NP Technologies, Inc.

NP-2547

Class "A" Linear RF Amplifier

- **Frequency Response: 20-520 MHz**
- **Usable Frequency Response 15-530 MHz**
- **Linear Power: 40 watts**
- **Saturated Power: 60 watts**
- **Gain: 45 dB**

Description:

The NP-2547 is a 60 watt CW, rack mountable amplifier system designed to operate over the frequency range of 15 MHz to 530 MHz with a gain of 45dB. The NP-2547 operates from 95 to 255vac 47/63Hz, with RF input drive levels up to +3dBm. The NP-2500 is a self contained units consisting of the RF amplifier, AC to DC power supply, back panel shut down BNC connector and cooling fans.

ELECTRICAL SPECIFICATION @ VDD= +28VDC: Temp.=25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	20		520	MHz
Power Output Saturated	P_{sat}	60			Watt
Power Output P-1dB	P_{-1dB}		40		Watt
Gain	G	43	45		dB
Small Signal Gain Flatness	ΔG		±1	±1.3	dB
Input VSWR	S11		1.3:1	1.6:1	-
Harmonics @ 40 Watts, 2^{nd}/3rd	H			-20/-30	dBc
Inter-modulation Point 2 Tones, 2W per tone @ 400 & 401 MHz	IP_3		+54		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current @ 40 Watts / 60 Watts	Amps		7.5/8.6	10	Amp
Enable / Disable (shut down pin: gnd=off, open=on)	ms	Typical: 1ms OFF, 10ms ON.			ms

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimensions	19x 3.5 x 18.128	Max	Inch
RF Connectors IN/OUT	N	-	-
DC Connectors	N/A	-	-
Cooling	3.25" Fan and Heat-sink.	-	-
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	Infinite up to 20 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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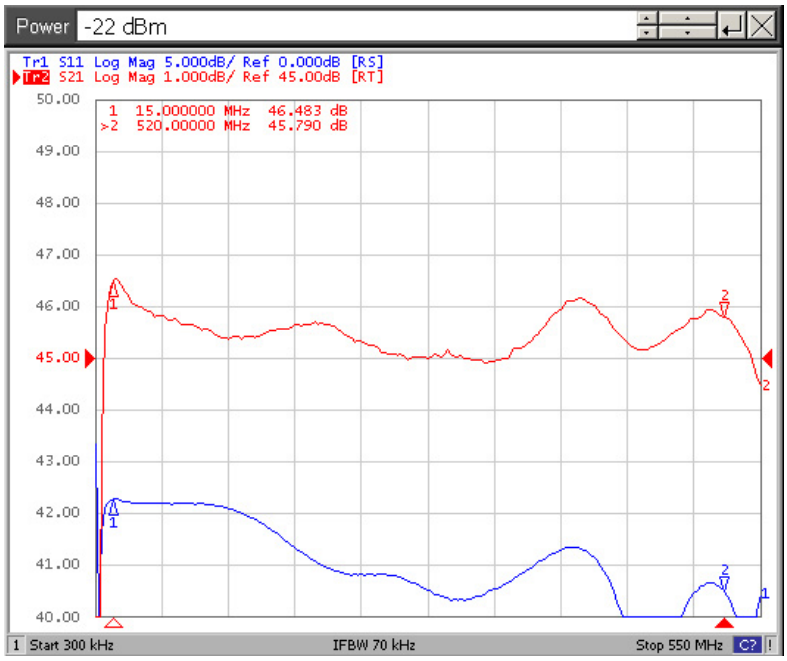
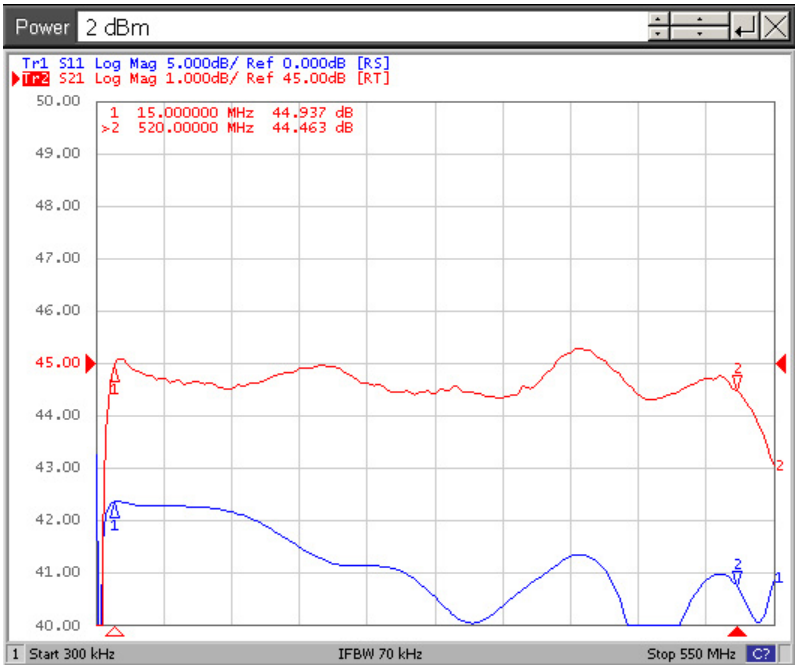
Email: sales@nptrf.com

Phone: (805) 376-9299
Fax: (805) 376-9288

Response Curves



Small Signal Frequency Response Curve



Frequency Response Curve @ 40 Watts Output

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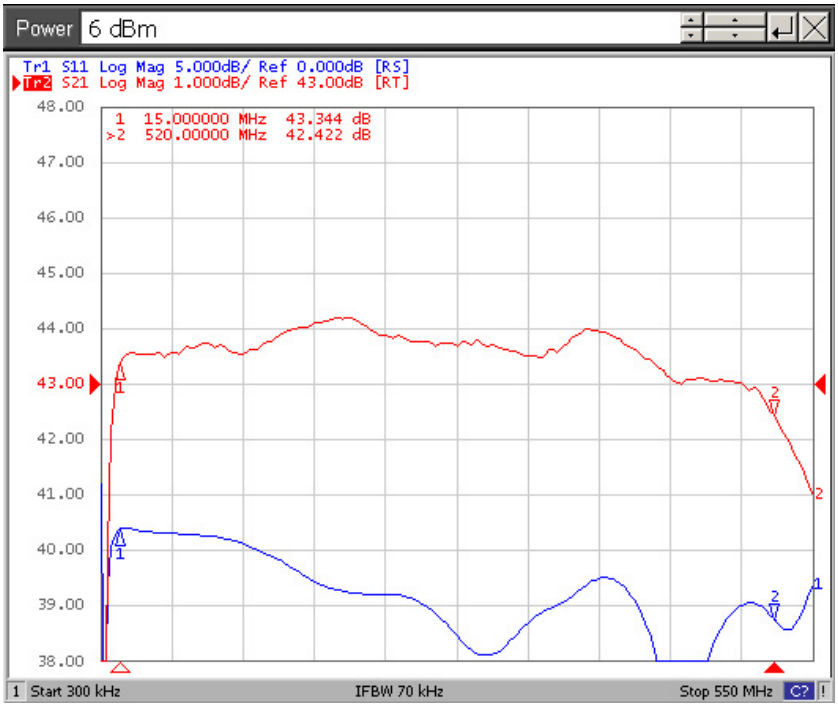
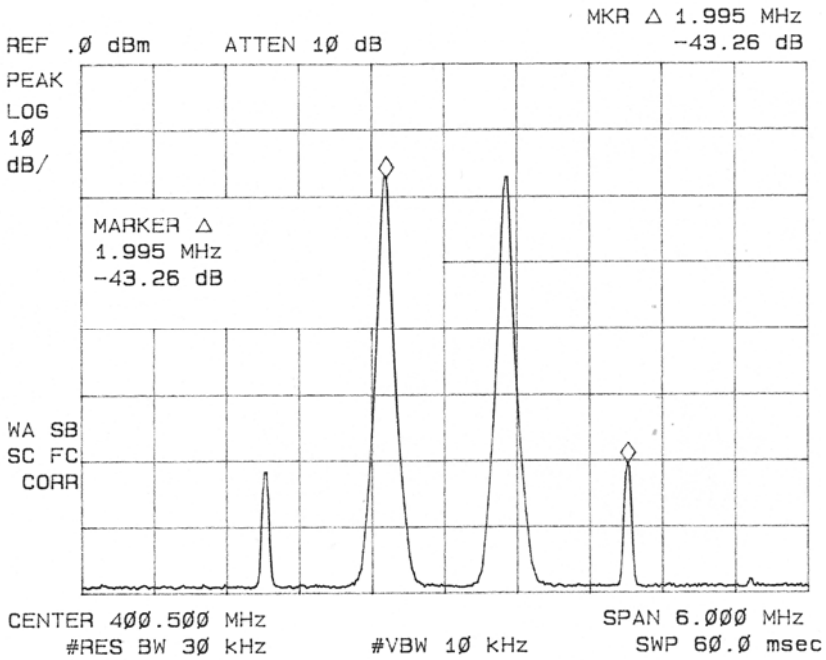


Frequency Response Curve @ 60 Watts Output



Two Tones 2 Watts Avg. Per Tone @ 400 & 401MHz
IP3 = +54dBm

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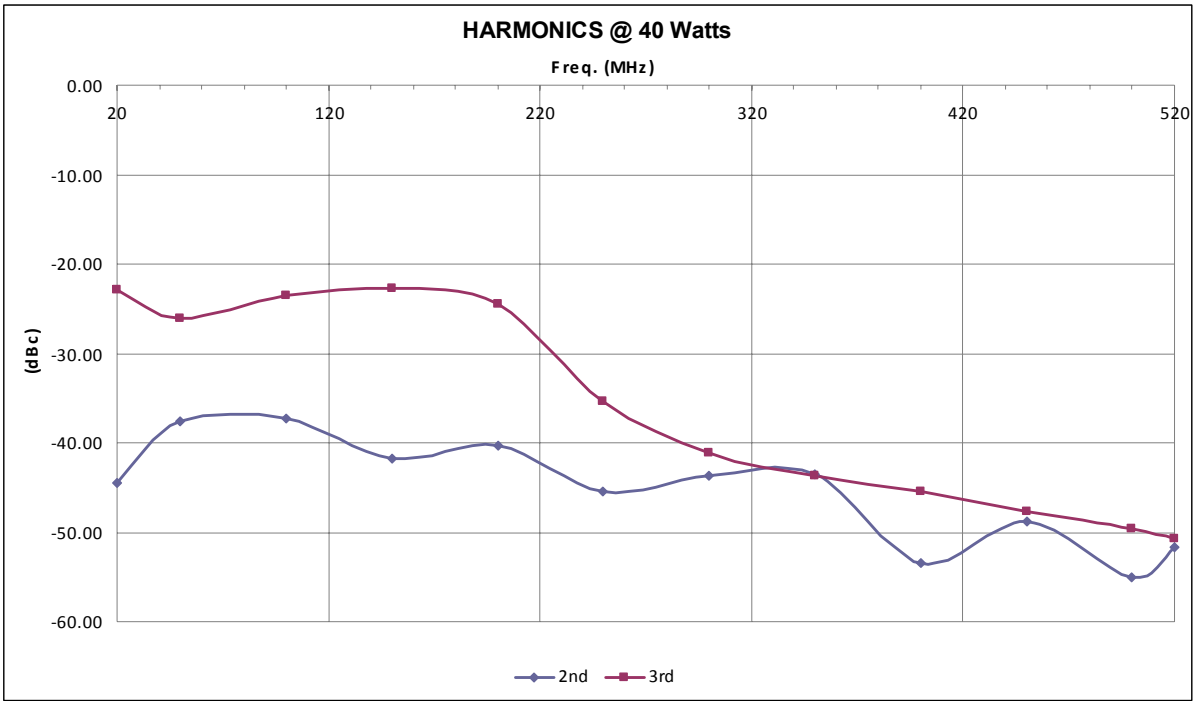

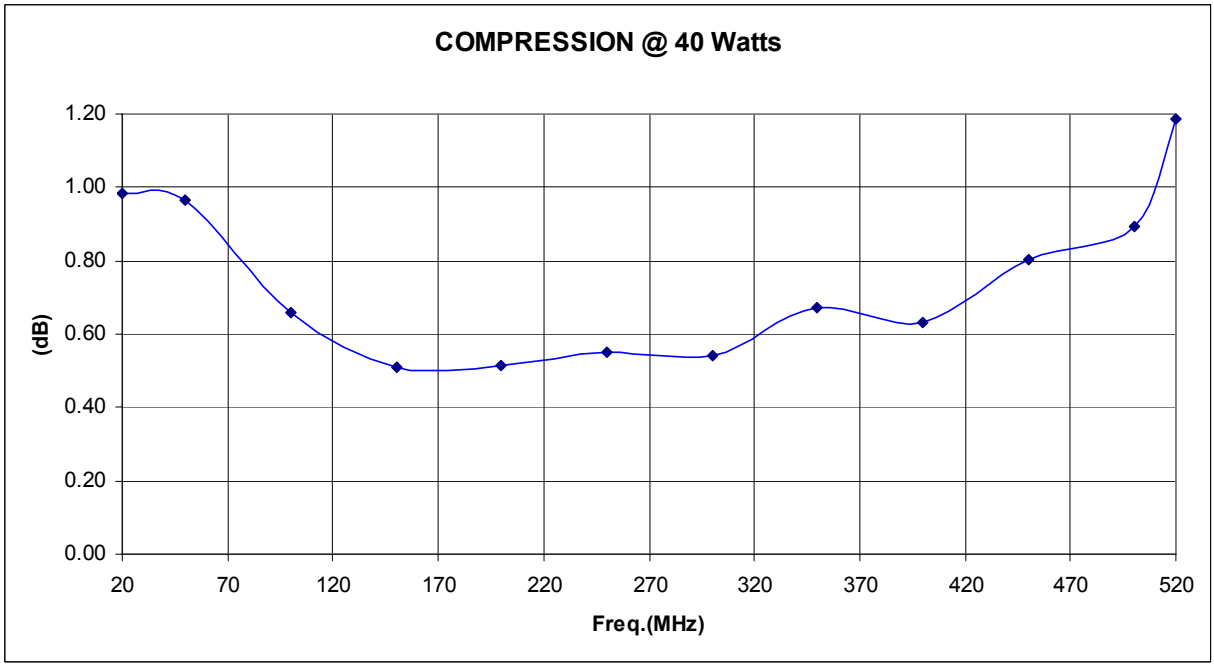

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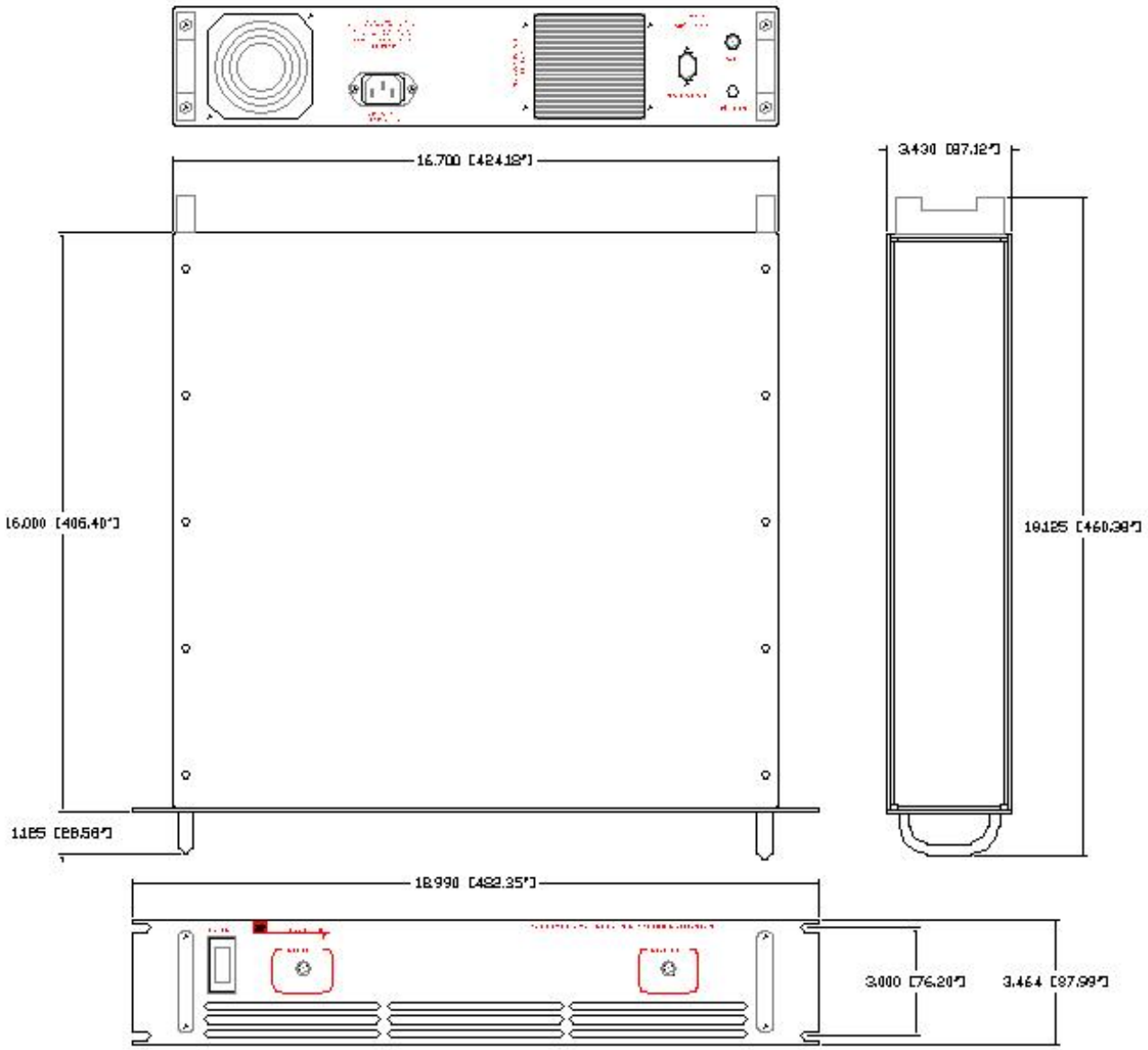
Outline Drawing



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