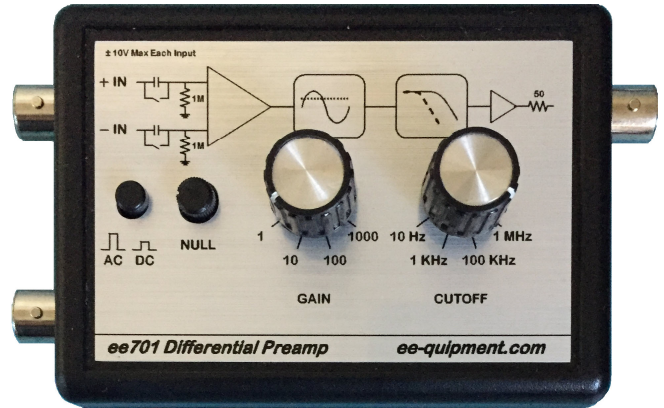
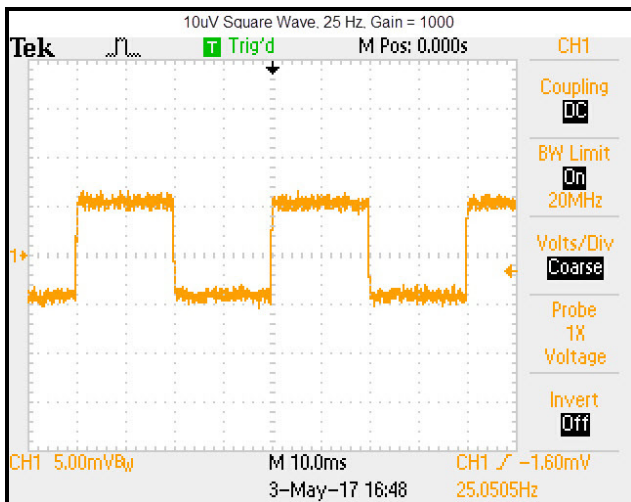


Differential Preamplifier

The ee701 is a true differential preamplifier that extends the input sensitivity of any oscilloscope up to 1000x. The wide input common mode accepts signals in the range of $\pm 10V$ while a selectable cutoff frequency limits wideband noise from obscuring the signal of interest.

- Enhances the input sensitivity of any oscilloscope
- True differential inputs
- Selectable gains of 1, 10, 100, & 1000
- Selectable noise filter cutoff of 10 Hz, 1 KHz, 100 KHz, and 1 MHz
- CMRR > 100 dB DC to 10 KHz
- Useable to 1 MHz
- Accurately measure microvolt-level signals
- Affordable for any lab



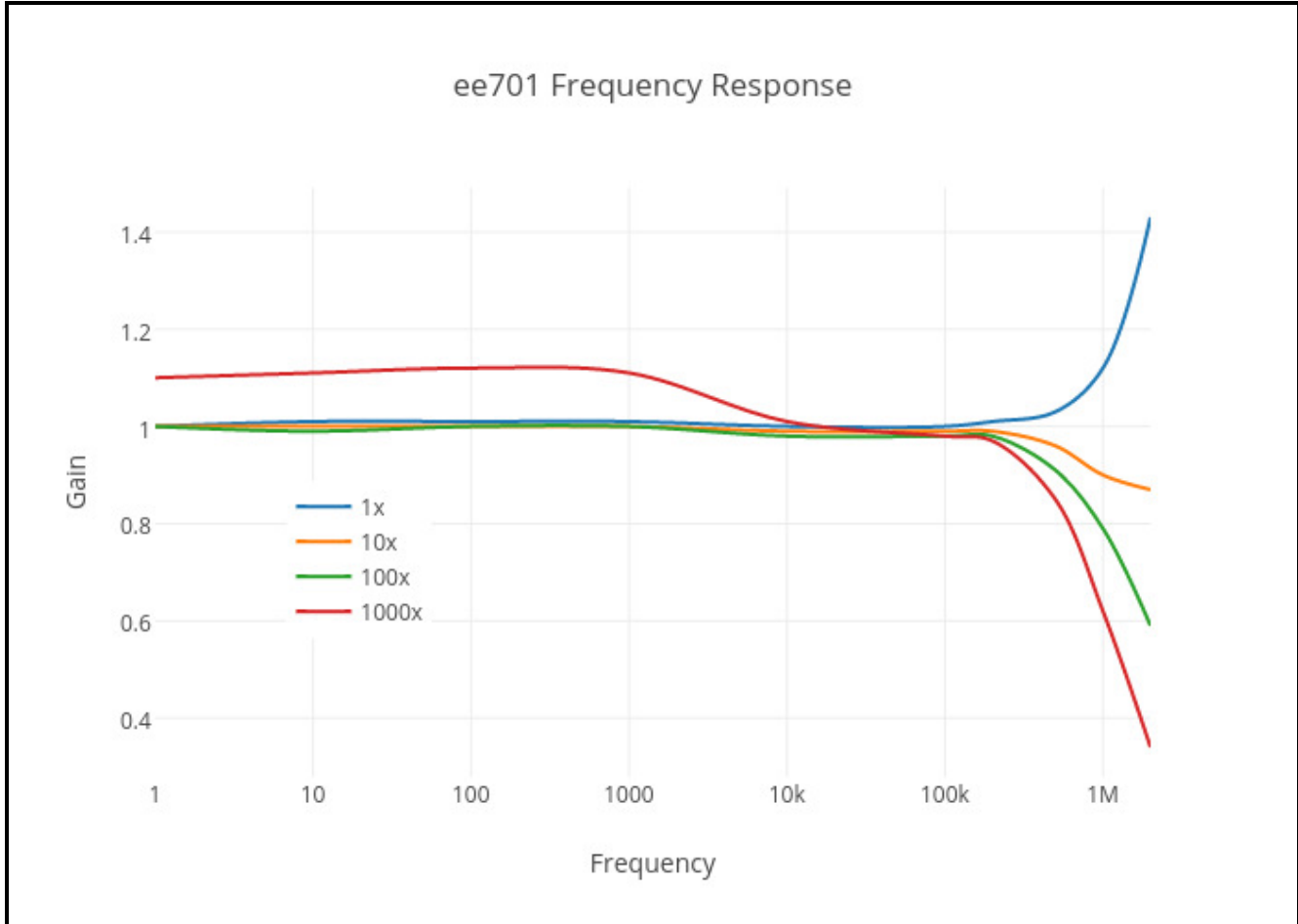
Easy to Use

Connect the oscilloscope probes to the ee701. Do not select x10 on the probes except at low amplification – any mismatches in the probes will be amplified which will distort the measurement accuracy. Select AC or DC input coupling and the desired amplification. Set the low pass filter to the lowest frequency that will allow the signal of interest to pass. This will minimize the wide-band noise in the system. Use the null control to set the DC zero level or AC midpoint level.

For repetitive signals the scope averaging function can be used to dramatically reduce any residual wide-band noise from the trace.

Gain Plot

The frequency response is flat from DC to 100 KHz at gains of 1, 10, and 100. At a gain of 1000 the gain may be as much as 15% high before rolling off when reaching its maximum bandwidth of about 900 KHz.



Specifications	MIN	TYP	MAX	UNITS
Input Voltage	-10		10	V
Input Impedance		1M Ω 20 pF		
CMRR < 10 KHz	100			dB
CMRR 100 KHz	75			dB
Bandwidth (see chart)		0.9		Mhz
RMS Noise at 1 MHz cutoff			5	nv/ $\sqrt{\text{Hz}}$
Gain Accuracy 0 – 100 KHz, Gain < 1000 (see chart)		± 2		%
Output Drive into 50 Ω (power supply dependent)	-5		5	V
Output Drive into 1 M Ω	-10		10	V