (terminate with 50Ω load for best performance)
	Output Voltage	$\pm 3.5 \text{ V}$ (@ 50Ω load, for linear amplification)
	Max. Output Current	100 mA
	Output Offset Trimmer Range	$\pm 500 \text{ mV}$
	Slew Rate	500 V/μs (@ 50Ω load)
Power Supply	Supply Voltage	$\pm 15 \text{ V}$
	Supply Current	$\pm 70 \text{ mA}$ typ. (depends on operating conditions, recommended power supply capability min. $\pm 150 \text{ mA}$)
Case	Weight	200 g (0.5 lbs)
	Material	AlMg4.5Mn, nickel-plated

SOPHISTICATED TOOLS FOR SIGNAL RECOVERY



DE-HVA-10M-60-B_R4/JM/25FEB2019

Datasheet

HVA-10M-60-B

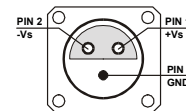
**10 MHz Low-Noise
Voltage Amplifier**

Specifications (continued)

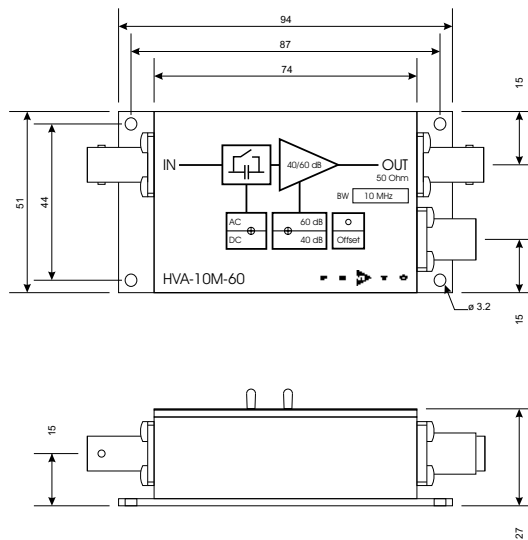
Temperature Range	Storage Temperature	- 40 ... + 100 °C
	Operating Temperature	0 ... + 60 °C

Absolute Maximum Ratings	Power Supply Voltage	± 20 V
	Input Voltage	± 5 V

Connectors	Input	BNC
	Output	BNC
	Power Supply	LEMO series 1S, 3-pin fixed socket
		Pin 1: + 15V Pin 2: - 15V Pin 3: GND



Dimensions



all measures in mm unless otherwise noted

D2_HVA-10M-60_R2

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SOPHISTICATED TOOLS FOR SIGNAL RECOVERY

