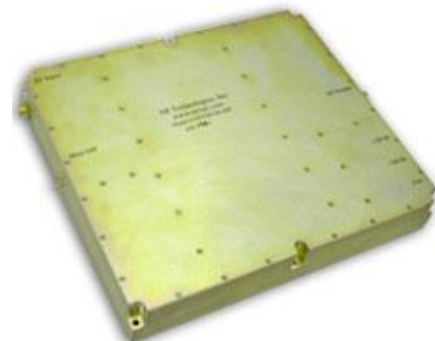


## Linear RF Amplifier

- Frequency Response: 500-1000 MHz
- Linear Power: 100 watt
- Saturated Power: 150 watts
- Gain: 50 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 3<sup>rd</sup> order intercept point. Suggested applications: multi-carrier, pulse, AM & FM modulation and military jammers.

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

0513

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	500		1000	MHz
Power Output Saturated	P <sub>sat</sub>		150		Watt
Power Output P-1dB	P <sub>-1dB</sub>	80	100		Watt
Gain	G	45	51		dB
Small Signal Gain Flatness	ΔG		±1	±1.5	dB
Input VSWR	S11		1.45:1	2.0:1	-
Harmonics	H		-30		dBc
Inter-modulation Point 2 Tones, 5W per tone @ 959 & 960MHz	IP <sub>3</sub>		+58		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current	Amps		16	20	Amp
Enable / Disable (shut down pin: gnd=off, open=on)	ms	Typical 1ms OFF, 10ms ON.			ms

### MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimensions	11.25 x 9.925 x 1.94	Max	Inch
RF Connectors IN/OUT	SMA in, N out	-	-
DC Connectors	Filtered feed-through	-	-
Cooling	Heat-sink not included	-	-
Weight	9.25	Max	lb

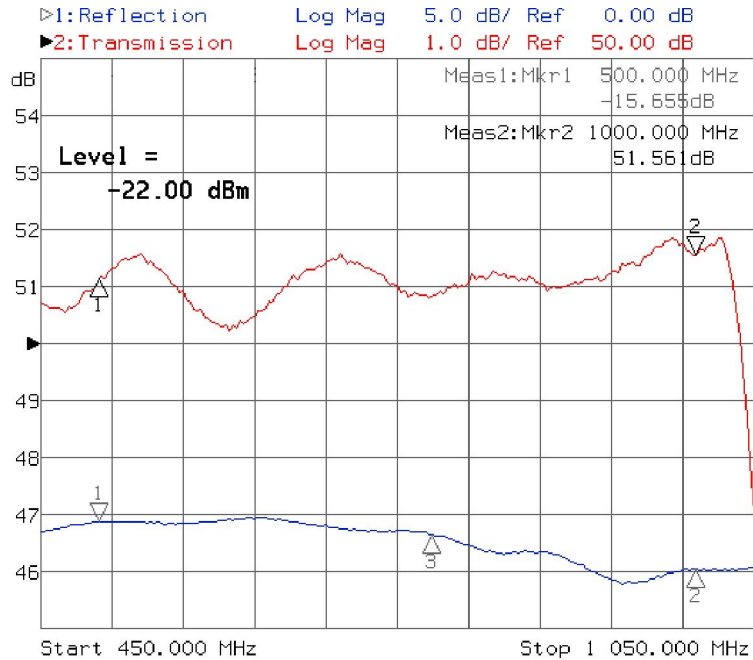
### PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 80°C with self reset.	Typ
Input Overdrive	+20dBm Max	Max
Load VSWR	4.0:1 up to 100 watts	Max
Reverse Polarity Protection	None	-

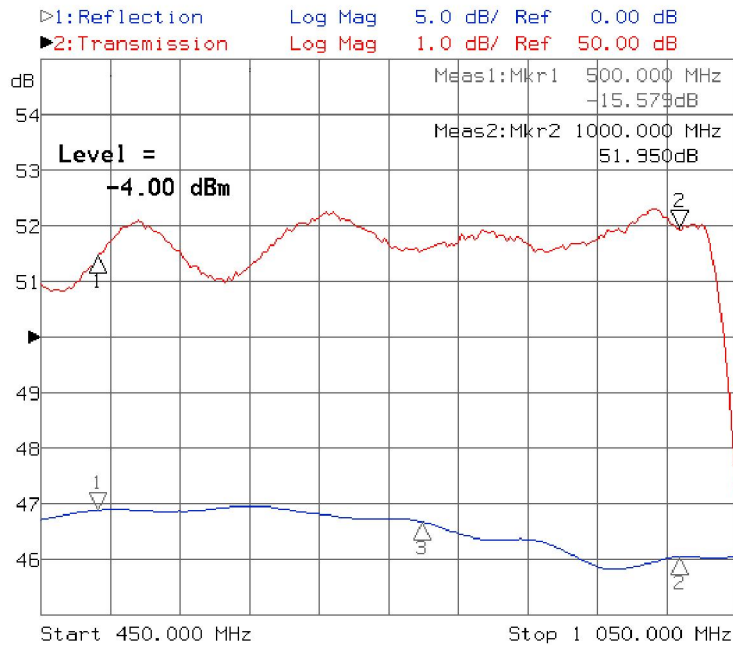
### ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Units
Operating Case Temperature	T <sub>c</sub>	0°C		+70°C	°C
Storage Temperature	T <sub>stg</sub>	-30°C		+100°C	°C
Relative humidity non-condensation	RH	95			%

## Response Curve

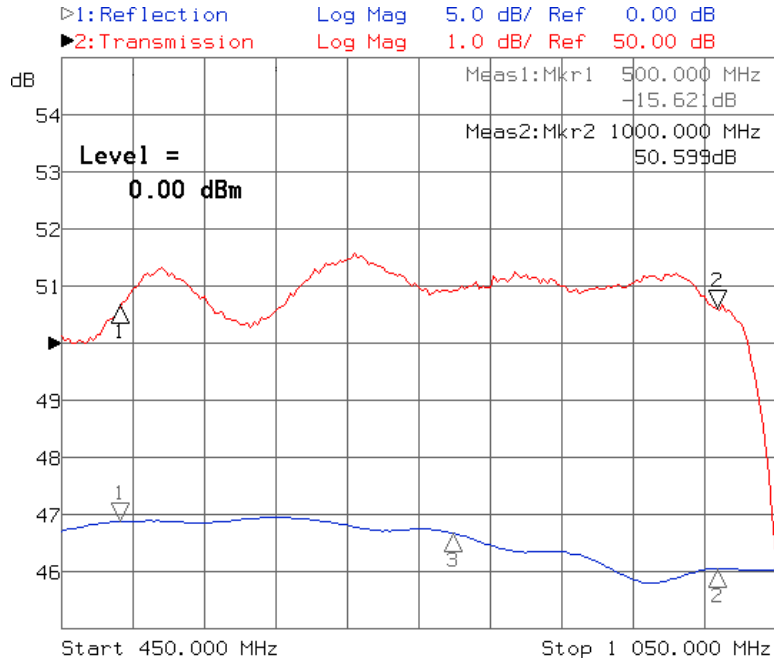


Small Signal Frequency Response Curve

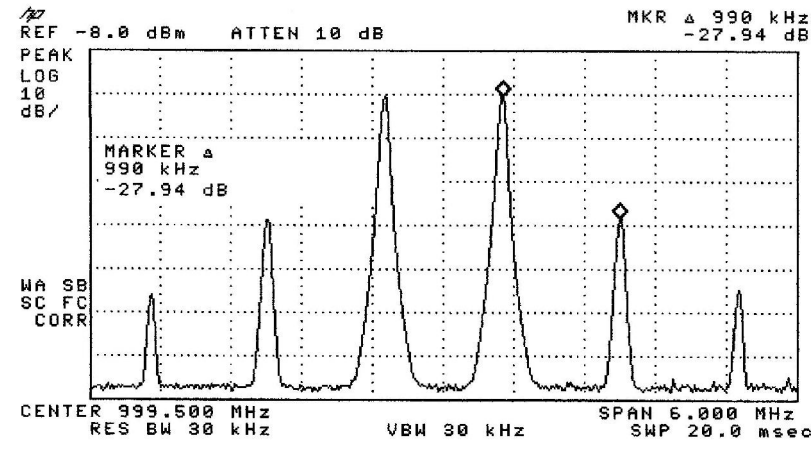


Frequency Response Curve @ 50 Watt Output

## Response Curve



Frequency Response Curve @ 100 Watts Output



Two Tones 25 Watts Avg. Per Tone @ 999 & 1000Mhz IP3 = +58dBm

**Outline Drawing**

