

Broadband Linear RF Amplifier

- **Frequency Response: 400-1000MHz**
- **Linear Power: 50 watt**
- **Saturated Power: 75 watts**
- **Gain: 48 dB**

Heatsink
Optional



Description:

Designed for linear application in the 400 to 1000 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.

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

0613

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	400		1000	MHz
Power Output Saturated	P _{sat}		75		Watt
Power Output P-1dB	P _{-1dB}		50		Watt
Gain	G	45	48		dB
Gain Flatness @ 50 Watts	ΔG		±0.5	±1	dB
Input VSWR	S11		1.55:1	2.0:1	-
Harmonics @ 50 Watts 400-500/550-1000 (MHz)	H		-30 / -38	-26 / -32	dBc
Inter-modulation Point 2 Tones, 5W per tone @ 950 & 951MHz	IP ₃		+55		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current @ 50 Watts	Amps		8.6	10	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

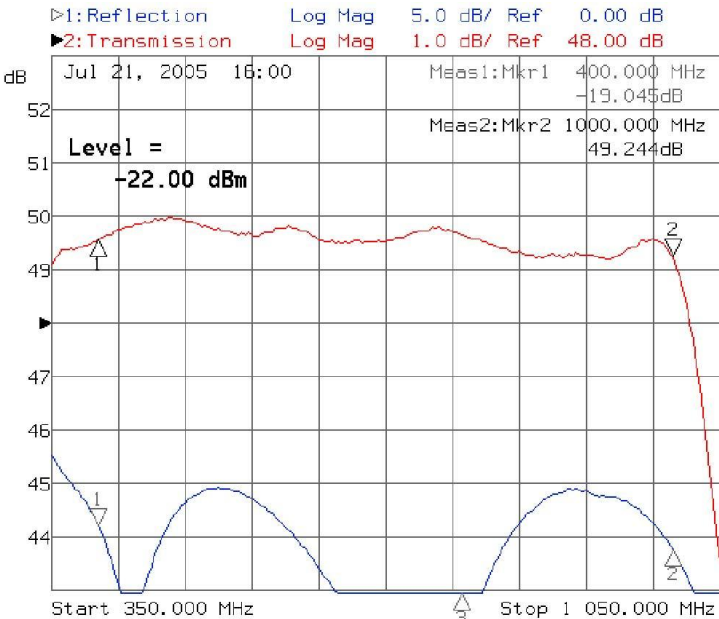
PROTECTIONS

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	-

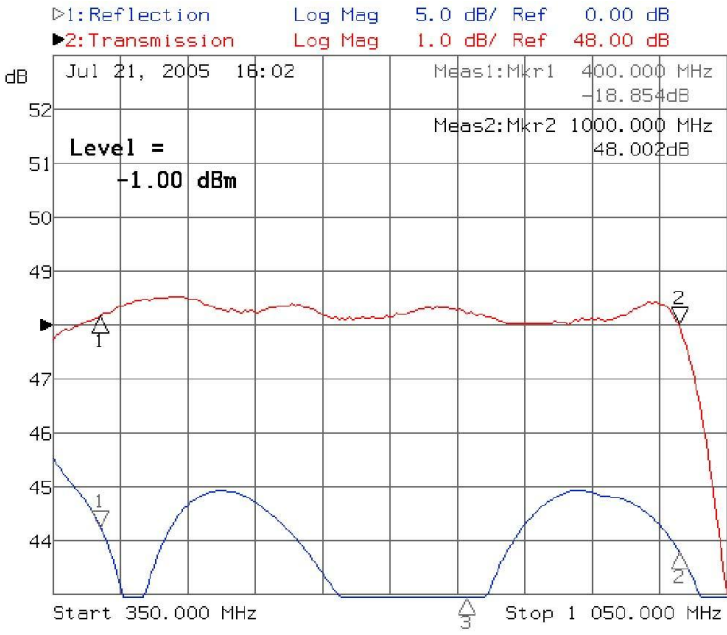
ENVIRONMENTAL CHARACTERISTICS

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

Response Curve

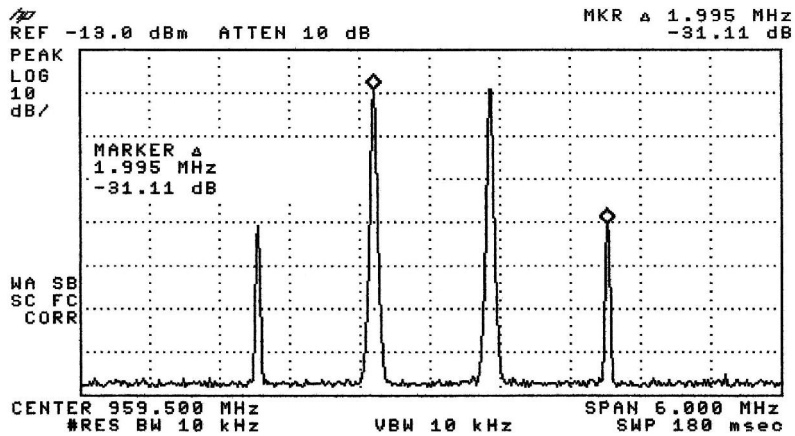
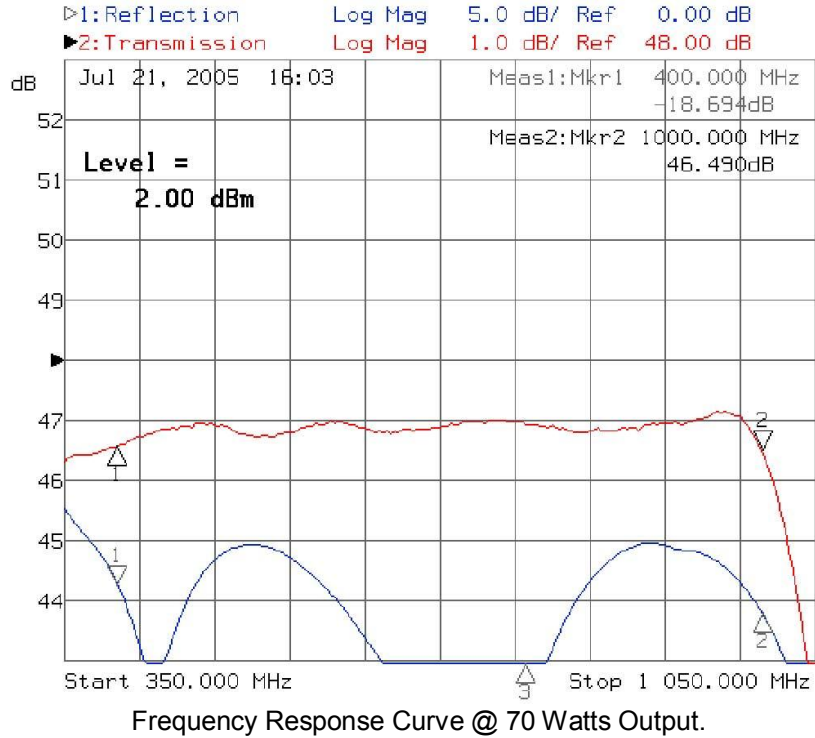


Small Signal Frequency Response.



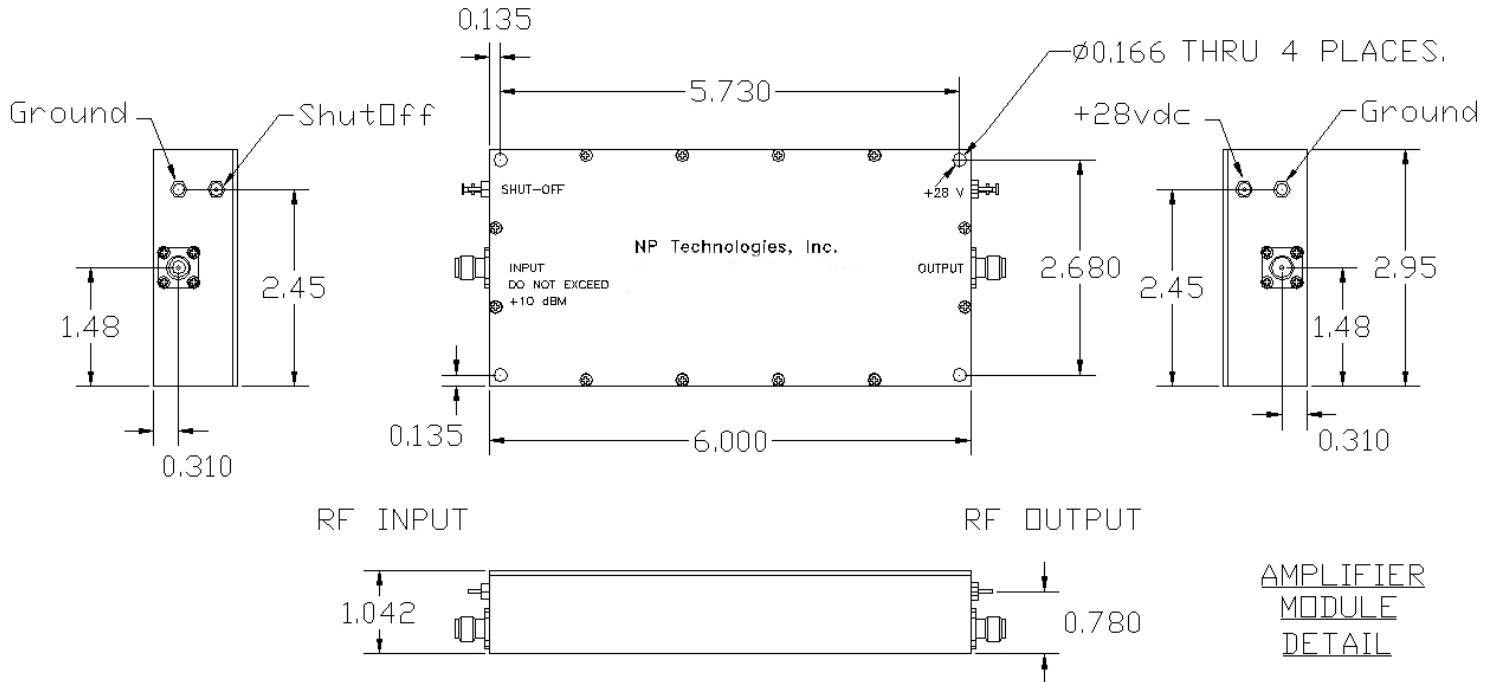
Frequency Response Curve @ 50 Watt Output.

Response Curve

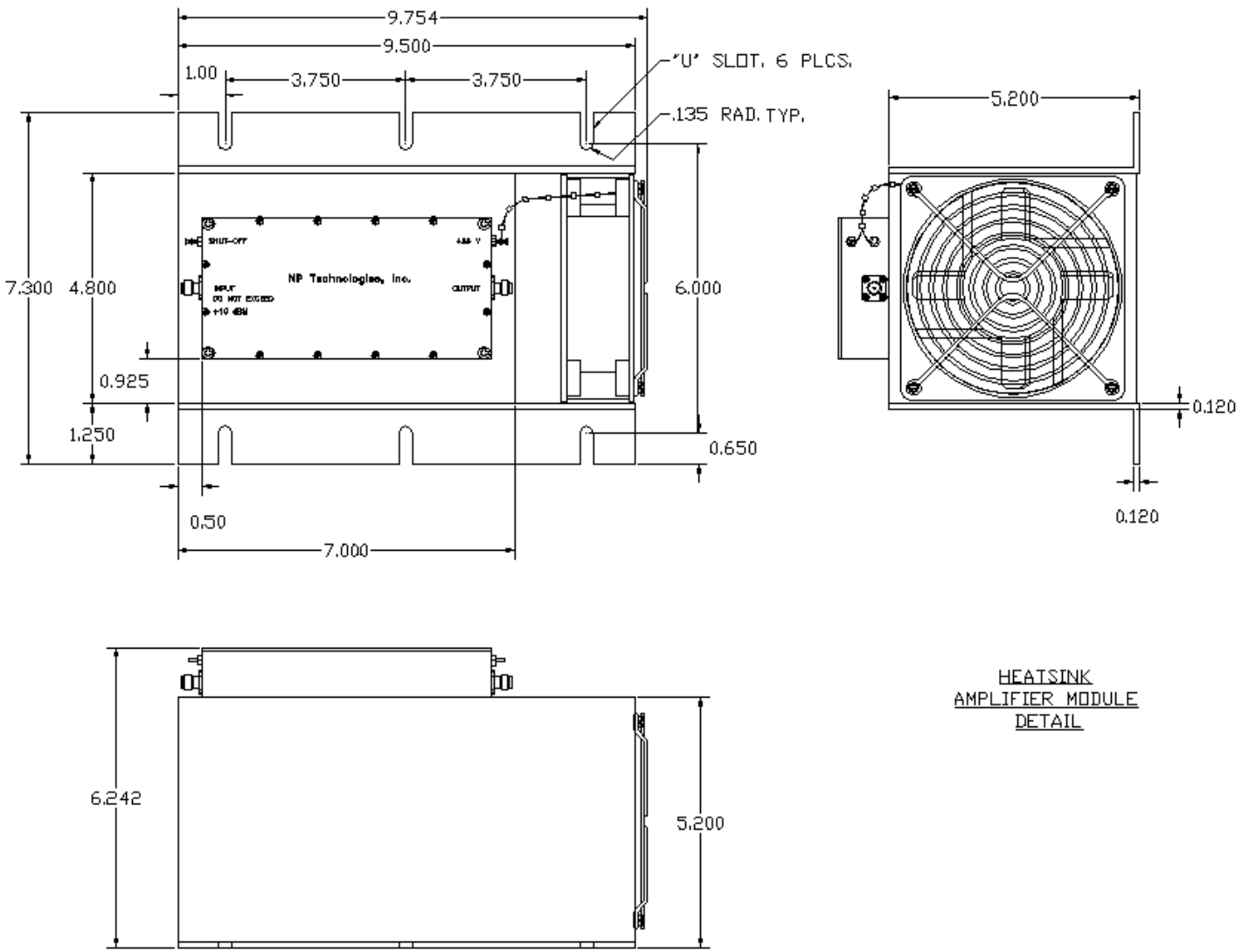


Two Tones 10 Watts Avg. Per Tone @ 959 & 960MHz
 IP3 = +55dBm

Outline Drawing: Module



Outline Drawing: Module + Heatsink



HEATSINK
AMPLIFIER MODULE
DETAIL