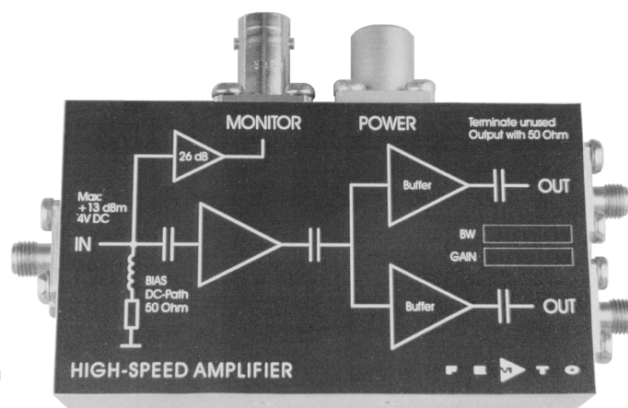


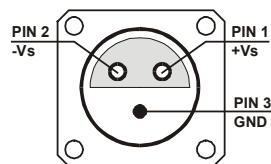
2 GHz High-Speed Amplifier



<p>Features</p>	<ul style="list-style-type: none"> • Bandwidth 10 kHz ... 2 GHz • Rise Time 175 ps • Gain 20 dB (500 V/A) • Input VSWR 1 : 1.15 • Integrated Bias Circuit • Monitor Output • Two identical Signal Outputs 	
<p>Applications</p>	<ul style="list-style-type: none"> • Preamplifier for ultra-fast Detectors (Microchannel-Plates, Photomultipliers, Avalanche-Photodiodes, PIN-Photodiodes etc.) • Oscilloscope and Transient-Recorder Preamplifier • Time-Resolved Pulse and Transient Measurements 	
<p>Block Diagram</p>		
<p>Specifications</p>	<p>Test Conditions</p> <p>Gain</p> <p>Gain Accuracy</p> <p>Gain Flatness</p> <p>Frequency Response</p> <p>Lower Cut-Off Frequency</p> <p>Upper Cut-Off Frequency</p> <p>Time Response</p> <p>Rise / Fall Time (10% - 90%)</p> <p>Input</p> <p>DC Input Impedance</p> <p>RF Input Impedance</p> <p>50 Ω Noise Figure</p> <p>Equivalent Input Voltage Noise</p> <p>Equivalent Input Current Noise</p> <p>Input VSWR</p> <p>Maximum Input VSWR</p>	<p>Vs = ± 15 V, Ta = 25°C, System Impedance = 50 Ω</p> <p>20 dB (500 V/A)</p> <p>± 1 dB</p> <p>± 0.2 dB</p> <p>10 kHz</p> <p>2 GHz</p> <p>175 ps</p> <p>50 Ω</p> <p>50 Ω</p> <p>5.2 dB (@ f < 1 GHz)</p> <p>680 pV/√Hz (@ f < 1 GHz)</p> <p>13.6 pA/√Hz (@ f < 1 GHz)</p> <p>1 : 1.15 (@ f < 1.5 GHz)</p> <p>1 : 1.35 (@ f < 3 GHz)</p>

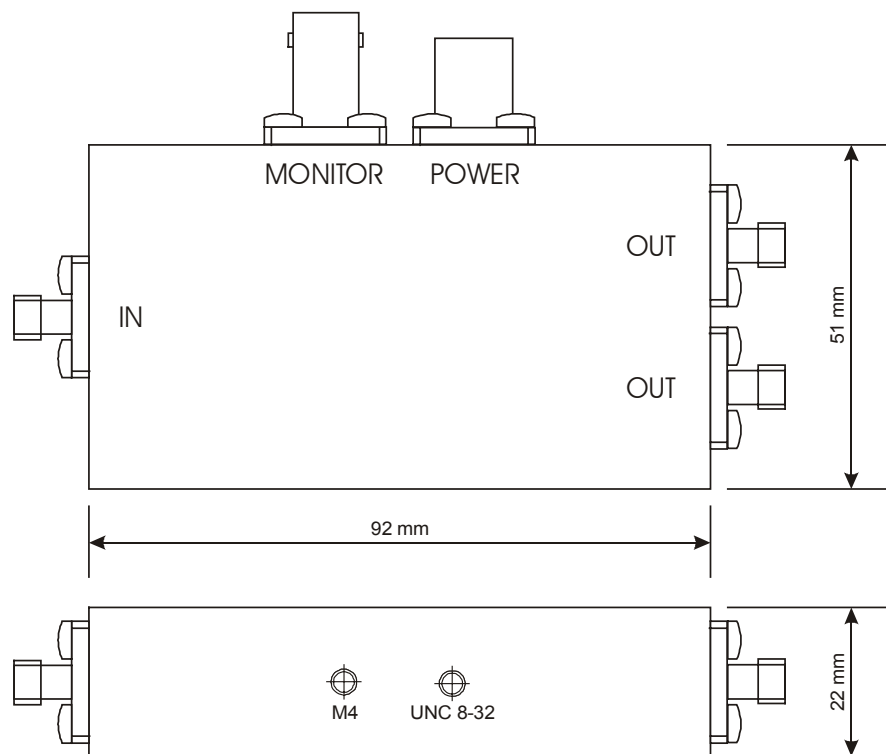
2 GHz High-Speed Amplifier

Output	Two identical Signal Outputs: Output Impedance 50 Ω Maximum Output VSWR 1 : 2.5 (@ f < 3 GHz) Output Power P _{1dB} + 12.5 dBm (@ f < 1 GHz) Output Peak-Peak Voltage 2.5 Vpp (@ f < 500 MHz, for linear Amplification) Isolation between Outputs 15 dB (@ f < 3 GHz)
Monitor Amplifier	Gain 26 dB (1 kV/A) Lower Cut-Off Frequency DC Upper Cut-Off Frequency 100 kHz Output Voltage ± 10 V (@ 10kΩ load)
Power Supply	Supply Voltage ± 15 V Supply Current + 160 / -10 mA
Case	Weight 180 gr. (0.41 lbs) Material AlMg4.5Mn, nickel-plated
Temperature Range	Storage Temperature - 40 ... + 100 °C Operating Ambient Temperature 0 ... + 60 °C Operating Case Temperature 37 °C (@ Ta = 25 °C)
Absolute Maximum Ratings	Power Supply Voltage ± 20 V DC and LF Input Voltage ± 4 V RF Input Power + 13 dBm
Connectors	Input SMA Signal Outputs SMA Monitor Output BNC Power Supply LEMO Series 1S, 3-pin fixed Socket Pin 1: + 15 V Pin 2: - 15 V Pin 3: GND



2 GHz High-Speed Amplifier

Dimensions



DZ01-0611-10

FEMTO Messtechnik GmbH
 Paul-Lincke-Ufer 34
 D-10999 Berlin · 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

Specifications are subject to change without notice. Information furnished herein is believed to be accurate and reliable. However, no responsibility is assumed by FEMTO Messtechnik GmbH for its use, nor for any infringement of patents or other rights granted by implication or otherwise under any patent rights of FEMTO Messtechnik GmbH. Product names mentioned may also be trademarks used here for identification purposes only.

© by FEMTO Messtechnik GmbH
 Printed in Germany