

Booster RF Amplifier

- **Frequency Response: 30-88 MHz**
- **Linear Power: 80 watt**
- **Saturated Power: 100 watts**
- **Gain: 13 dB**



Description:

Designed to boost the output of FM military VHF transceivers. Mechanically replaces the cover on the vehicle mount adapter's power supply. This amplifier utilizes RF power MOSFET devices that provide high gain, wide dynamic range and excellent ruggedness.

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

0513

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	30		88	MHz
Power Output Saturated	P _{sat}		100		Watt
Power Output P-1dB	P _{-1dB}	80			Watt
Gain	G	10	13		dB
Small Signal Gain Flatness	ΔG			±1.0	dB
Input VSWR	S11		1.5:1	2.0:1	-
Harmonics @ 80W, 2 nd /3 rd	H		-40/-20		dBc
AM Distortion 25 Carrier, 90% modulation @ 1KHz	Dis		3.3		%
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	22	25	30	Volt
Operating Current @ 80W	Amps		9.0		Amp
Enable / Disable (shut down pin: gnd=off, open=on)	ms		N/A		ms

MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimensions	3.7 x 10.8 x 4.4	Max	Inch
RF Connectors IN/OUT	BNC	-	-
DC Connectors	AMPHENOL 187647-1 (4 PIN)	-	-
Cooling	Heat-sink, natural convection	-	-
Weight	6	Max	lb

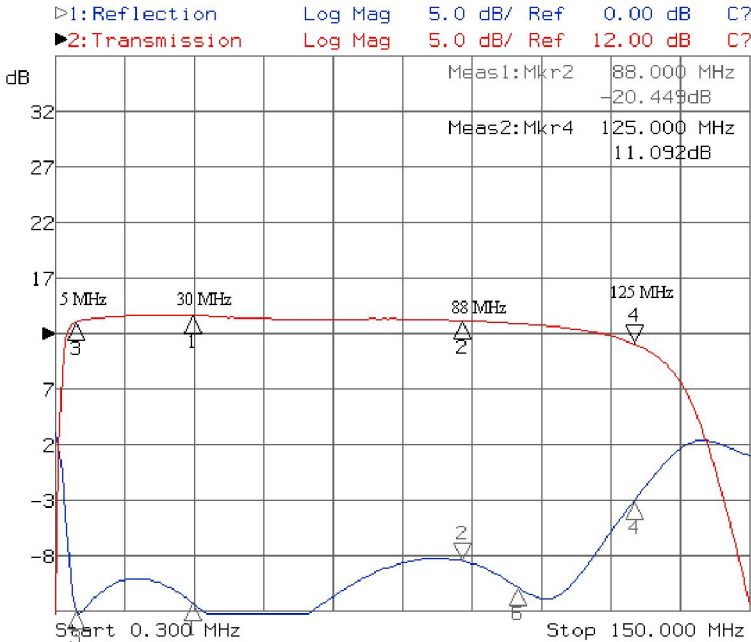
PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 80°C with self reset.	Typ
Input Overdrive	40 dBm Max	Max
Load VSWR	Infinite up to 50 watts	Max
Reverse Polarity Protection	None	-

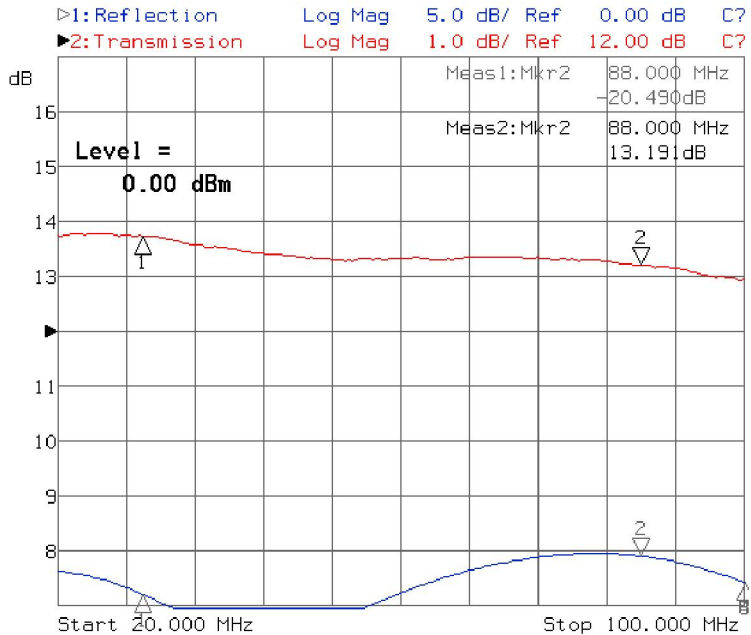
ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Units
Operating Case Temperature	T _c	-10°C		+70°C	°C
Storage Temperature	T _{stg}	-30°C		+100°C	°C
Relative humidity non-condensation	RH	95			%

Response Curve

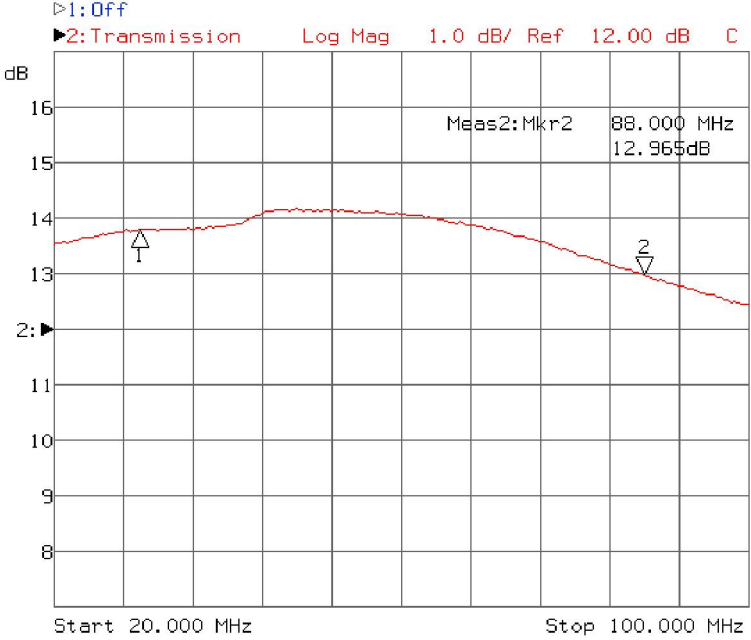


Broadband Small Signal Frequency Response Curve

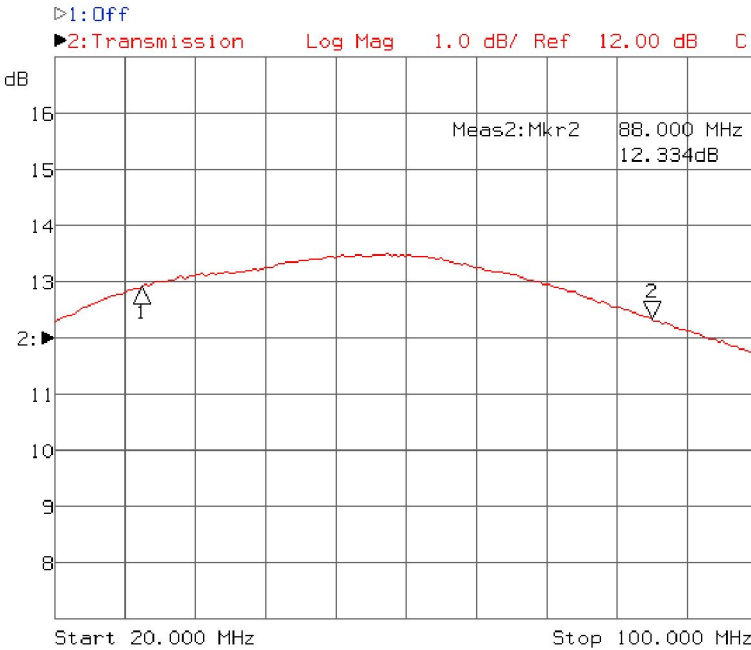


Small Signal Frequency Response Curve

Response Curve

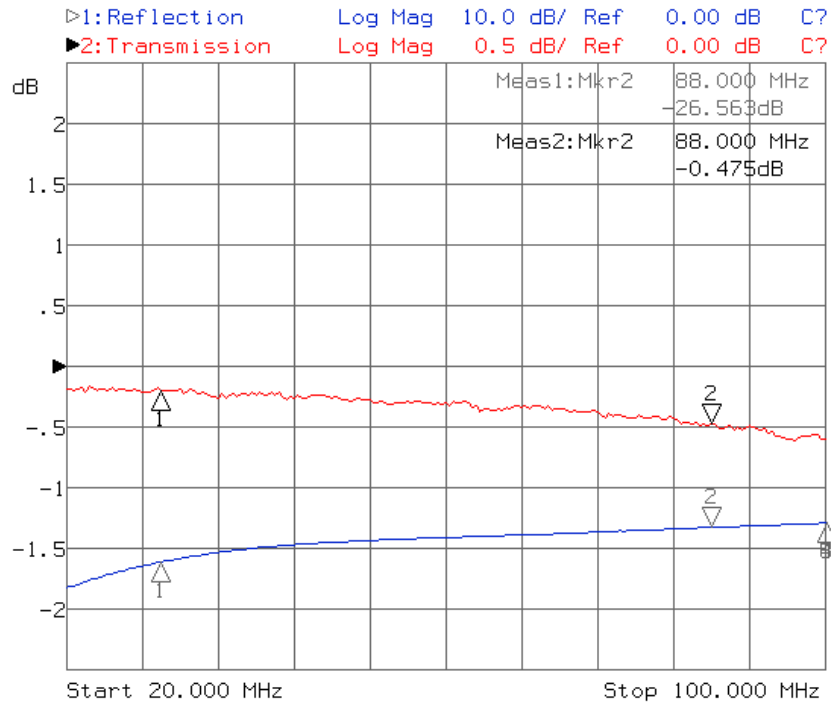


Frequency Response Curve @ 50 Watt Output



Frequency Response Curve @ 100 Watt Output

Response Curve



Through loss

Outline Drawing

