

## FM Broadcast Band Amplifier

- Frequency Response: 88-108 MHz
- Linear Power: 180 watt
- Saturated Power: 200 watts
- Gain: 67 dB



**Description:**

Designed for high power application in the 88 MHz to 108 MHz FM broadcast band range. Suggested applications: multi-carrier, pulse, AM & FM modulation.

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

0513

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	88		108	MHz
Power Output Saturated	P <sub>sat</sub>		200		Watt
Power Output P-1dB	P <sub>-1dB</sub>	150	180		Watt
Gain	G	63	67		dB
Small Signal Gain Flatness	ΔG			±0.5	dB
Input VSWR	S11		1.3:1	1.4:1	-
Harmonics @ 150 Watts 2 <sup>nd</sup> /3 <sup>rd</sup>	H		-40 / -25	-30 / -20	dBc
Inter-modulation Point 2 Tones, 5W per tone @ 99 & 100 MHz	IP <sub>3</sub>		+57		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	V <sub>dc</sub>	24	28	30	Volt
Operating Current @ 150 Watts	Amps		13	16	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 x 4.9 x 1.25	Max	Inch
RF Connectors IN/OUT	N	-	-
DC Connectors	Filtered feed-through	-	-
Cooling	Heat-sink not included	-	-
Weight	2.5	Max	lb

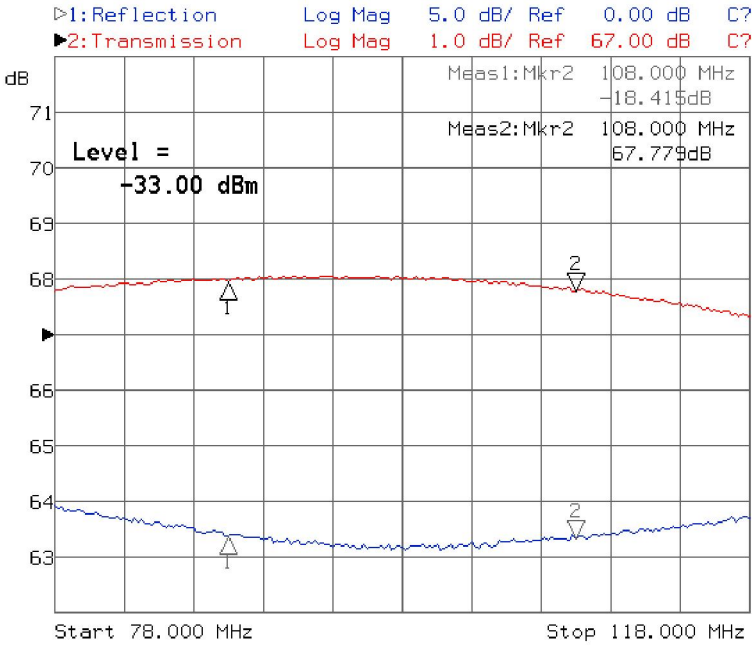
**PROTECTIONS**

Thermal Shutdown	Bi-metal switch set at 80°C with self reset.	Typ
Input Overdrive	0dBm Max	Max
Load VSWR	3.0:1 up to 180 Watts	Max
Reverse Polarity Protection	Included	-

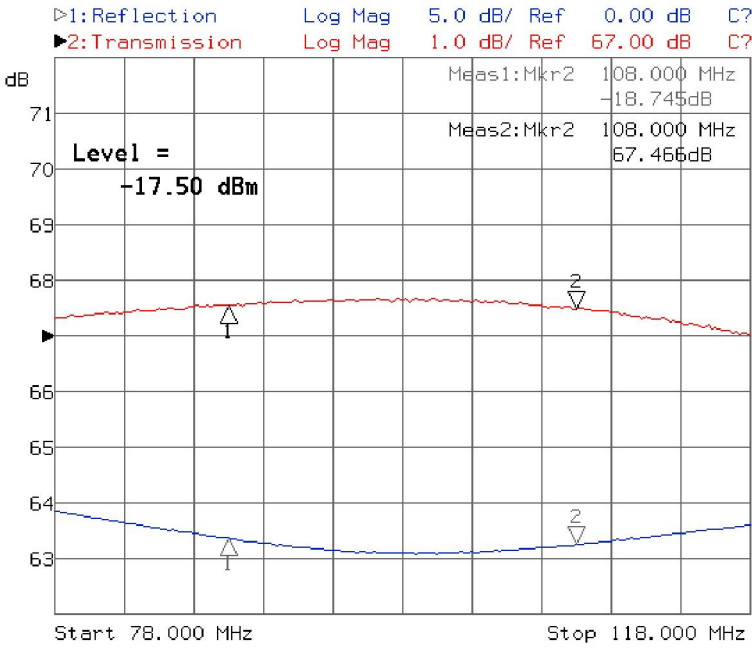
**ENVIRONMENTAL CHARACTERISTICS**

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

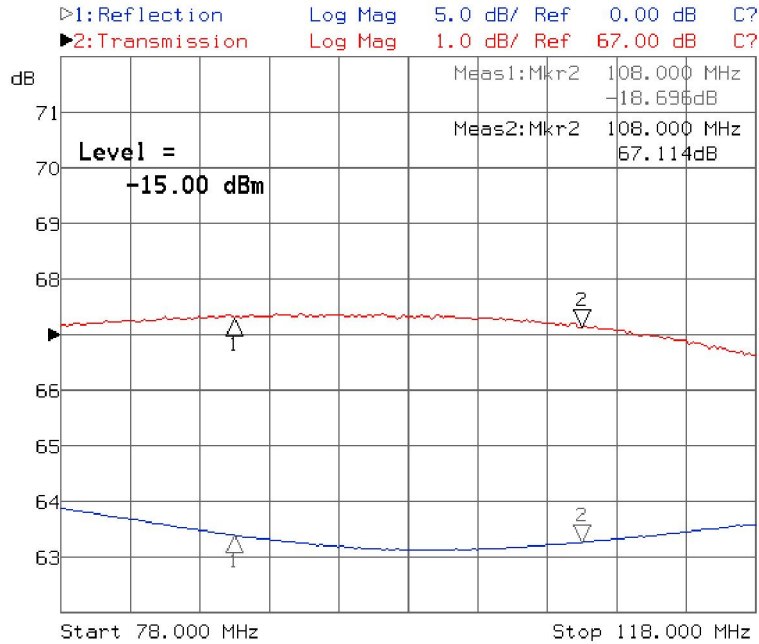


Small Signal Frequency Response Curve

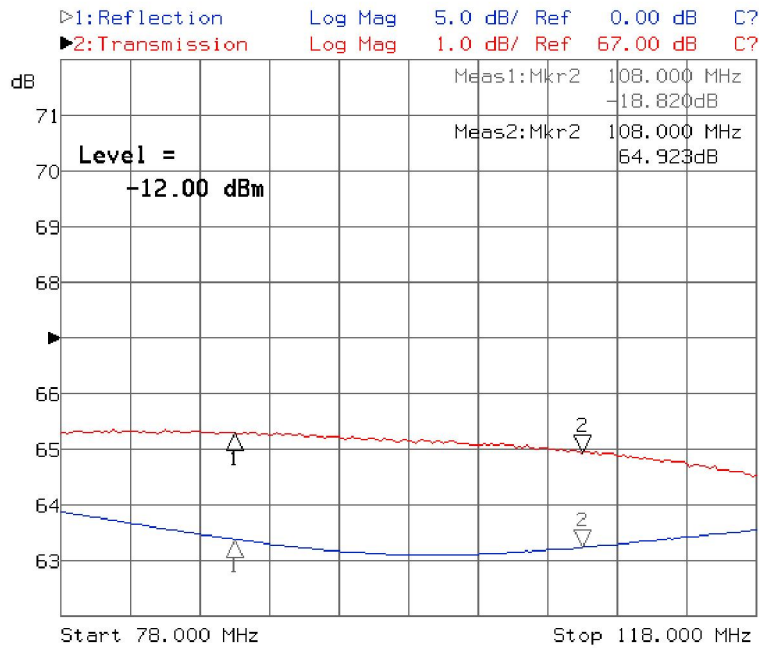


Frequency Response Curve @ 100 Watt Output

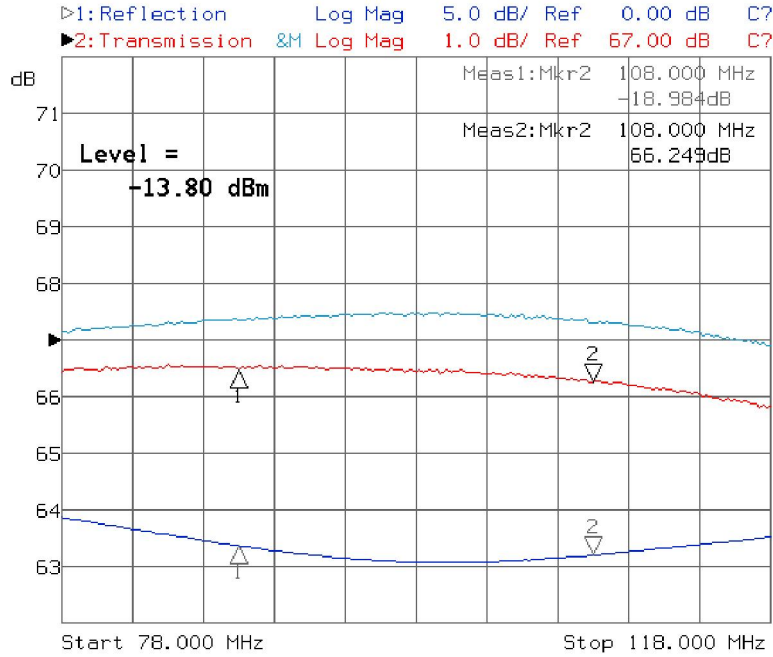
## Response Curve



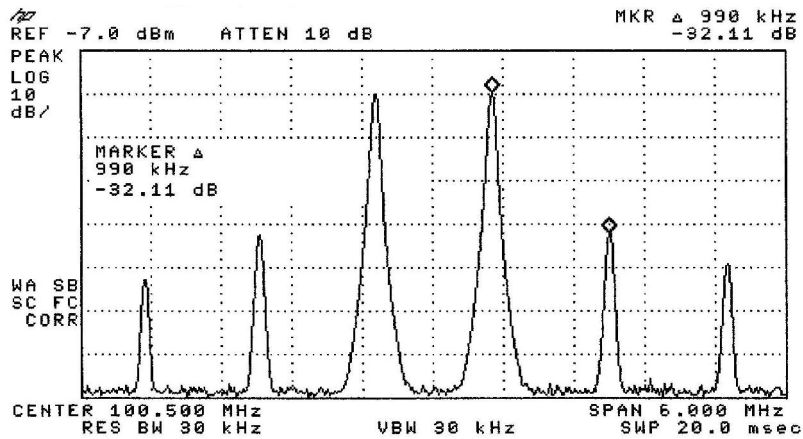
Frequency Response Curve @ 150 Watt Output



Frequency Response Curve @ 200 Watt Output



Frequency Response Curve @ P-1dB Compression



Two Tones 12.5 Watts Avg. Per Tone @ 100 & 101 MHz  
IP3 = +57dBm

**Outline Drawing**

