

## ► Input

Input configuration	Balanced differential input (2 BNC connectors) A-B (differential input) A, -B, A - Offset, -B + Offset (unbalanced single-ended input) GND (input shorted) Selectable from front panel
Input impedance	1M $\Omega$ $\pm$ 2% shunted by less than 35pF Capacitance matching between A and B Inputs: $\pm$ 3pF (100M $\Omega$ input impedance is possible by rearranging an internal shorting plug.)
Input bias current	3nA typ. (23°C), doubles every 10°C increase
Maximum allowable input voltage	$\pm$ 50V (at $\pm$ 10.5V, an input protector operates and automatically recovers after approx. 5s if the excessive input is removed.)
Common mode input voltage range	$\pm$ 10V (linear operation)
Common-mode rejection ratio	120 dB or greater (DC to 1kHz) (gain: 1000, common mode voltage: $\pm$ 5V)
Input referred noise	4nV/ $\sqrt{\text{Hz}}$ typ. (1 kHz, input short-circuited, gain: 1000)
DC offset voltage	Adjustable to zero by a screwdriver from the front panel. (Adjustment range: $\pm$ 0.5mV min. referred to input)
DC offset stability	$\pm$ 8 $\mu$ V/°C typ. referred to input (input short-circuited, gain: 1000)
Input DC offset cancellation range	DC components up to $\pm$ 5V (referred to input) can be canceled using the internal offset function with single-ended input.
Offset cancellation voltage range	$\pm$ 0.5V, $\pm$ 5V Accuracy: $\pm$ 3% of full scale Stability: $\pm$ 200 ppm/°C

## ► Output

Output configuration	Unbalanced single-ended output (BNC connector)
Output impedance	50 $\Omega$ $\pm$ 2% (f= 1 kHz)
Rated output voltage	$\pm$ 5V (RL = 50 $\Omega$ $\pm$ 1%, DC to 3MHz) $\pm$ 10V (RL $\geq$ 1M $\Omega$ , DC to 3MHz)
Maximum output voltage	$\pm$ 5.2V (RL = 50 $\Omega$ $\pm$ 1%, DC to 3MHz) $\pm$ 10.4V (RL $\geq$ 1M $\Omega$ , DC to 3MHz)
Maximum output current	$\pm$ 100mA
Slew rate	150V/ $\mu$ s typ. (RL = 50 $\Omega$ , Vo $\pm$ 5V) 300V/ $\mu$ s typ. (RL $\geq$ 1M $\Omega$ , Vo $\pm$ 10V)
Overvoltage detection level	$\pm$ 5V +10%, -0% (f=1kHz, RL = 50 $\Omega$ $\pm$ 1%)
Output noise	20mVrms max. input short-circuited, gain:1000, bandwidth 10MHz, 50 $\Omega$ load)

## ► Amplifier Section

Gain	10 to 100 (with 50 $\Omega$ load) in 1-, 2-, 5 sequence
Gain accuracy	$\pm$ 3% (f=1 kHz, RL $\geq$ 1M $\Omega$ )
Gain stability	$\pm$ 200 ppm/°C (f=1kHz, RL $\geq$ 1M $\Omega$ )
Frequency response	DC to 10MHz $\pm$ 0.2, -3dB (RL = 50 $\Omega$ , Vo = $\pm$ 1V)
Full-power bandwidth	DC to 3MHz min. (RL = 50 $\Omega$ , Vo = $\pm$ 5V)
Distortion	0.02% max. (f=1kHz, RL=50 $\Omega$ , Vo = $\pm$ 5V, gain: 10)
Settling time	300ns typ. (output voltage step: 5V, $\pm$ 1% error, gain: 10, RL=50 $\Omega$ , with band limiting filter off)
Overload reset time	10 $\mu$ s max. [gain: (10 to 100) $\times$ 1] 50 $\mu$ s max. [gain: (10 to 100) $\times$ 10] This is the time required for the output to reach within $\pm$ 1% of the rated output voltage after applying an input voltage of +5V or -5V for 10mS.
Propagation delay time	55 $\pm$ 10ns typ. (band limiting filter off) 310 $\pm$ 20ns typ. (1 MHz band limiting filter on)
Band limiting filter	Cut-off frequency: 1 MHz $\pm$ 10% (-3dB point) Roll-off: -18 dB/oct (phase linear) On/Off switchable from the front panel

## ► General Specifications

Power requirements	100VAC (switchable to 120, 220 or 240V) $\pm$ 10%, 48 to 62Hz, 30VA Insulation resistance: 30M $\Omega$ min. (measured with 500Vdc insulation tester) Withstand voltage: 1500 Vac for 1 minute
Operating temperature/humidity	0 to 40°C, 10 to 90% RH (noncondensing)
Storage temperature/humidity	-10 to +50°C, 10 to 80% RH (noncondensing)
Outer dimensions	215(W) x 88(H) x 350(D) mm 8.46(W) x 3.46(H) x 13.77(D) inch (not including protrusions) 224(W) x 91.5(H) x 384(D) mm 8.82(W) x 3.60(H) x 15.11(D) inch (including protrusions)
Weight	Approx. 4.5 kg, 9.9lbs