NP Technologies, Inc.

NP-2511

Broadband Linear RF Amplifier

- **Frequency Response: 400-1000MHz**
- **Linear Power: 50 watt**
- **Saturated Power: 70 watts**
- **Gain: 48 dB**

3007

Description:

The NP-2511 is a class A 20 watt CW, rack mountable amplifier system designed to operate over the frequency range of 400 MHz to 1000 MHz with a gain of 48db. The NP-2511 operates from 95 to 255vac 47/63Hz, with RF input drive levels up to +2dBm. NP-2511 is a self contained unit consisting of the RF power amplifier, AC to DC power supply, back panel shut down "BNC" connector and cooling fans.

ELECTRICAL SPECIFICATION: Temp.=25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	400		1000	MHz
Power Output Saturated	P_{sat}		70		Watt
Power Output P-1dB	P_{-1dB}		50		Watt
Gain	G	45	48		dB
Small Signal Gain Flatness	ΔG		±0.5	±1	dB
Input VSWR	S11		1.45:1	1.55:1	-
Harmonics @ 50Watts Output	H		-40	-28	dBc
Inter-modulation Point 2 Tones, 10W per tone @ 959 & 960MHz	IP_3		+55		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vac	95		255	Volt
Operating Current @ 100-120Vac	Amps		4.4		Amp
Enable / Disable (shut down pin: gnd=off, open=on)	ms	Typical: 1ms OFF, 10ms ON.			ms

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimensions	19 x 3.5 x 18.125	Max	Inch
RF Connectors IN/OUT	N	-	-
DC Connectors	N/A	-	-
Cooling	Heat-sink & Fans	-	-
Weight	20	Typ	lb

PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 70°C with self reset.	Typ
Input Overdrive	Fold-back overdrive protection to 20 dBm.	Max
Load VSWR	4.0: up to 50 Watts	Max
Reverse Polarity Protection	N/A	-

ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Units
Operating Case Temperature	Tc	0°C		+50°C	°C
Storage Temperature	Tstg	-30°C		+100°C	°C
Relative humidity non-condensation	RH	95			%

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Email: sales@nptrf.com

Phone: (805) 376-9299
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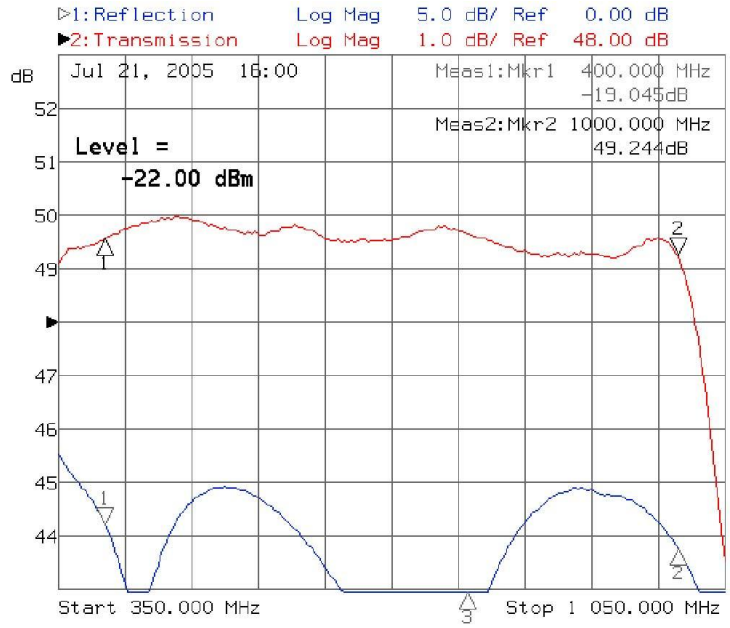
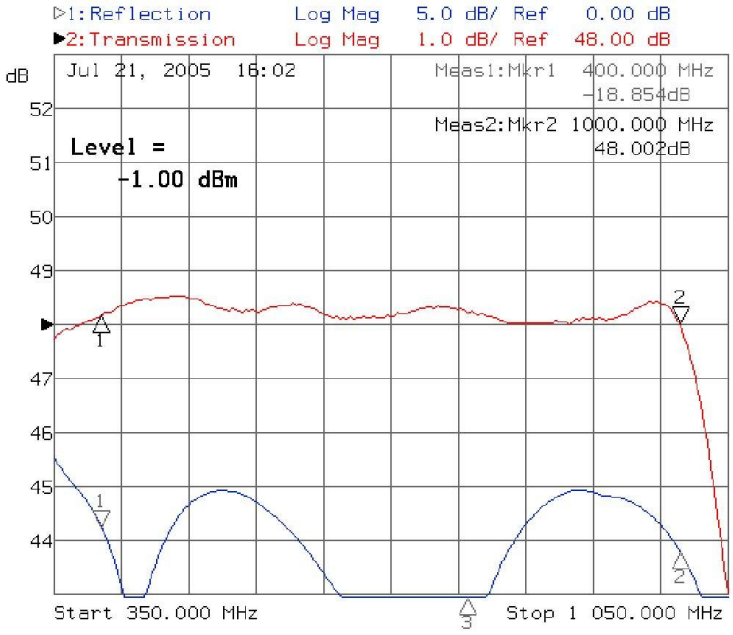
Response Curve



Small Signal Frequency Response.



Frequency Response Curve @ 50 Watt Output.

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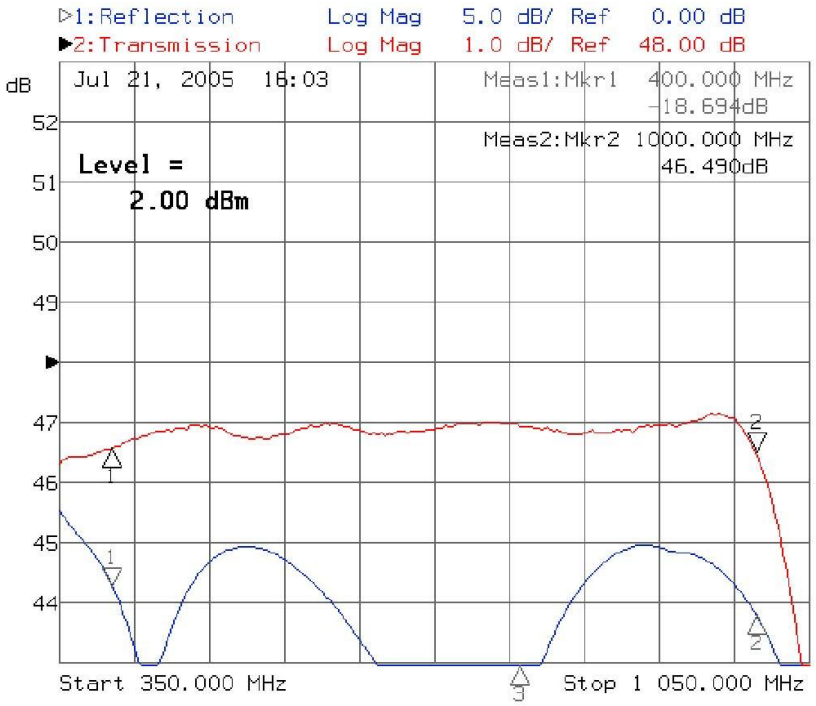
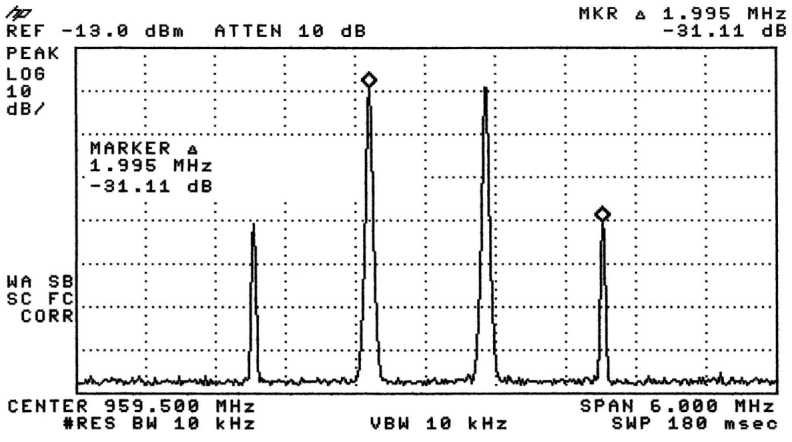


Frequency Response Curve @ 70 Watts Output.



Two Tones 10 Watts Avg. Per Tone @ 959 & 960MHz
IP3 = +55dBm

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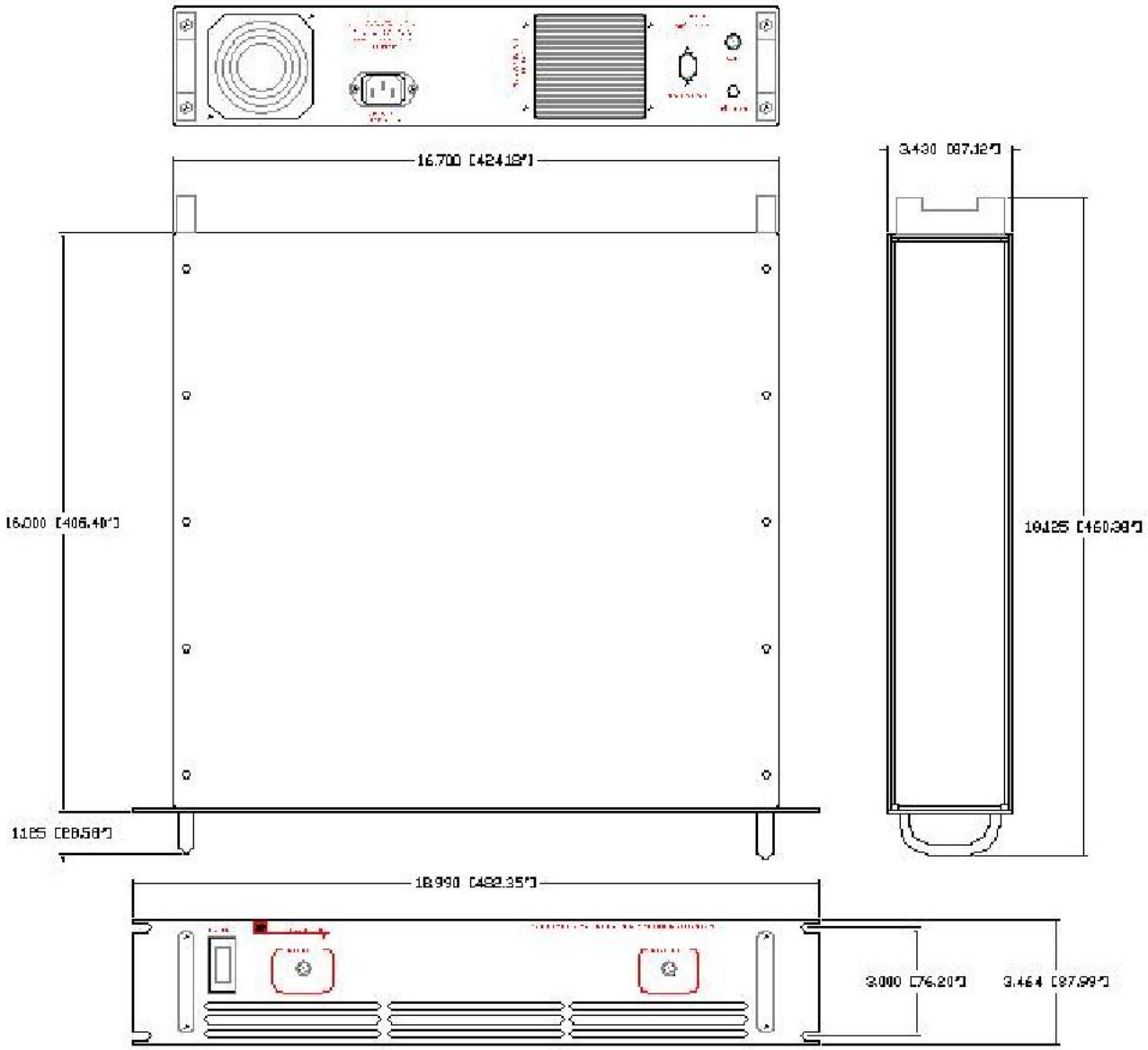
Outline Drawing



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