NP Technologies, Inc.

NP-2518

Linear RF Amplifier

- **Frequency Response: 500-1000 MHz**
- **Linear Power: 100 watts**
- **Saturated Power: 150 watts**
- **Gain: 58 dB**

Description:
Designed for linear application in the 500 to 1000 MHz range. This amplifier utilizes RF Power MOSFET devices that provide high gain, wide dynamic range and an excellent 3rd order intercept point. Suggested applications: multi-carrier, pulse, AM & FM modulation.

Updated:0609

ELECTRICAL SPECIFICATION @ VDD= 115VAC: Temp.=25°C, 50Ω System

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	500		1000	MHz
Power Output Saturated	P_{sat}		150		Watt
Power Output P-1dB	P_{-1dB}		100		Watt
Gain	G	54	58		dB
Small Signal Gain Flatness	ΔG		±1	±1.5	dB
Input VSWR	S11		1.4:1	1.7:1	-
Harmonics @ 100watts	H		-45		dBc
Inter-modulation Point 2 Tones, 10W per tone @ 900 & 901MHz	IP_3		58		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	100	115	240	Volt
Operating Current @ 100watts	Amps			11	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 17" x 5.25"	Max	Inch
RF Connectors IN/OUT	N in, N out	-	-
Control Connector	BNC/15 pin D-sub	-	-
Cooling	Fan forced heat-sink	-	-
Weight	14	Typ	lb

PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 70°C with self reset.	Typ
Input Overdrive	+0dBm Max	Max
Load VSWR	4.0:1 up to 100 watts	Max
Reverse Polarity Protection	None	-

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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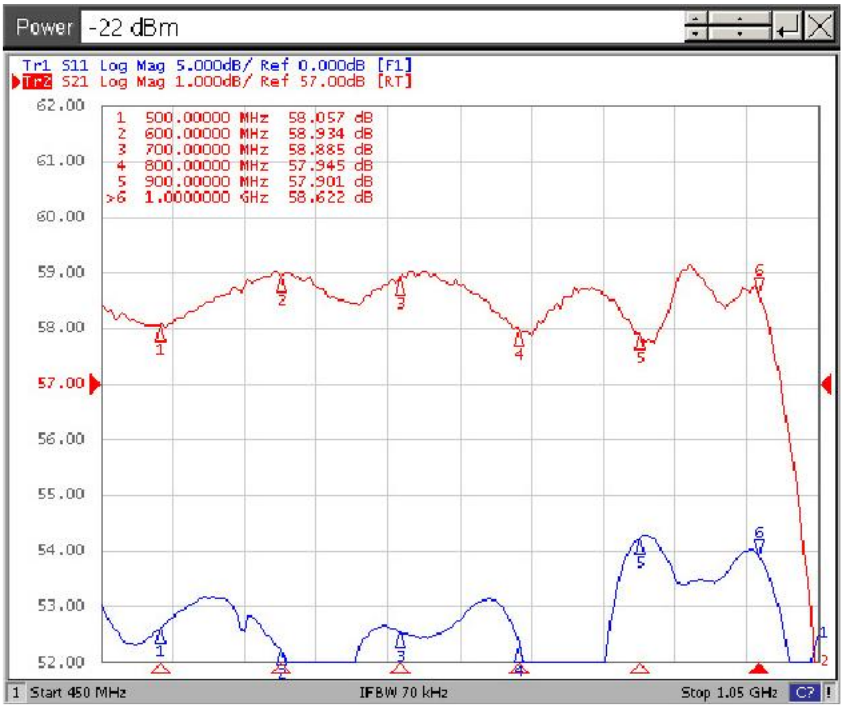
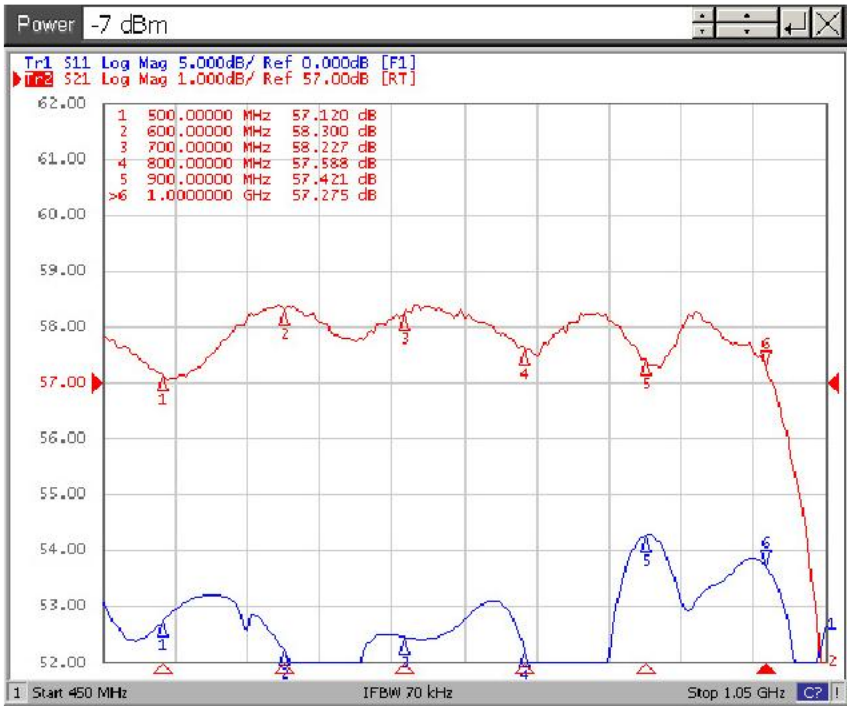
Response Curve



Small Signal Frequency Response Curve



Frequency Response Curve @ 100 Watt Output

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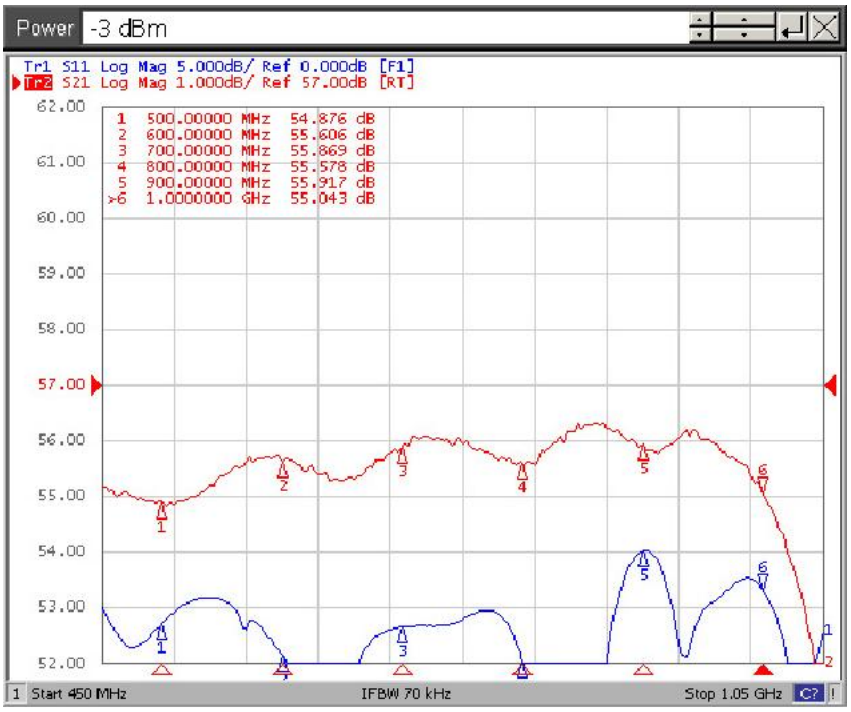
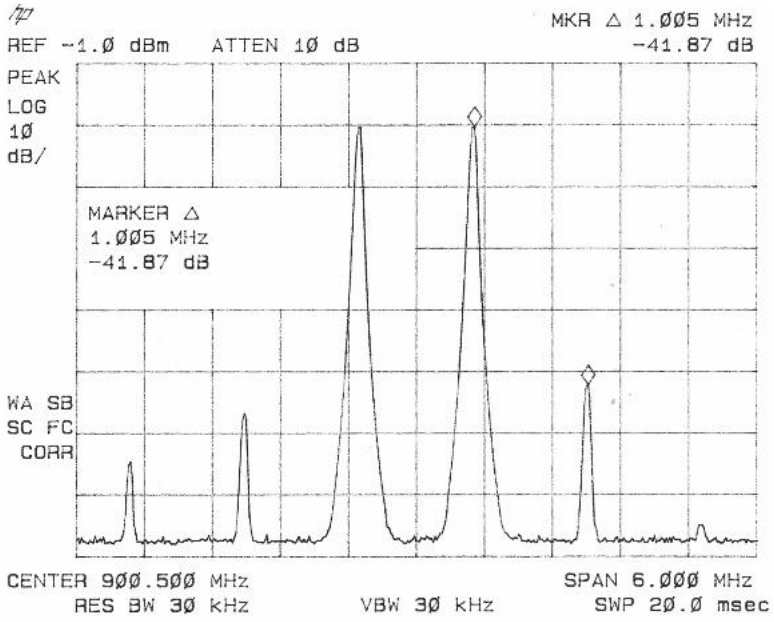


Frequency Response Curve @ 150 Watts Output



Two Tones 10 Watts Avg. Per Tone @ 900 & 901Mhz IP3 = 61dBm

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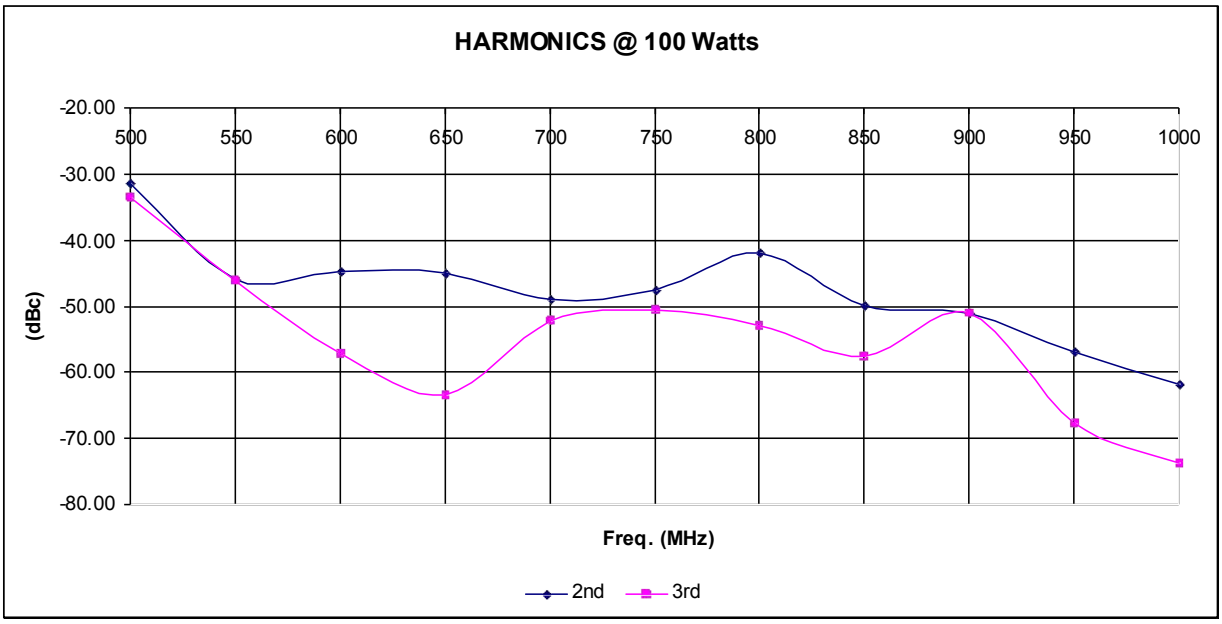

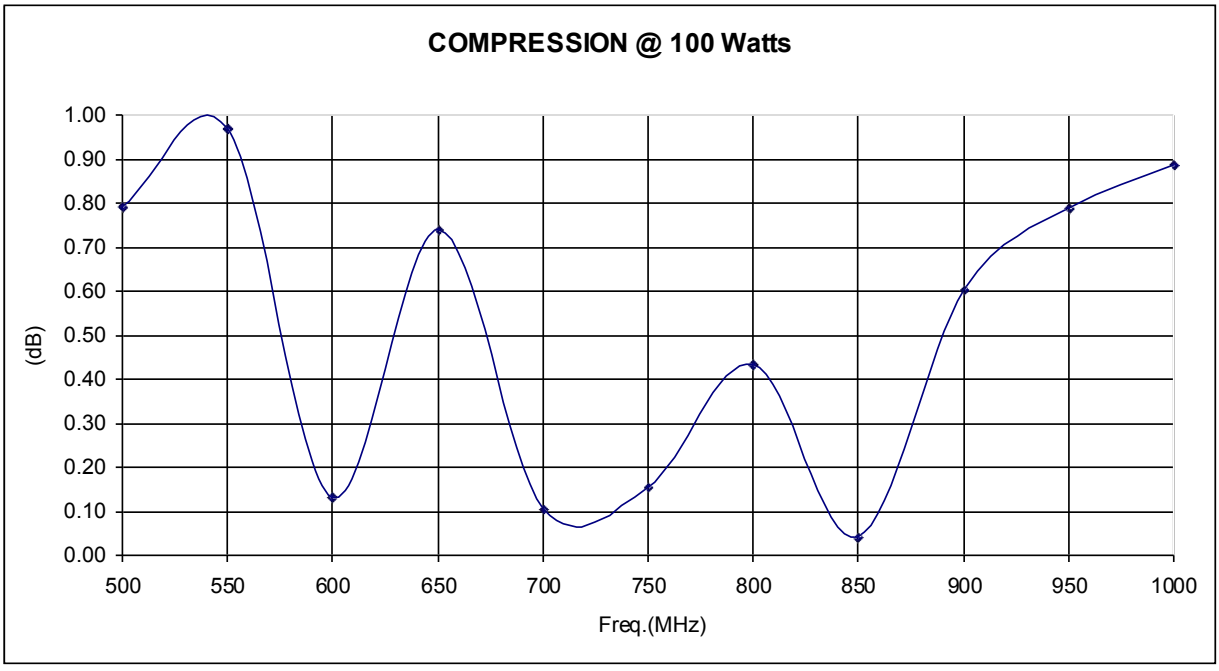

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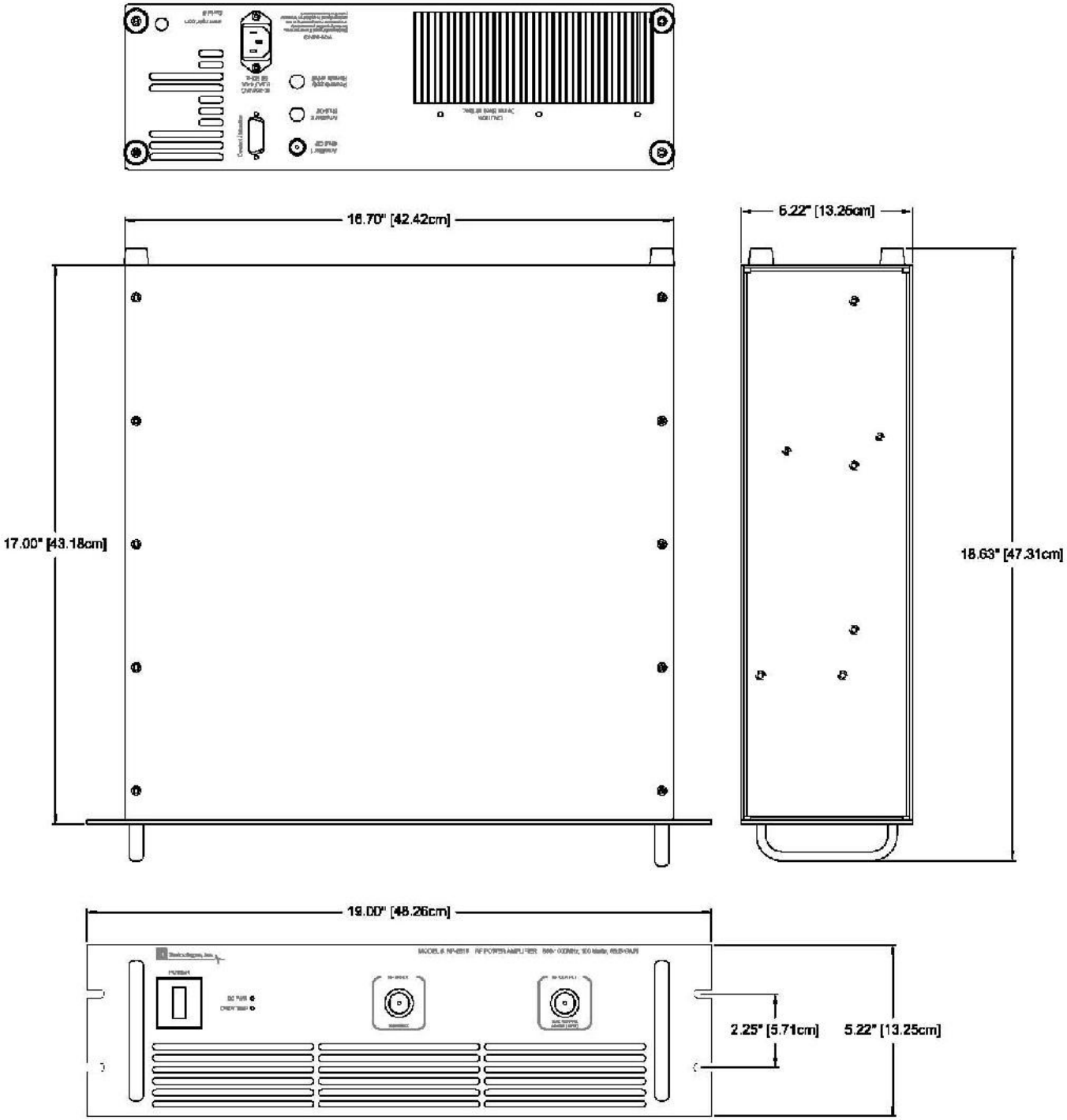
Outline Drawing



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