

Model 2100HF

High Frequency Amplifier

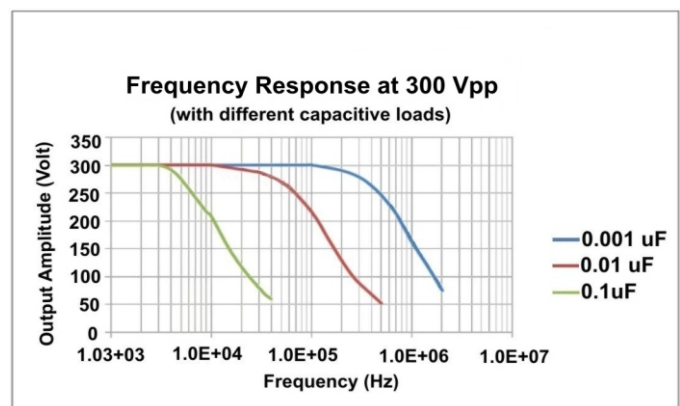
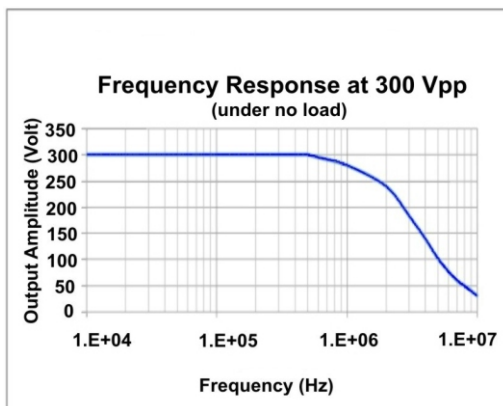


- **Output Voltage**
Range: 0 to ± 150 V
DC or peak AC
- **Output Current:**
0 to ± 300 mA
- **Slew Rate:**
2 kV/ μ s, typical
- **Large Signal**
Bandwidth (-3 dB):
DC to greater than
2.6 MHz
- **Small Signal**
Bandwidth (-3 dB):
3 MHz
- **Delay Time:**
Less than 150 ns
(input to output)
- **High Speed**
Applications

The Trek Model 2100 HF is a high-frequency, high speed, wide bandwidth amplifier for high power applications and provides precise control of output voltages in the range of 0 to ± 150 V DC or peak AC with an output current range of 0 to ± 300 mA.

The Model 2100 HF incorporates an all-solid-state design for highly reliable low-noise operation, thus achieving accurate output response and high slew rates, even in highly capacitive loads. Full power frequency response of the amplifier is essentially flat up to 2 MHz. No overshoot or instability of the waveform occurs due to the amplifier's unique dual feedback feature.

Industrial applications include the use with MEMS devices, electro-optic modulators, ion beam control, ultrasonics, dielectric material characterization, piezoelectric driving and control.



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Model 2100HF Specifications

All specifications are with no load unless otherwise noted.

Output

Output Voltage Range
0 to ± 150 V DC or peak AC.

Output Current
0 to ± 300 mA

Amplifier Input

Input Voltage Range
0 to ± 3 V DC or peak AC.

Input Impedance
50 Ω , nominal.

Performance

DC Voltage Gain
50 V/V.

Performance (cont.)

Offset Voltage
Less than ± 100 mV.

Output Noise
Less than 50 mV p-p.

Slew Rate (10% to 90%, typical)
Greater than 2000 V/ μ s.

Large Signal Bandwidth (-3dB)
DC to greater than 2.6 MHz.

Small Signal Bandwidth (-3dB)
DC to greater than 3 MHz.

Delay Time
Less than 150 ns (input to output).

Drift with Time
Less than 6 mV/minute, non-cumulative.

General

Dimensions
141 mm H x 213 mm W x 336 mm D
(5.57" H x 8.38" W x 13.22" D).

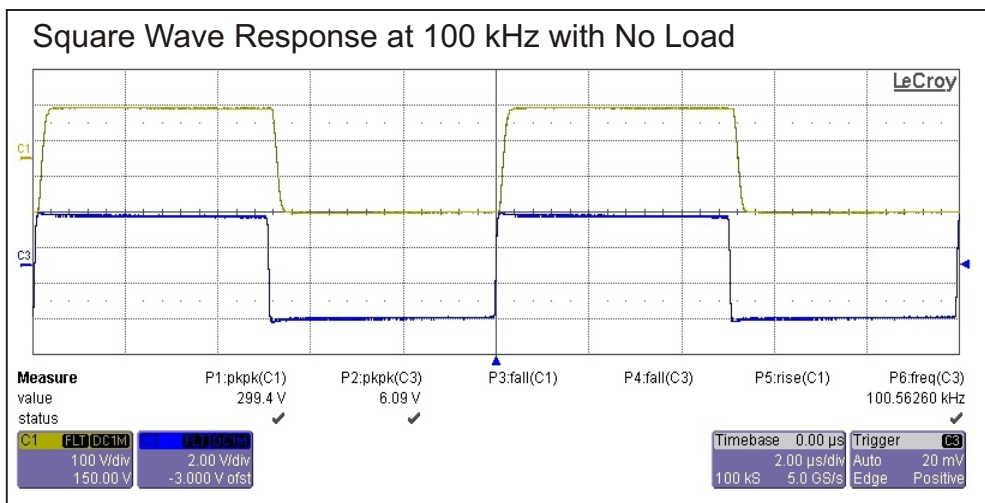
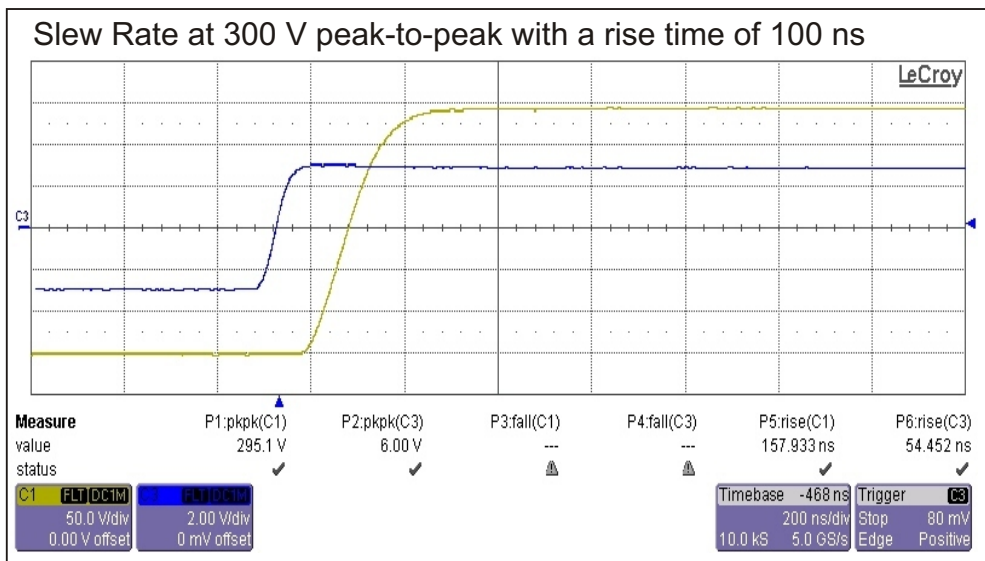
Weight
6.8 kg (15 lb).

High-Voltage Output Connector
BNC connector.

Amplifier Input
BNC connector

AC Line Receptacle
Standard three-prong AC line connector.

Power Requirements
Line Voltage
90 to 127 V AC, at 48 to 63 Hz or
180 to 250 V AC, at 48 to 63 Hz
(specify when ordering).



The Model 2100HF incorporates an all-solid-state design for high reliability and low-noise operation, thus achieving accurate output response and high slew rates, even into highly capacitive loads.

The output stage is fully protected against overvoltage and overcurrent conditions that may be generated by active loads or overloads.

TREK, INC. certifies that each Model 2100HF is tested and calibrated to specifications using measurement equipment traceable to the National Institute of Standards and Technology or traceable to consensus standards.

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1152 /DEC
All specifications are subject to change.



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