

Linear Cell Band RF Amplifier

- Frequency Response: 800-960MHz
- Linear Power: 50 watt
- Saturated Power: 80 watts
- Gain: 48 dB

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 3rd order intercept point. Suggested applications: GSM, multi-carrier, pulse, AM & FM modulation.



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

Parameter	Symbol	Min	Typ	Max	Unit
Operating Frequency	BW	800		960	MHz
Power Output Saturated	P _{sat}		80		Watt
Power Output P-1dB	P _{-1dB}	48	50		Watt
Gain	G	45	48		dB
Small Signal Gain Flatness	ΔG		±0.5	±1.0	dB
Input VSWR	S11		1.35:1	1.45:1	-
Harmonics	H		-50	-40	dBc
Inter-modulation Point 2 Tones, 10W per tone @ 959 & 960 MHz	IP ₃		+55		dBm
Spurious Signals	dBc		-70	-60	dBc
Operating Voltage	Vdc	24	28	30	Volt
Operating Current	Amps		8.2	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	9.75 x 7.30 x 6.50	Max	Inch
RF Connectors IN/OUT	SMA	-	-
DC Connectors	Filtered feed-through	-	-
Cooling	Heat-sink and fan included	-	-
Weight	8.75	Max	lb

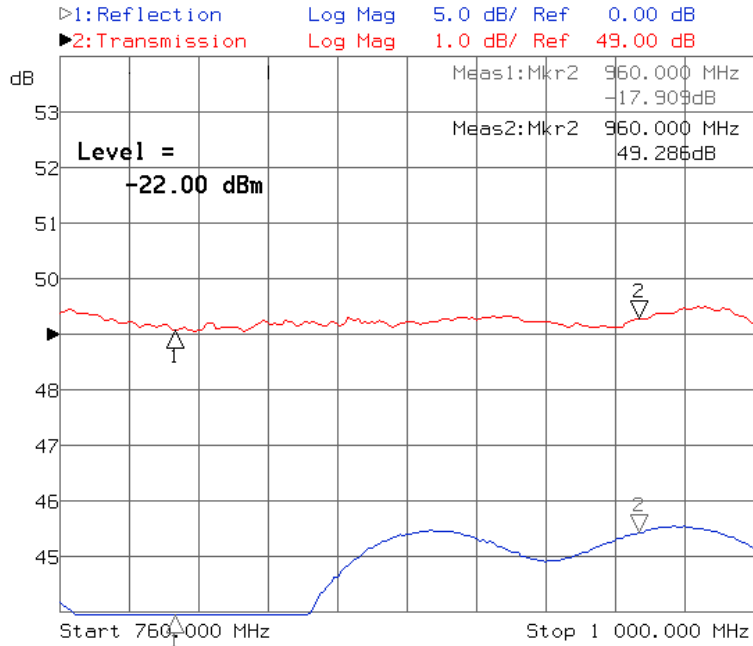
PROTECTIONS

Thermal Shutdown	Bi-metal switch set at 70°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	-

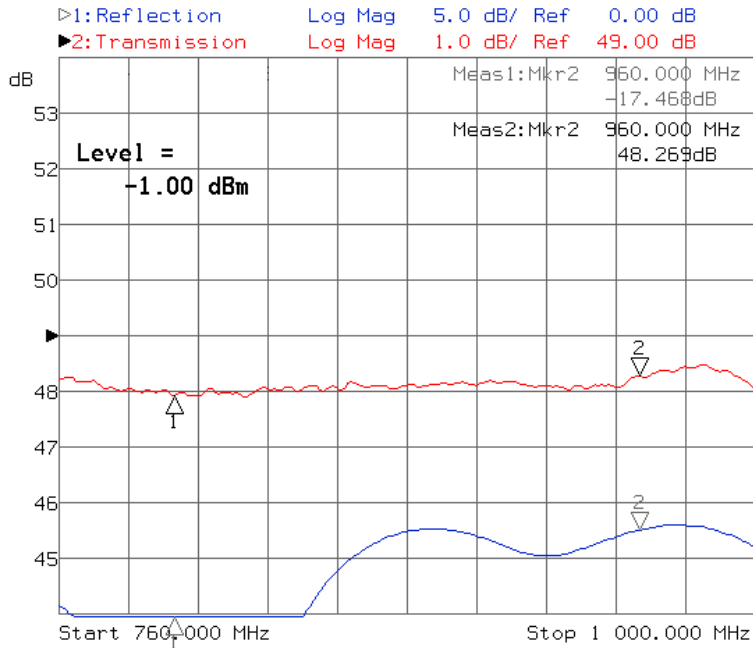
ENVIRONMENTAL CHARACTERISTICS

Parameter	Symbol	Min	Typ	Max	Units
Operating Case Temperature	T _c	0°C		+50°C	°C
Storage Temperature	T _{stg}	-30°C		+100°C	°C
Relative humidity non-condensation	RH	95			%

Response Curve

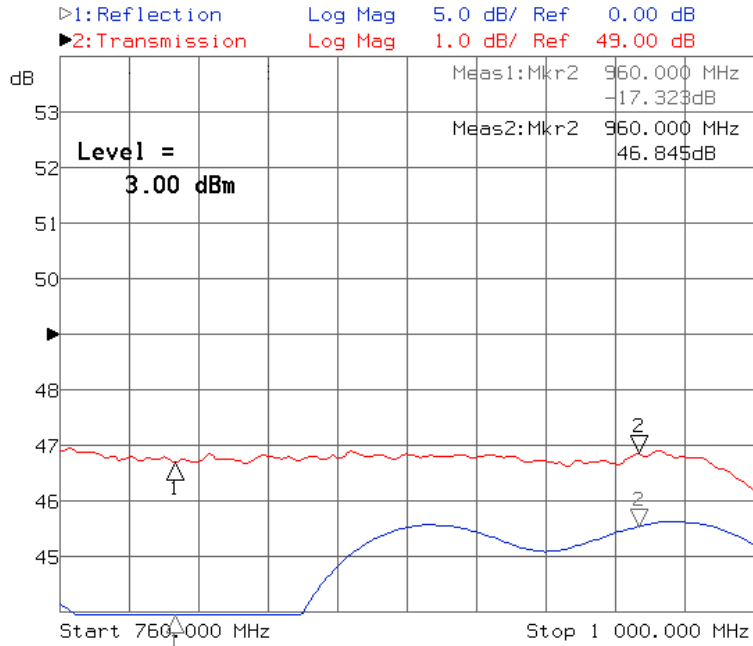


Small Signal Frequency Response Curve Markers at 800 & 960 MHz

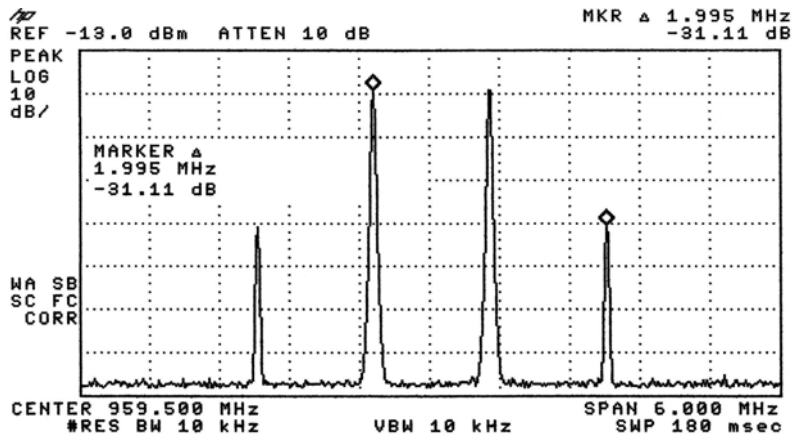


Frequency Response Curve @ 50 Watt Output Markers at 800 & 900 MHz

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 Driving

