



Announcement

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

TREK, INC., a designer and manufacturer of high voltage amplifiers, power supplies and electrostatic measurement instrumentation announces the release of its new 2200 Series High Voltage Amplifiers.

The first three models in this new 40 watt high-voltage amplifiers 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 HV 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 new 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, ± 1000 V, ± 2000 V
- 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

As with all Trek amplifiers, these new High Voltage Amplifiers offer:

- 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 also include:

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

Commenting on this new series, Michael Dehn, President of TREK, INC. said:

“This unique combination of high performance, reliability and price will enable us to make a difference in our customers' research and product development projects. As piezoelectric technology advances, and applications cycle from the lab to the real world, Trek will continue to contribute to the success of those applications through our ongoing innovations in amplifier technology and design.”

TREK, INC. (est. 1968) designs, manufactures and sells high performance electrostatic measurement instruments, sensors & monitors, and high voltage amplifiers, power supplies & generators. Trek's products are used by OEMs involved in semiconductor manufacturing and electrophotography; in applications sensitive to electrostatic discharge (ESD); and by companies and universities involved in a wide variety of research applications, including electrostatics, electrophotography, piezoelectrics, electrohydrodynamics, and plasma chemistry. Customers include numerous Fortune 500 companies and leading universities. For more information call USA 585-798-3140 or email sales@trekinc.com.

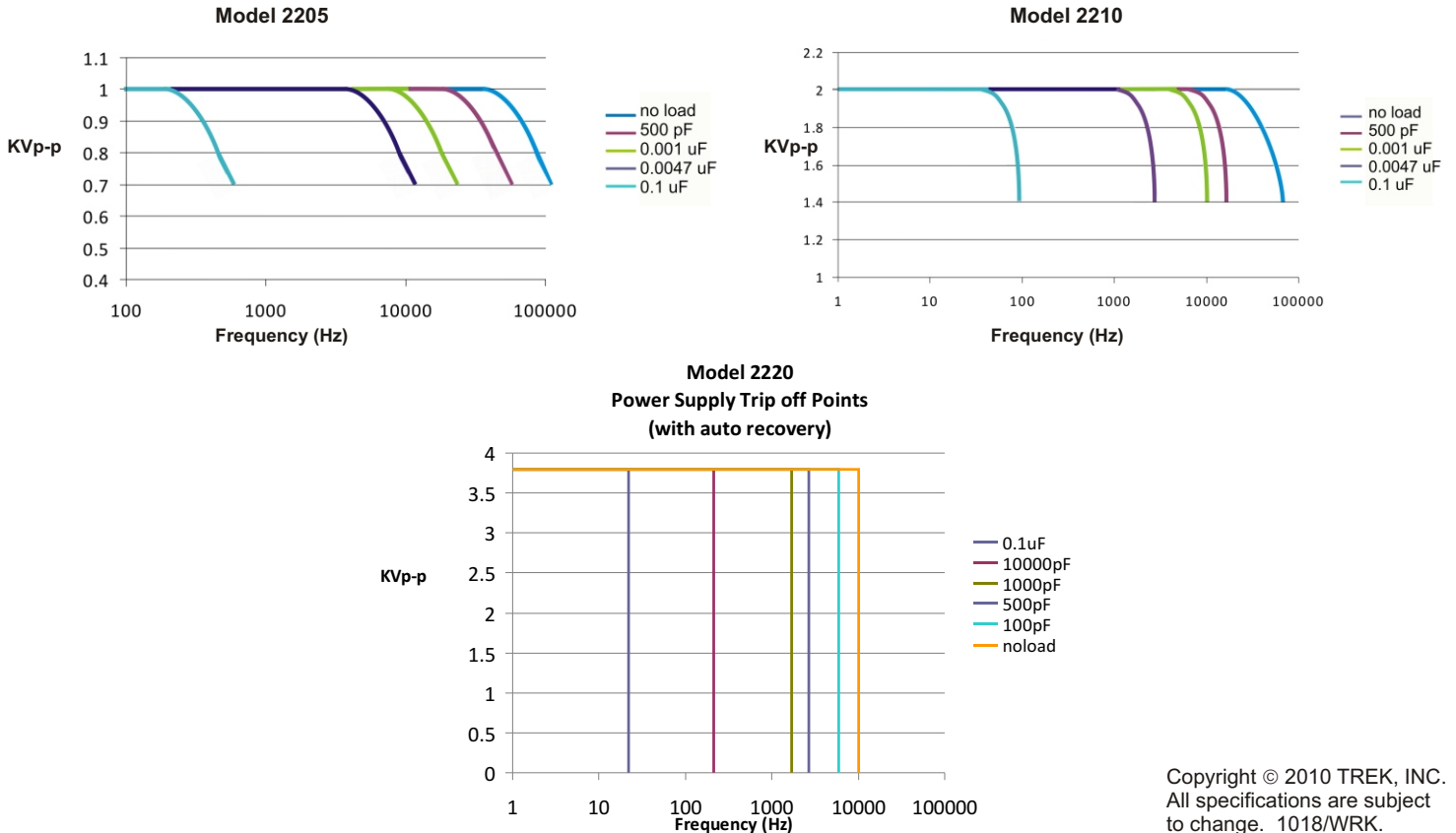
Model 2200 Series Specifications

All specifications are with no load unless otherwise noted.

| PARAMETER: | | Model 2205 | Model 2210 | Model 2220 |
|--|-------------------------|---|---|--|
| Output Voltage Range | | 0 to ±500V | 0 to ±1000V | 0 to ±2000V |
| 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



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