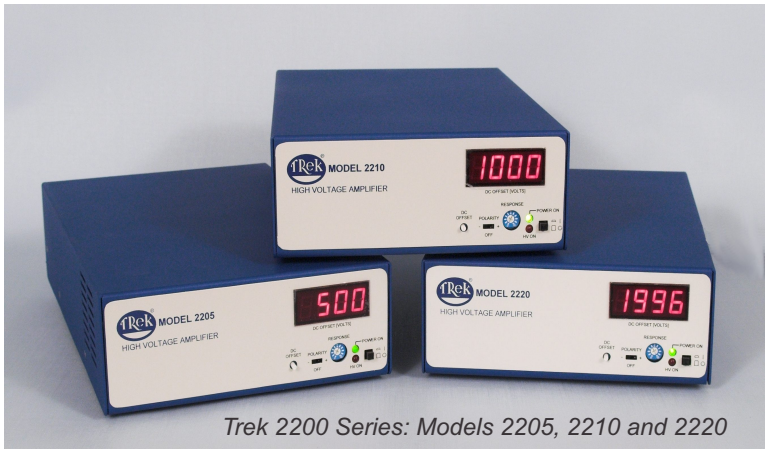
Model 2200 Series

High-Voltage 40 Watt Amplifiers Deliver Cost-Effective High-Performance in Piezo, MEMS & Other Applications

The first three models in Trek's 40 watt high-voltage amplifier series – Models 2205, 2210, and 2220 – offer a winning combination of high performance, exceptional reliability, and other value-added features at an attractive price.

The 2200 Series addresses the market need for cost-effective high-voltage amplifiers which deliver reliable, robust performance in piezoelectric, electro-optic, MEMS and many other applications.

Industries that will benefit from the advancements enabled by these high-voltage amplifiers are diverse and include aerospace, biotechnology, defense, military, power, R&D, semiconductors, and electronics.



Trek 2200 Series: Models 2205, 2210 and 2220

Performance Specifications Include*:

- Output Voltage Ranges:
  ±500 V, ±1 kV, ±2 kV
- Output Current Ranges:
  ±80 mA, ±40 mA, ±20 mA peak AC
- Large Signal Bandwidth:
  75 kHz, 40 kHz, 7.5 kHz

Added-Value Features Include:

- 2-year Warranty
- CE Marked
- RoHS Compliant
- HALT Tested

** See page 2 for specifications per model*

As with all Trek amplifiers, the 2200 Series provides:

- DC stability
- Wide bandwidth
- Well-regulated and controlled AC output signals
- Full four-quadrant, class AB, all-solid-state output stages

The four-quadrant, active output stage sinks or sources current into reactive or resistive loads throughout the output voltage range. This is essential for achieving the accurate output response and high slew rates demanded by reactive loads.

In addition, the models in the 2200 Series provide:

- DC offset adjustment with front panel metering
- A unique auto-recovery shutdown feature for protection from overpowering the output

Model **2200 Series** Specifications

All specifications are with no load unless otherwise noted.

PARAMETER:		Model 2205	Model 2210	Model 2220
Output Voltage Range		0 to ±500V	0 to ±1 kV	0 to ±2 kV
Output Current Range		0 to ±40 mA DC 0 to ±80 mA peak AC (for 5 ms minimum)	0 to ±20 mA DC 0 to ±40 mA peak AC (for 5 ms minimum)	0 to ±10 mA DC. 0 to ±20 mA peak AC (for 5 ms minimum)
Input Voltage Range		0 to ±10 V DC or peak AC	0 to ±10 V DC or peak AC	0 to ±10 V DC or peak AC
DC Voltage Gain (Accuracy)		50 V/V (Better than 0.5% of full scale)	100 V/V (Better than 0.5% of full scale)	200 V/V (Better than 0.5% of full scale)
Output Noise		Less than 25 mV rms.	Less than 30 mV rms.	Less than 50 mV rms.
Slew Rate (10% to 90%, typical)		Greater than 150 V/µs	Greater than 150 V/µs	Greater than 100 V/µs
Large Signal Bandwidth (-3dB)*		DC to 75 kHz	DC to 40 kHz	DC to 7.5 kHz (minimum trip off frequency)
Small Signal Bandwidth (-3dB)		DC to 100 kHz	DC to 100 kHz	DC to 50 kHz
Stability	Drift with Time	Less than 300 ppm/hr, noncumulative	Less than 300 ppm/hr, noncumulative	Less than 300 ppm/hr, noncumulative
	Drift with Temp.	Less than 180 ppm/°C	Less than 180 ppm/°C	Less than 180 ppm/°C
Voltage Monitor	Scale Factor	1/50th of the high-voltage output	1/100th of the high-voltage output	1/200th of the high-voltage output
	DC Accuracy	Better than 0.5% of full scale	Better than 0.5% of full scale	Better than 0.5% of full scale
Current Monitor	Scale Factor	0.1 V/mA	0.2 V/mA	0.4 V/mA
	DC Accuracy	Better than 2% of full scale	Better than 2% of full scale	Better than 2% of full scale

*Large Signal Bandwidth, Square Wave Response and Output Noise are optimized using the “Response” adjustment on the front panel of the amplifier

Amplitude vs Frequency Graphs