

# RF AMPLIFIER

## MODEL *TM5107*

Available as: TM5107, 4 Pin TO-8 (T4)  
 TN5107, 4 Pin Surface Mount (SM3)  
 FP5107, 4 Pin Flatpack (FP4)  
 BX5107, Connectorized Housing (H1)

### Features

- Low Noise Figure: < 1.75 dB Typical
- Medium Gain: 15 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 550 MHz	10 - 550 MHz
Gain (dB)	15.0	14.0 Min.
Power @ 1 dB Comp. (dBm)	>+2	+1.0 Min.
Reverse Isolation (dB)	- 20	- 18 Max.
VSWR In	<1.75:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<1.75	2.3 Max.
Power Vdc	+15	+15
mA	9.0	10.0 Max.

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

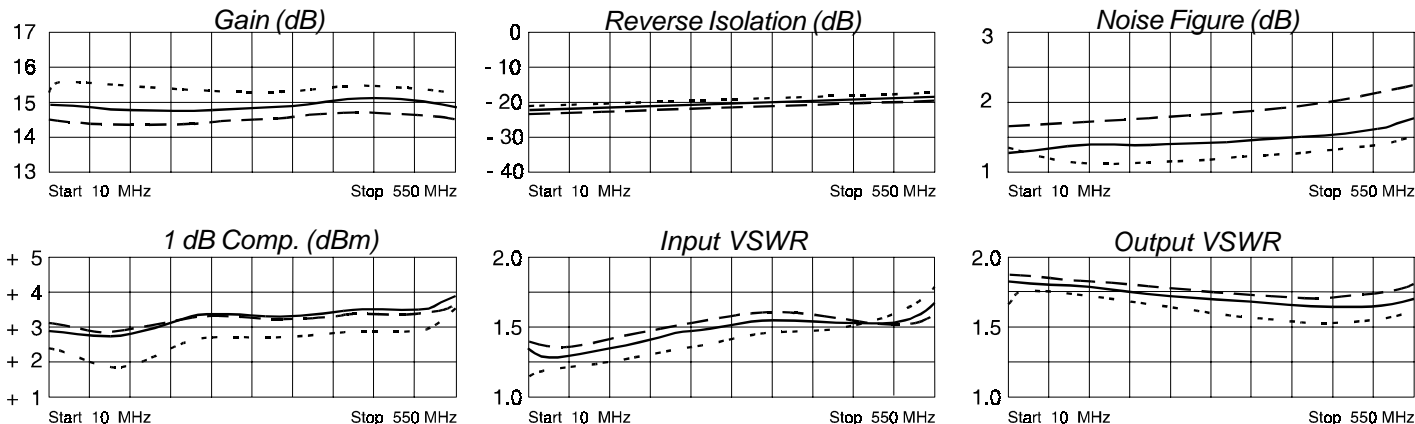
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +22 (Typ.)  
 Second Order Two Tone Intercept Point ..... +16 (Typ.)  
 Third Order Two Tone Intercept Point ..... +13 (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 100 Milliwatts  
 ..... (1 Minute Max.)  
 Maximum Peak Power ..... 0.2 Watt  
 ..... (3 µsec Max.)

### Typical Performance Data



Legend ——— + 25 °C    - - - - + 85 °C    ······ -55 °C

### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.14	- 29	5.70	-176	.09	-176	.29	- 11
50	.13	- 40	5.63	167	.09	166	.28	- 14
100	.15	- 64	5.59	154	.09	151	.27	- 23
200	.20	-106	5.54	127	.09	124	.26	- 44
300	.24	-143	5.49	101	.09	95	.25	- 67
400	.26	176	5.57	72	.10	69	.25	- 92
500	.26	117	5.56	41	.10	40	.26	-125
550	.28	80	5.47	23	.10	27	.27	-146



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