

# RF AMPLIFIER

## MODEL *TM3107*

Available as: TM3107, 4 Pin TO-8 (T4)  
 TN3107, 4 Pin Surface Mount (SM3)  
 BX3107, Connectorized Housing (H1)

### Features

- High IP3: +38 dBm Typical
- High Second Order Harmonics: +60 dBm Typical
- Unconditionally Stable
- RoHs Compliant

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +85 °C
Frequency	500 - 2500 MHz	500 - 2500 MHz
Gain (dB)	20.0	18.0 / 22.0
Power @ 1 dB Comp. (dBm)	24	22 Min.
Reverse Isolation (dB)	-30	-29 Max.
VSWR In	1.5:1	1.8:1 Max.
Out	1.5:1	1.8:1 Max.
Noise Figure (dB)	3.5	5.0 Max.
Power Vdc	+15	+15
mA	160	180 Max.

Note: Care should always be taken to effectively ground the case of each unit.

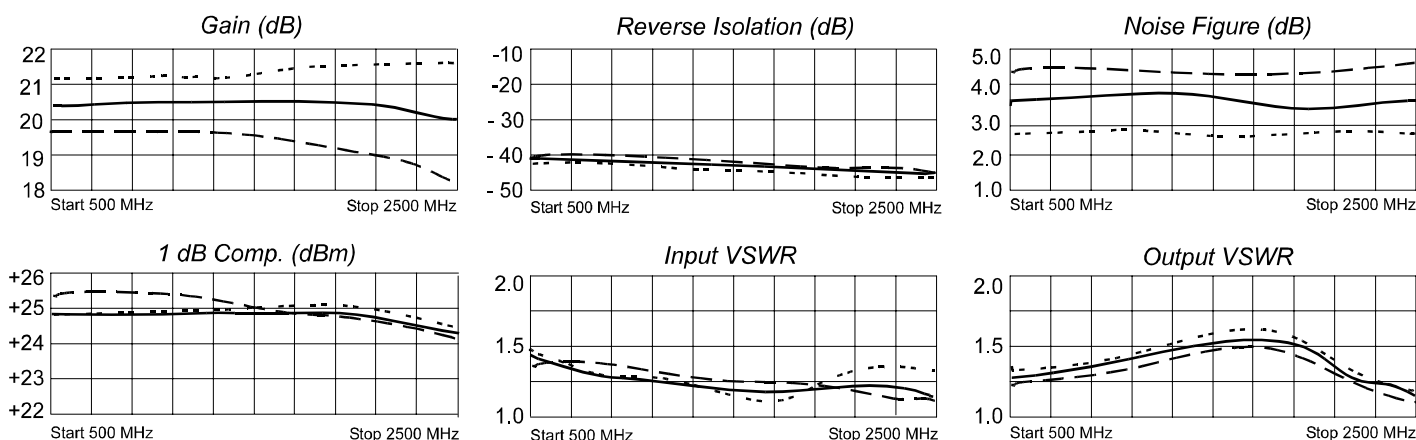
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+60 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+55 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+38 dBm (Typ.)

### Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Maximum Operating Case Temperature ..... +125 °C  
 DC Voltage.....+17 Volts  
 Continuous RF Input Power.....+15 dBm  
 Maximum Peak Power.....+20 dBm (1 µsec Max.)  
 TJC (.450" sq. Kovar Package).....+34°C

### Typical Performance Data



Legend ——— +25 °C    - - - - +85 °C    ······ -40 °C

### Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
450	.23	146	10.16	- 88	.0092	- 28	.14	123
960	.17	102	10.55	153	.0087	- 77	.19	57
1470	.08	66	10.26	36	.0063	-115	.19	- 37
2010	.11	105	10.54	- 90	.0028	157	.14	-154
2520	.22	1	10.38	132	.0045	- 21	.09	37



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