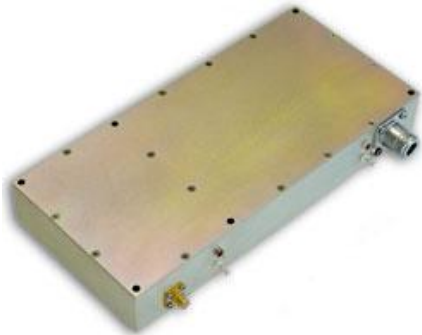


Linear RF Amplifier

- Frequency Response: 27-100 MHz
- Linear Power: 100 watt
- Saturated Power: 150 watts
- Gain: 48 dB



Description:

Designed for linear application in the 27 to 100 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 and military jammers.

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

0513

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	27		100	MHz
Power Output Saturated	P _{sat}		150		Watt
Power Output P-1dB	P _{-1dB}	80	100		Watt
Gain	G	48	50		dB
Small Signal Gain Flatness	ΔG		±0.5	±1	dB
Input VSWR	S11		1.3:1	1.5:1	-
Harmonics @ 100 Watts 2 nd /3 rd	H			-28 / -17	dBc
Inter-modulation Point 2 Tones, 5W per tone @ 50 & 51 MHz	IP ₃		+58		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current @ 100 Watts	Amps		9	12	Amp
Enable / Disable (shut down pin: gnd=off, open=on)	ms	Typical: 1ms OFF, 10ms ON.			ms

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimensions	8.5 x 4.0 x 1.263	Max	Inch
RF Connectors IN/OUT	SMA In / N out	-	-
DC Connectors	Filtered feed-through	-	-
Cooling	Heat-sink not included	-	-
Weight	2.25	Max	lb

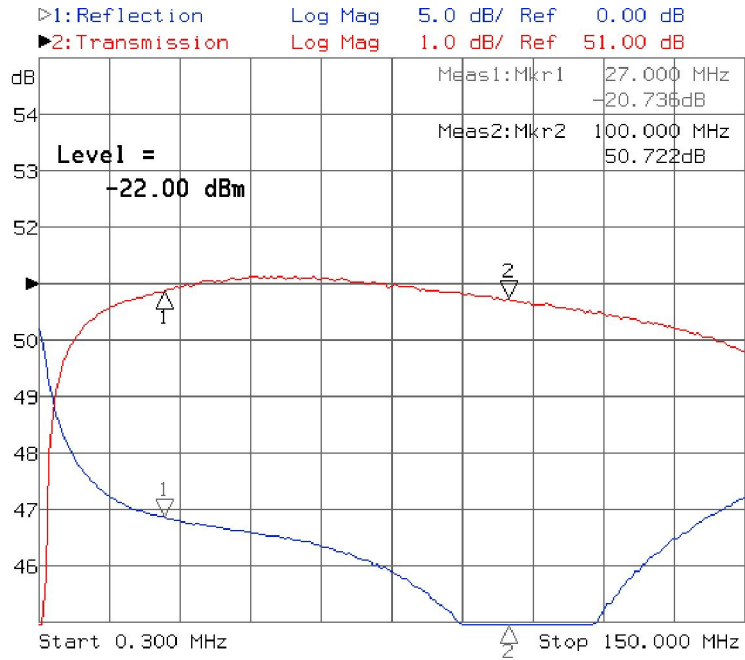
PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 80°C with self reset.	Typ
Input Overdrive	+4dBm Max	Max
Load VSWR	3.0:1 up to 100 Watts	Max
Reverse Polarity Protection	None	-

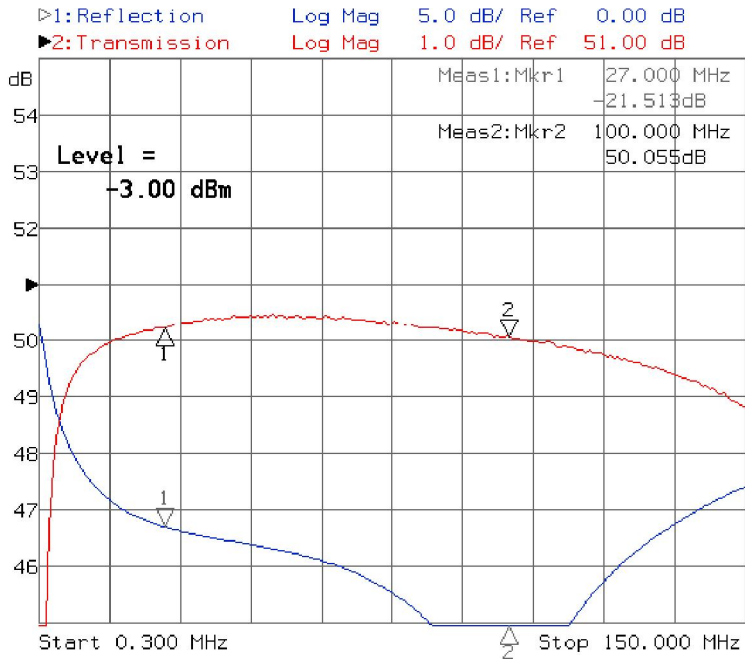
ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Units
Operating Case Temperature	T _c	0°C		+70°C	°C
Storage Temperature	T _{stg}	-30°C		+100°C	°C
Relative humidity non-condensation	RH	95			%

Response Curve

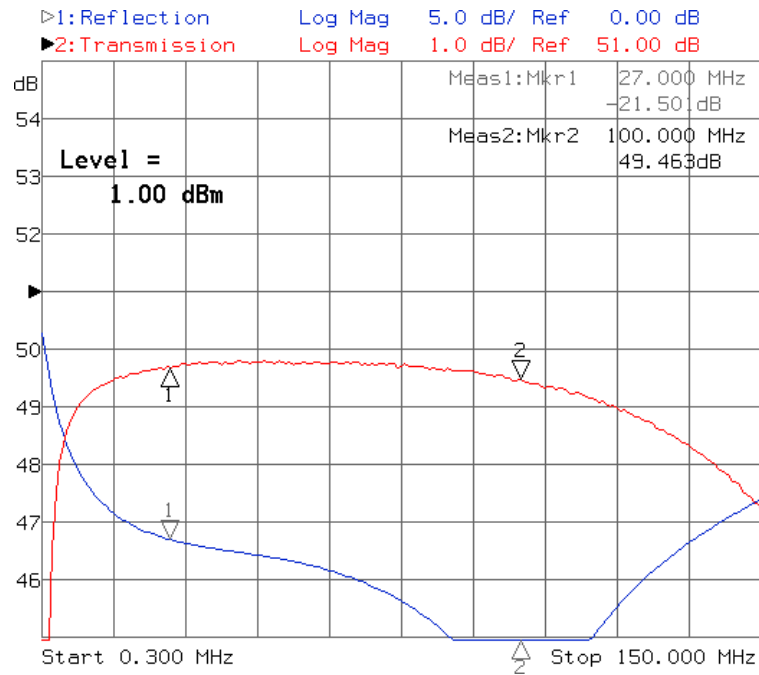


Small Signal Frequency Response Curve

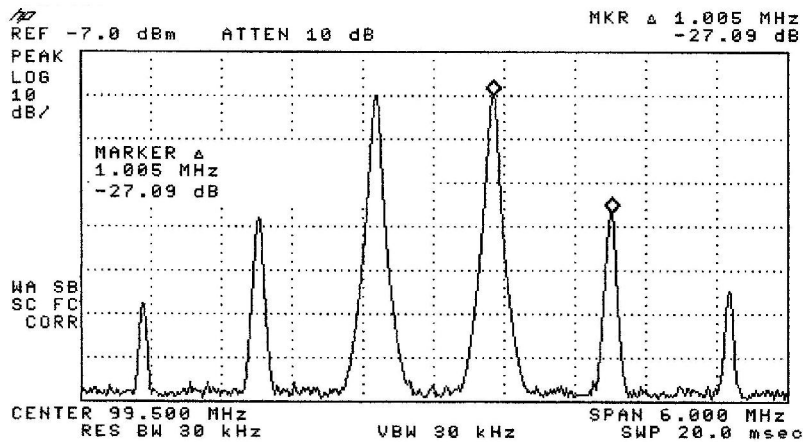


Frequency Response Curve @ 50 Watt Output

Response Curve



Frequency Response Curve @ 100 Watts Output



Two Tones 25 Watts Avg. Per Tone @ 99 & 100MHz
IP3 = +57dBm

Outline Drawing

