

## Linear RF Amplifier

- **Frequency Response: 3MHz-90MHz**
- **Useable Frequency Response: 1-100MHz**
- **Linear Power: 50 watts**
- **Saturated Power: 100 watts**
- **Gain: 45 dB**



### Description:

Designed for linear application in the 1MHz to 100MHz Range. The NP-2520 operates from 95 to 255vac 47/63Hz, with RF input drive levels up to +5dBm. The NP-2520 is a self contained units consisting of the RF amplifier, AC to DC power supply, back panel shut down BNC connector and cooling fans.

Updated: 0709

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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	3		90	MHz
Power Output Saturated	P <sub>sat</sub>		100		Watt
Power Output P-1dB	P <sub>-1dB</sub>		50		Watt
Gain	G	43	45		dB
Small Signal Gain Flatness	ΔG		±1.0		dB
Input VSWR	S11			1.3:1	-
Harmonics @ 50 Watts 2 <sup>nd</sup> / 3rd	H		-40 / -24	-35 / -20	dBc
Inter-modulation Point 2 Tones, 5W per tone @ 50 & 51 MHz	IP <sub>3</sub>		+57		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vac	95		255	Volt
Operating Current @ 100-120Vac	Amps		5		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

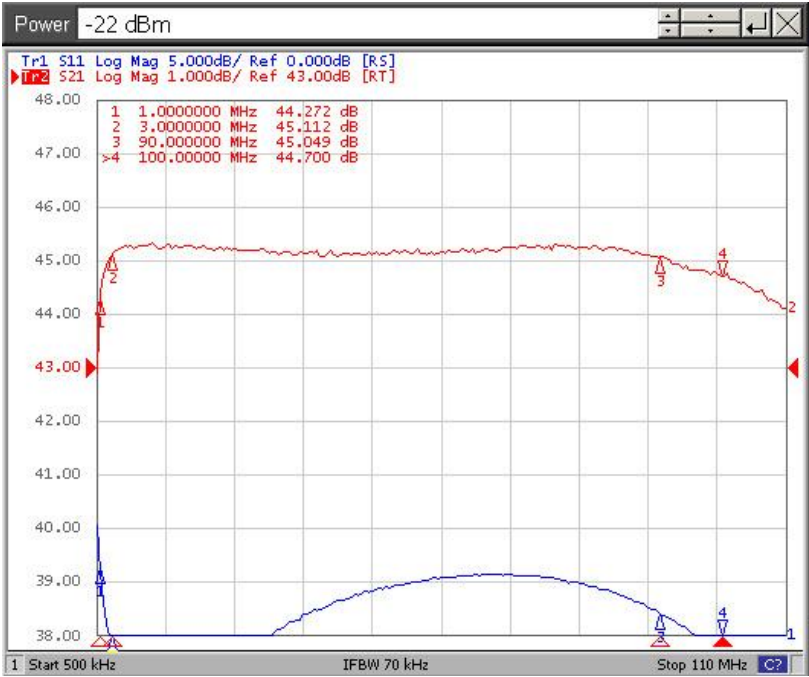
### PROTECTIONS

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	T <sub>c</sub>	0°C		50°C	°C
Storage Temperature	T <sub>stg</sub>	-30°C		+100°C	°C
Relative humidity non-condensation	RH	95			%

**Response Curve**

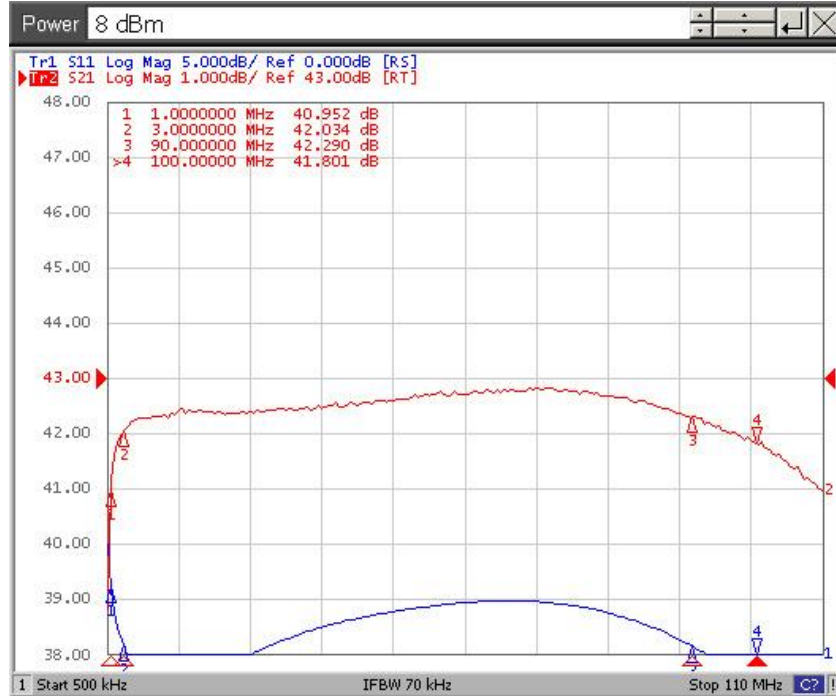


Small Signal Frequency Response Curve

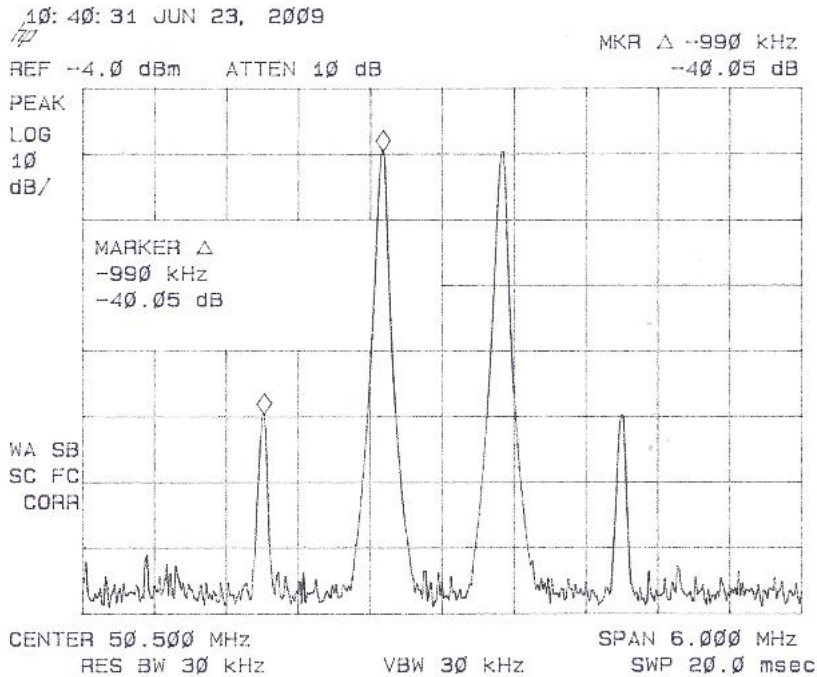


Frequency Response Curve @ 50 Watts Output

## Response Curves



Frequency Response Curve @ 100 Watts Output



Two Tones 5 Watts Avg. Per Tone @ 50 & 51Mhz IP3 = 57dBm

**Outline Drawing**

