

## FET Input Voltage Amplifier for Ion-Beam Position Pickups

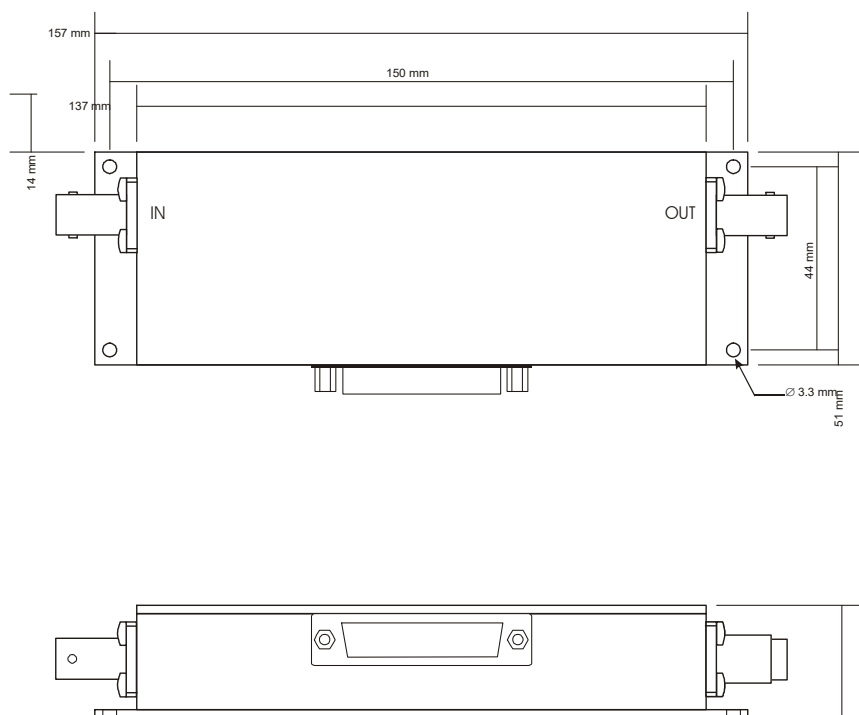
Features	<ul style="list-style-type: none"> <li>• <b>Gain electronically switchable 0 / 20 / 40 dB</b></li> <li>• <b>Bandwidth 5 kHz - 150 MHz</b></li> <li>• <b>4 nV/√Hz Input Noise (@ 40dB)</b></li> <li>• <b>Input Impedance 1 MΩ // 5 pF</b></li> </ul>																																																							
Specifications	<p><i>Test Conditions</i> <span style="float: right;"><i>Vs = ± 15 V, Ta = 25°C</i></span></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">Gain</td> <td style="width: 40%;">Gain switchable</td> <td style="width: 40%;">0, 20, 40 dB @ 50 Ω load</td> </tr> <tr> <td></td> <td>Gain Accuracy (Ta +10 ...+60°C)</td> <td>+0.0 / -0.2 dB absolut @ 100kHz – 1MHz ± 0.1 dB between Gain Settings @ 100kHz – 1MHz</td> </tr> <tr> <td></td> <td>Gain Flatness (Ta +10 ...+60°C)</td> <td>± 0.05 dB @ 100kHz – 1MHz ± 0.2 dB @ 20kHz – 10MHz</td> </tr> <tr> <td>Frequency Response</td> <td>Lower Cut-Off Frequency</td> <td>5 kHz typ.</td> </tr> <tr> <td></td> <td>Upper Cut-Off Frequency</td> <td>150 MHz typ.</td> </tr> <tr> <td></td> <td>Rise / Fall Time (10% - 90%)</td> <td>4 ns</td> </tr> <tr> <td>Input</td> <td>Input Impedance</td> <td>1 MΩ // 5pF</td> </tr> <tr> <td></td> <td>Equivalent Input Voltage Noise</td> <td>4 nV/√Hz @ 50 MHz, 40dB 4.5 nV/√Hz @ 50 MHz, 20dB 15 nV/√Hz @ 50 MHz, 0dB</td> </tr> <tr> <td></td> <td>Input Bias Current</td> <td>&lt;100 pA</td> </tr> <tr> <td>Output</td> <td>Output Impedance</td> <td>50 Ω</td> </tr> <tr> <td></td> <td>Output Peak-to-Peak Voltage</td> <td>1 Vpp max for full Accuracy @ 50 Ω Load</td> </tr> <tr> <td></td> <td>Max. Output Current</td> <td>± 30 mA</td> </tr> <tr> <td>Power Supply</td> <td>Supply Voltage</td> <td>± 15 V</td> </tr> <tr> <td></td> <td>Supply Current</td> <td>± 70 mA</td> </tr> <tr> <td>Case</td> <td>Weight</td> <td>300 gr. (0.7 lbs)</td> </tr> <tr> <td></td> <td>Material</td> <td>AlMg4.5Mn, nickel-plated</td> </tr> <tr> <td>Temperature Range</td> <td>Storage Temperature</td> <td>- 40 ... + 100 °C</td> </tr> <tr> <td></td> <td>Operating Temperature</td> <td>+10 ... + 60 °C</td> </tr> </table>		Gain	Gain switchable	0, 20, 40 dB @ 50 Ω load		Gain Accuracy (Ta +10 ...+60°C)	+0.0 / -0.2 dB absolut @ 100kHz – 1MHz ± 0.1 dB between Gain Settings @ 100kHz – 1MHz		Gain Flatness (Ta +10 ...+60°C)	± 0.05 dB @ 100kHz – 1MHz ± 0.2 dB @ 20kHz – 10MHz	Frequency Response	Lower Cut-Off Frequency	5 kHz typ.		Upper Cut-Off Frequency	150 MHz typ.		Rise / Fall Time (10% - 90%)	4 ns	Input	Input Impedance	1 MΩ // 5pF		Equivalent Input Voltage Noise	4 nV/√Hz @ 50 MHz, 40dB 4.5 nV/√Hz @ 50 MHz, 20dB 15 nV/√Hz @ 50 MHz, 0dB		Input Bias Current	<100 pA	Output	Output Impedance	50 Ω		Output Peak-to-Peak Voltage	1 Vpp max for full Accuracy @ 50 Ω Load		Max. Output Current	± 30 mA	Power Supply	Supply Voltage	± 15 V		Supply Current	± 70 mA	Case	Weight	300 gr. (0.7 lbs)		Material	AlMg4.5Mn, nickel-plated	Temperature Range	Storage Temperature	- 40 ... + 100 °C		Operating Temperature	+10 ... + 60 °C
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# FET Input Voltage Amplifier for Ion-Beam Position Pickups

Connectors

Input	N 50Ω
Output	N 50Ω
Power Supply and Digital Input (digital inputs TTL and opto-isolated)	Sub-D-25 female
Pin 1:	+ 15 V
Pin 2:	- 15 V
Pin 3:	0 V
Pin 9	digital ground
Pin 10	gain first stage (L=20dB, H=0dB)
Pin 11	gain second stage (L=20dB, H=0dB)
Pin 15	case
Pin 25	case

Dimensions



DZ01-40-17  
27

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