

Specifications

Sonoma Instrument® 315 Broadband Amplifier

| | | |
|------------------------------------|---|--|
| Bandwidth | 10 kHz - 1 GHz | - 3 dB |
| Gain | 51 ± 1.5 dB 355 V / V | at 100 MHz inverting, 50 Ω load |
| Gain Flatness | ± 0.5 dB max. | 500 kHz - 800 MHz |
| Noise Figure | 1.8 dB typ. 2.5 dB max. 2.5 dB typ. | 10 - 500 MHz 10 - 500 MHz at 1 GHz |
| Equivalent Input Noise Voltage * | 0.55 nV / √ Hz 0.59 nV / √ Hz | 10 - 500 MHz * Incl. 0.45 nV / √ Hz at 1 GHz from a 50 Ω source |
| Output at 1dB Gain Compression | +15 dBm | 3.5 Vp-p, 100 kHz - 1 GHz |
| Maximum Input for Linear Operation | -36 dBm | approx. ± 5 mV |
| Harmonic Distortion | - 55 dB typ. | 0 dBm output, 200 MHz |
| Third Order Intercept Point | + 28 dBm typ. | at 300 MHz |
| Impedance | 50 Ω | a.c. coupled |
| Input Return Loss | 7 dB | 300 kHz - 1 GHz |
| Output Return Loss | 7 dB | 300 kHz - 1 GHz |
| Reverse Isolation | 50 dB | 20 kHz - 1 GHz |
| Transition Time | 350 psec | |
| Group Delay Variation | 200 psec | 10 MHz - 1 GHz |

Input Damage Level: -36 dBm
± 5 mV

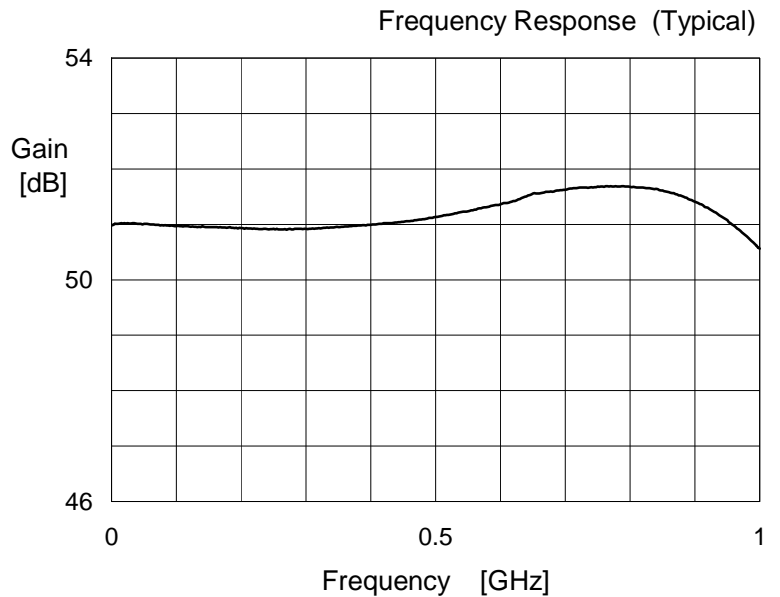
Connectors: Type N (f)

Temperature Range:
Operating: 0 to + 50 °C
Storage: - 25 to + 75 °C

Power Requirements:
100, 120, 220, or 240V a.c.
50 - 60 Hz, 20 VA

Size: 3.6 × 4.3 × 7.2" (H × W × D)
91 × 109 × 183 mm

Net Weight: 3.3 lb / 1.5 kg



DATA SUBJECT TO CHANGE

SONOMA INSTRUMENT

P.O. Box 9011, Santa Rosa, California 95405

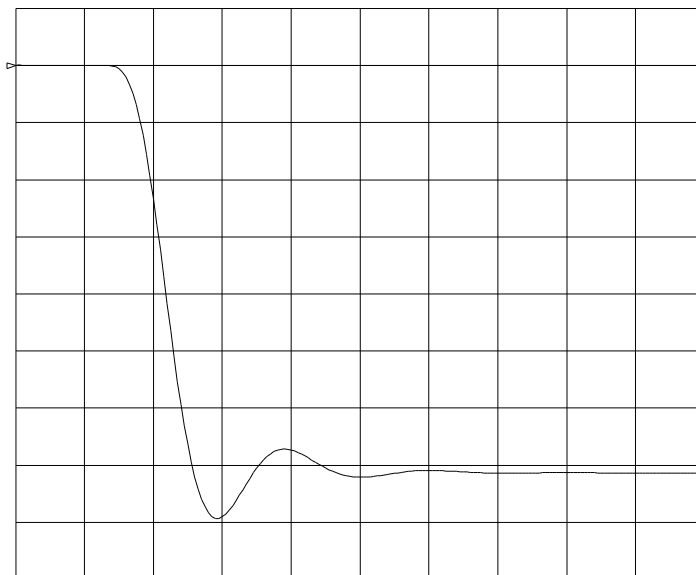
Tel. 707-542-8569

Fax. 707-542-1551

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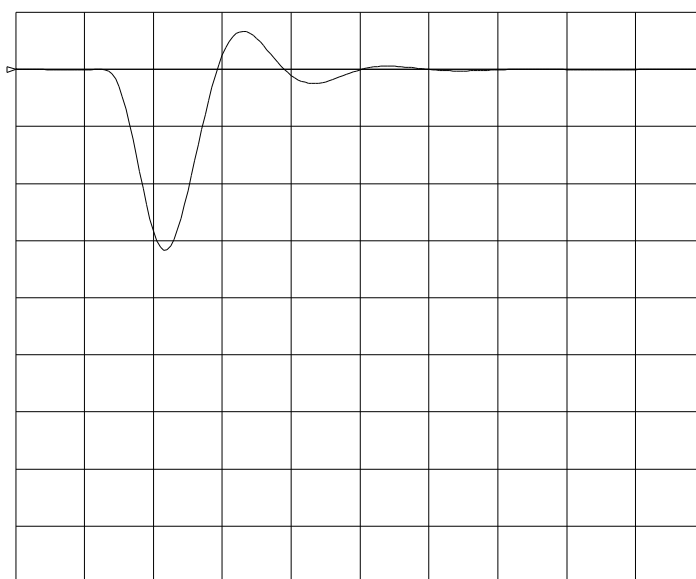
www.sonoma-instrument.com

315 Amplifier
Time Domain



Horizontal: 500 ps / div
Vertical: 50 units / div

Step Response



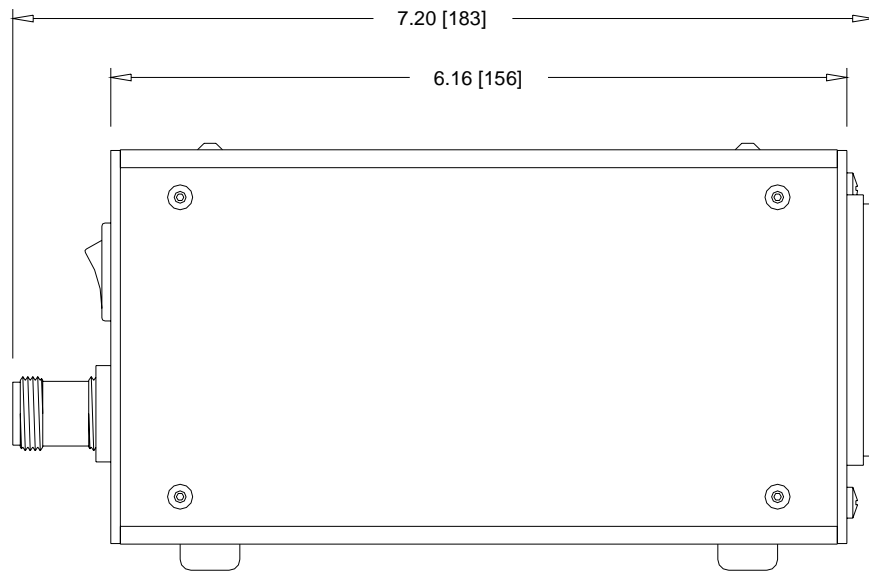
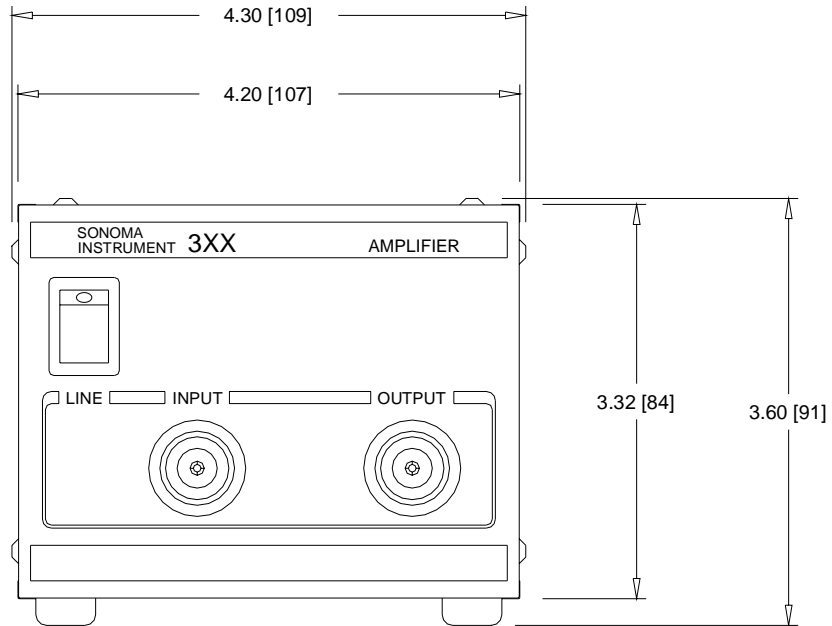
Horizontal: 500 ps / div
Vertical: 50 units / div

Pulse Response

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Outline Drawing

inch [mm]



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