

## Linear Cell Band RF Amplifier

- **Frequency Response: 800-960MHz**
- **Linear Power: 50 watt**
- **Saturated Power: 80 watts**
- **Gain: 50 dB**

Heatsink  
Optional



### Description:

Designed for linear application in the 800-960 MHz range. This class A/AB 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: GSM, multi-carrier, pulse, AM & FM modulation.

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

0613

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	800		960	MHz
Power Output Saturated	P <sub>sat</sub>		80		Watt
Power Output P-1dB	P <sub>-1dB</sub>	48	50		Watt
Gain	G	45	48		dB
Small Signal Gain Flatness	ΔG		±0.5	±1.0	dB
Input VSWR	S11		1.35:1	1.55:1	-
Harmonics @ 50 Watts 2 <sup>nd</sup> /3 <sup>rd</sup>	H		-50	-40 / -38	dBc
Inter-modulation Point 2 Tones, 10W per tone @ 959 & 960 MHz	IP <sub>3</sub>		+55		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current @ 50 Watts	Amps		8	9	Amp
Enable / Disable (shut down pin: gnd=off, open=on)	Ms	Typical: 1ms OFF, 10ms ON.			ms

### MECHANICAL SPECIFICATION

Parameter	Description	Limits	Units
Dimensions: Module / Module + Heatsink	6.00x2.95x1.04 / 9.75x7.30x6.50	Max	Inch
RF Connectors IN/OUT	SMA	-	-
DC Connectors	Filtered feed-through	-	-
Cooling: "Optional"	Heat-sink and fan	-	-
Weight: Module / Module + Heatsink	1 / 8.75	Max	lb

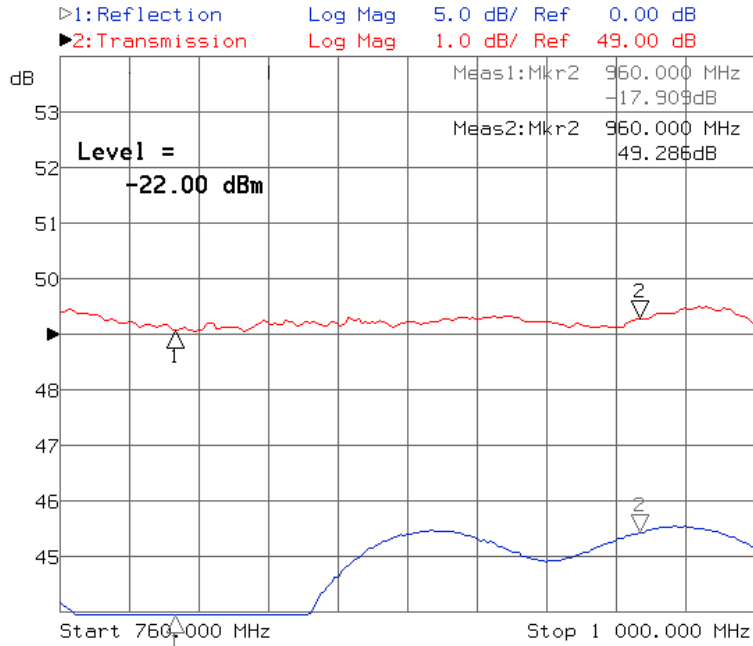
### PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 80°C with self reset.	Typ
Input Overdrive	Fold-back overdrive protection to 20 dBm.	Max
Load VSWR	4.0:1 up to 50 Watts	Max
Reverse Polarity Protection	Included	-

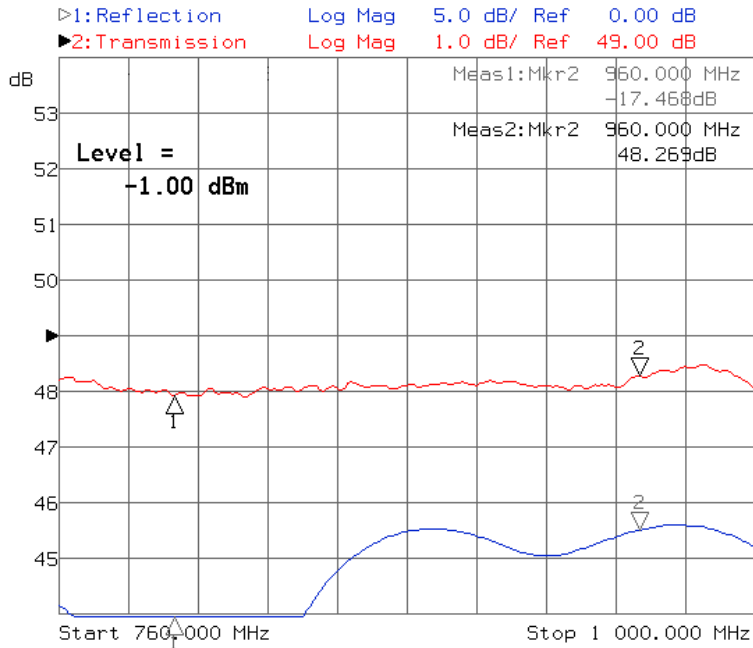
### ENVIRONMENTAL CHARACTERISTICS

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

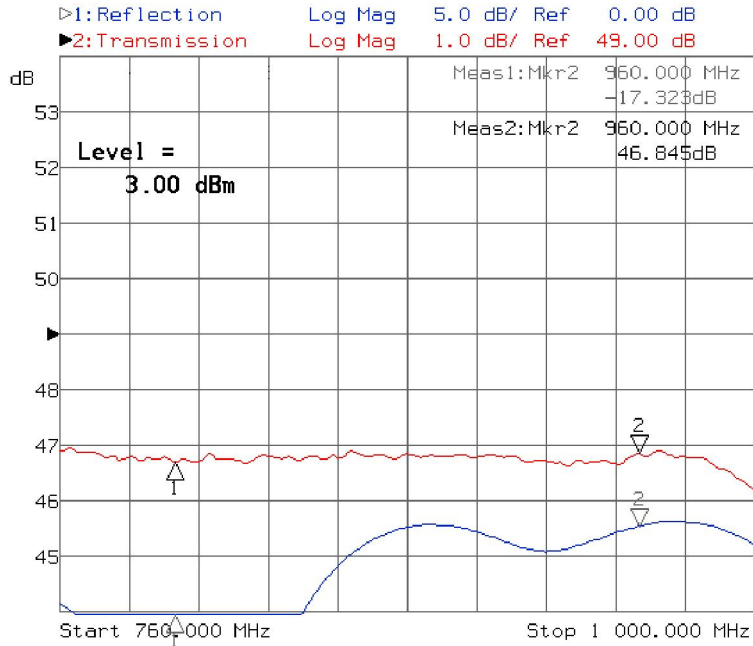


Small Signal Frequency Response Curve Markers at 800 & 960 MHz

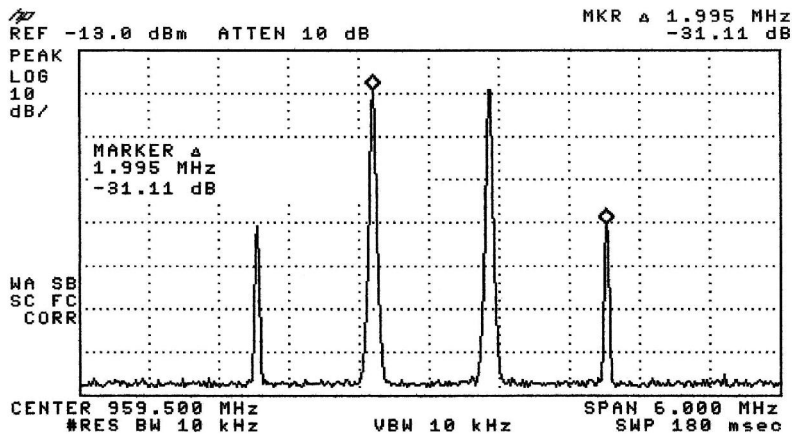


Frequency Response Curve @ 50 Watt Output Markers at 800 & 900 MHz

## Response Curve

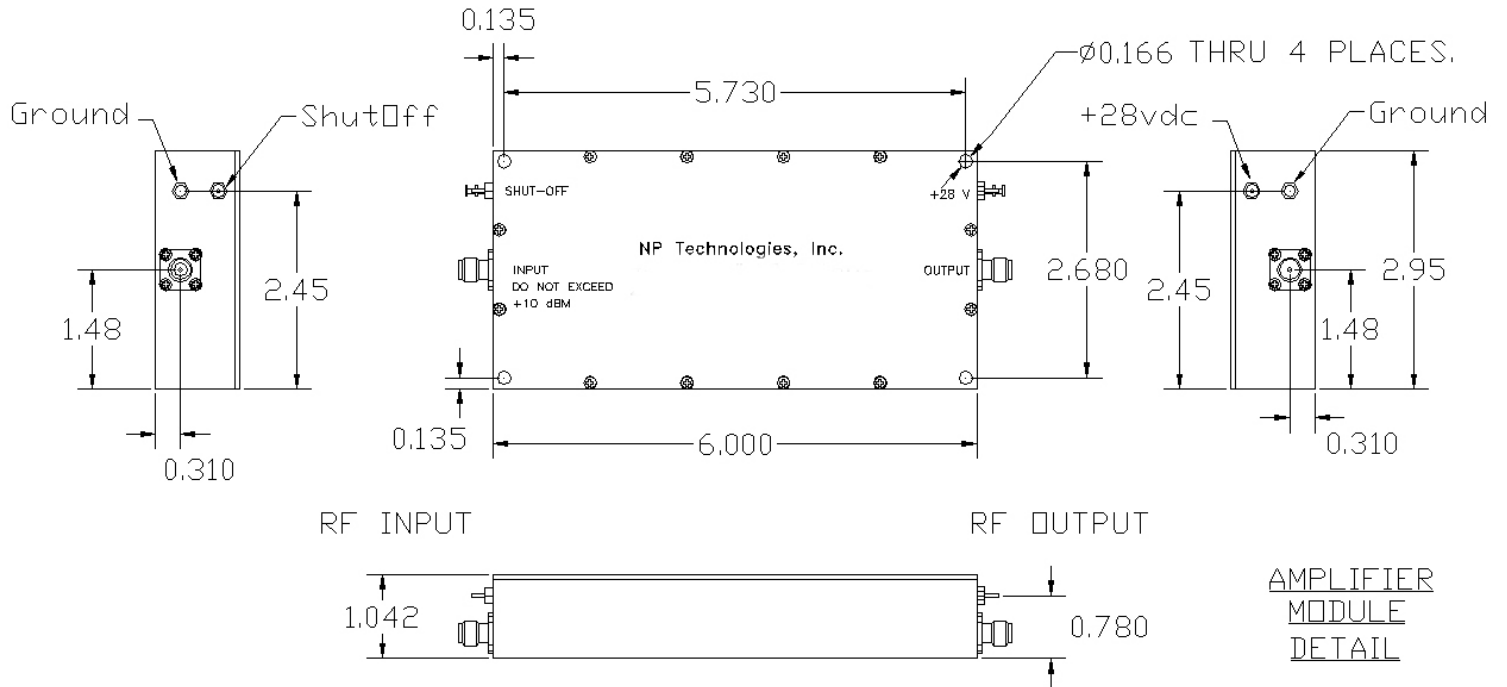


Frequency Response Curve @ 100 Watts Output Markers at 800 & 960 MHz

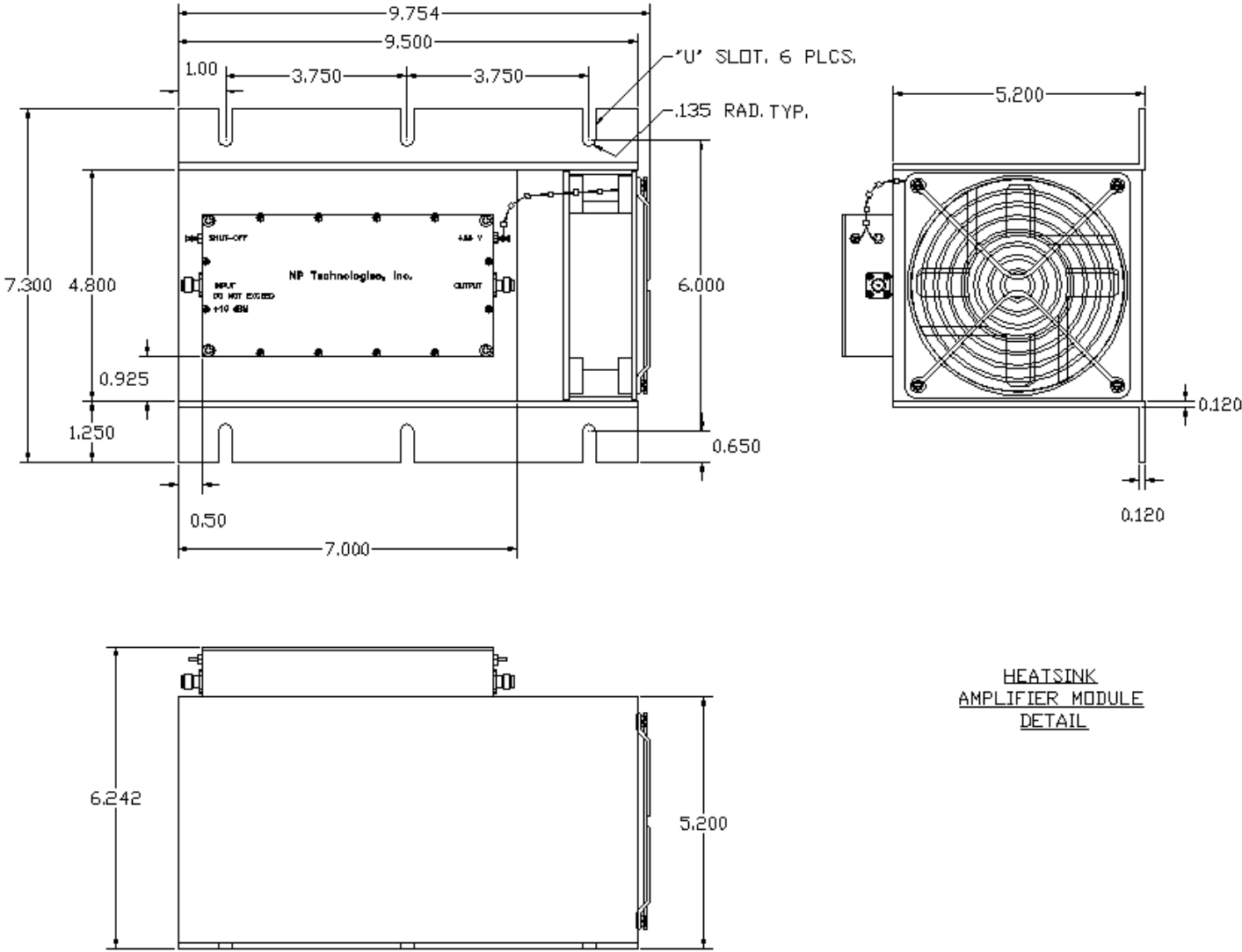


Two Tones 10 Watts Avg. Per Tone @ 959 & 960MHz  
 IP3 = +55dBm

**Outline Drawing: Module**



**Outline Drawing: Module + Heatsink**



HEATSINK  
AMPLIFIER MODULE  
DETAIL