

## 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 3<sup>rd</sup> order intercept point. Suggested applications: multi-carrier, pulse, AM & FM modulation.

Updated:0609

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

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>		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 & x901MHz	IP <sub>3</sub>		58		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current @ 100watts	Amps		17	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	9 x 6.125 x 1.25	Max	Inch
RF Connectors IN/OUT	SMA in, N out	-	-
DC Connectors	High Power D-sub / with mate	-	-
Cooling	Heat-sink not included	-	-
Weight	1.5	Typ	lb

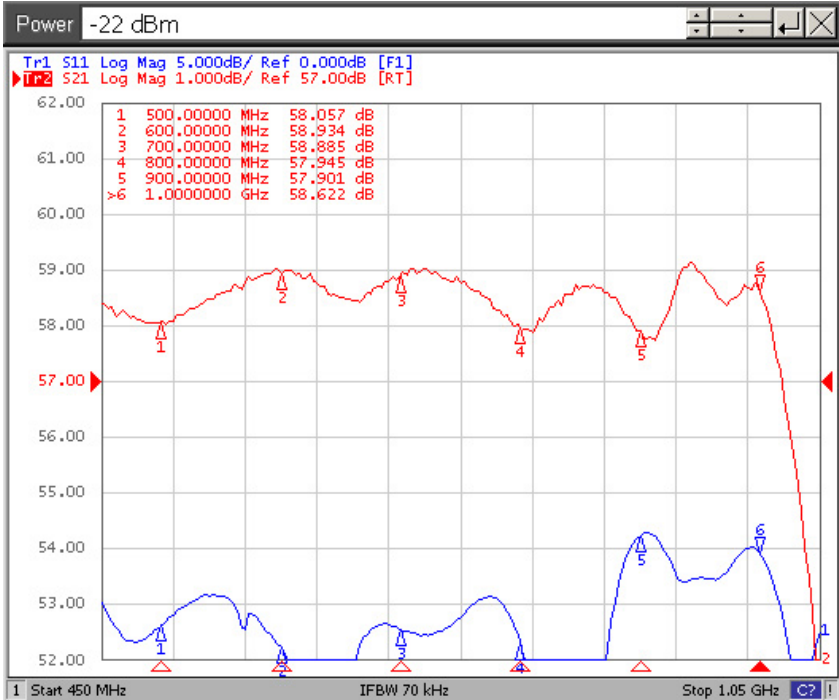
**PROTECTIONS**

Thermal Shutdown	Bi-metal switch set at 80°C with self reset.	Typ
Input Overdrive	+0dBm Max	Max
Load VSWR	4.0:1 up to 100 watts	Max
Reverse Polarity Protection	None	-

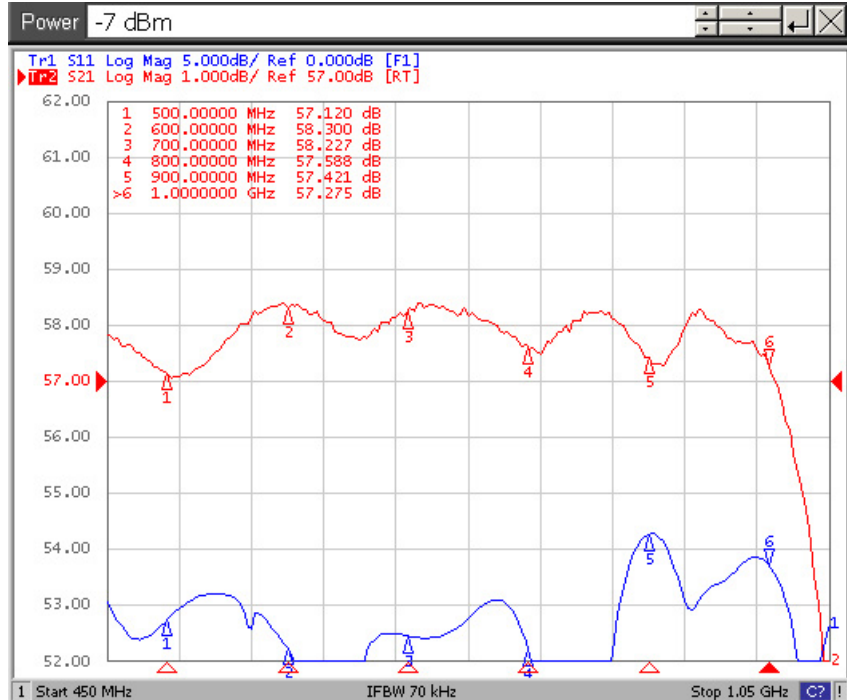
**ENVIRONMENTAL CHARACTERISTICS**

Parameter	Symbol	Min	Typ	Max	Units
Operating Case Temperature	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**

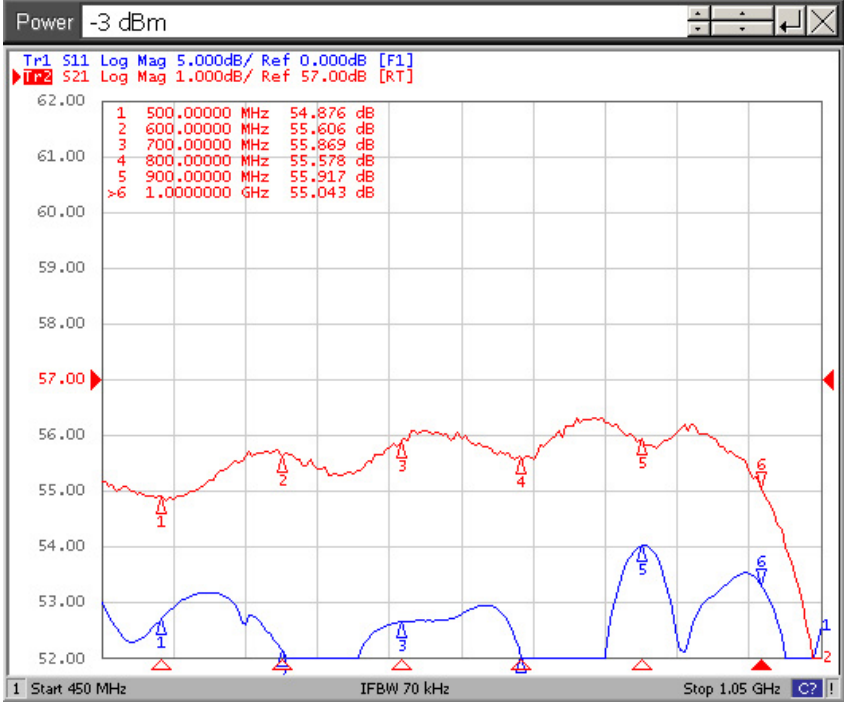


Small Signal Frequency Response Curve

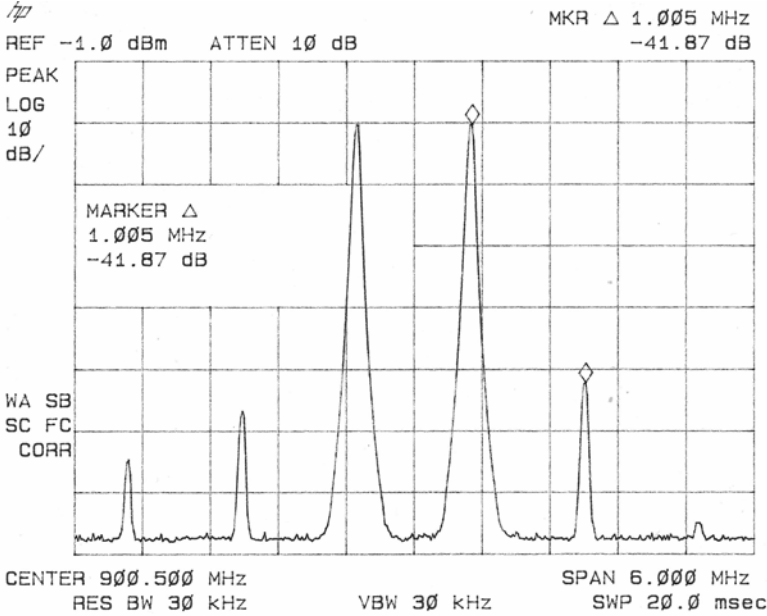


Frequency Response Curve @ 100 Watt Output

**Response Curve**

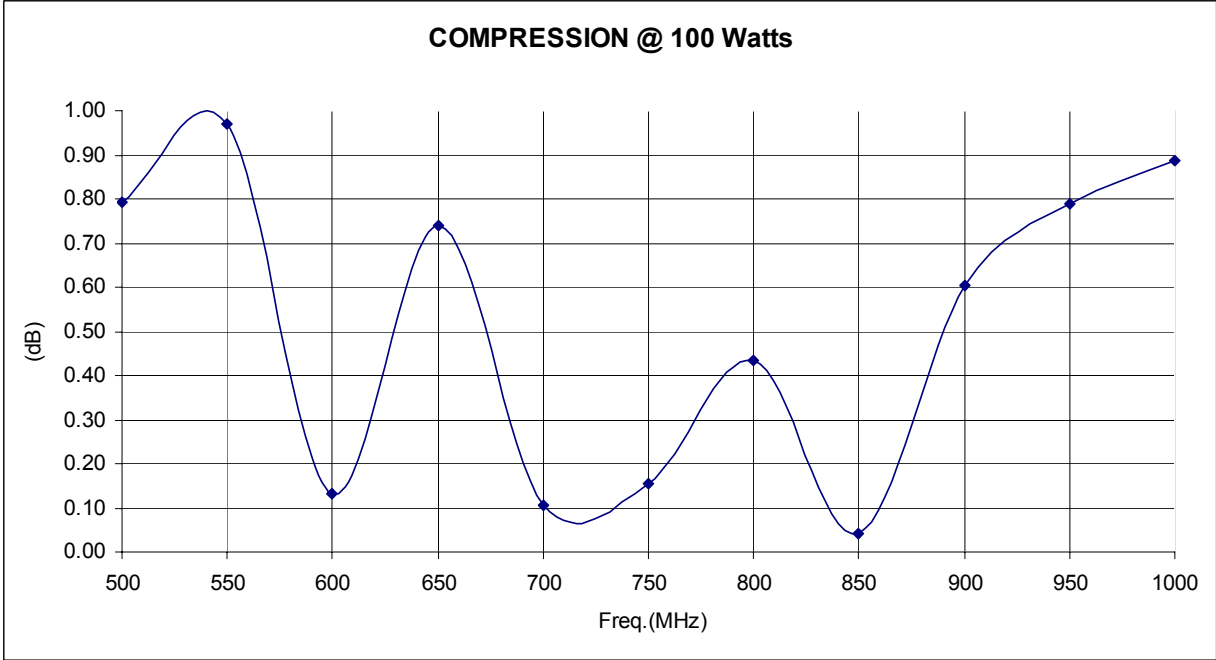
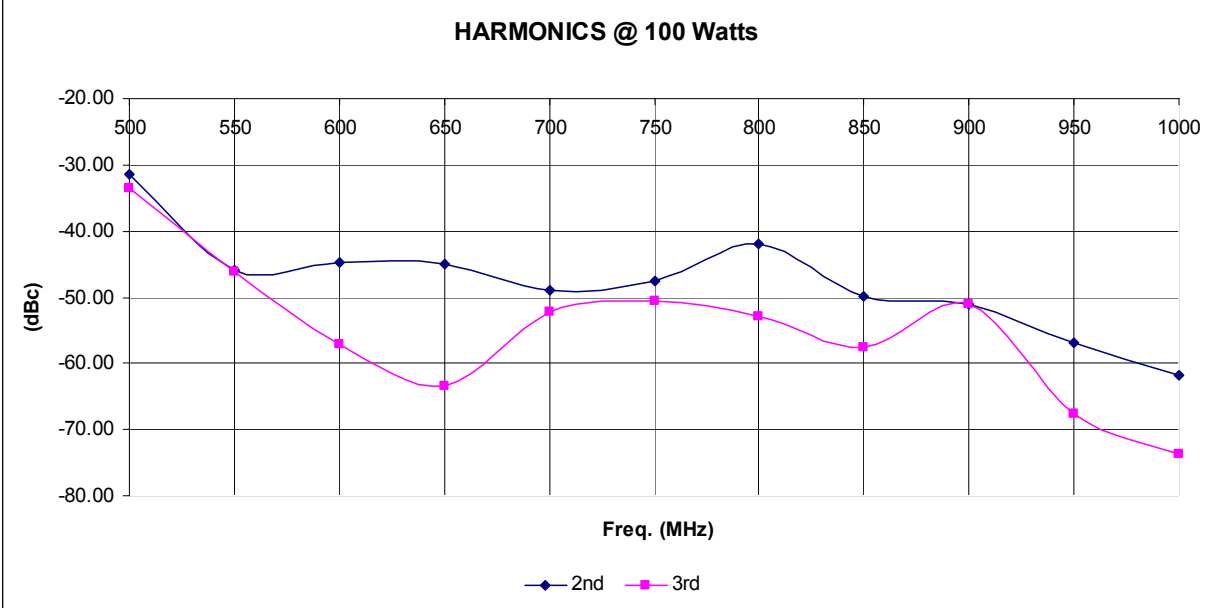


Frequency Response Curve @ 150 Watts Output



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

**Response Curve**



Outline Drawing

