

RF AMPLIFIER

MODEL *TM9107*

Available as: TM9107, 4 Pin TO-8 (T4)
 TN9107, 4 Pin Surface Mount (SM3)
 FP9107, 4 Pin Flatpack (FP4)
 BX9107, Connectorized Housing (H1)

Features

- n Low +5 Volt Supply
- n Output Power: +13 dBm Typical
- n Operating Temp. - 55 °C to +85 °C
- n Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 1200 MHz	5 - 1000 MHz
Gain (dB)	13.5	11.5 Min.
Power @ 1 dB Comp. (dBm)	+13	+10 Min.
Reverse Isolation (dB)	-15	-14 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.7:1	2.0:1 Max.
Noise Figure (dB)	<3.9	5.0 Max.
Power Vdc	+5	+5
mA	33	36 Max.

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

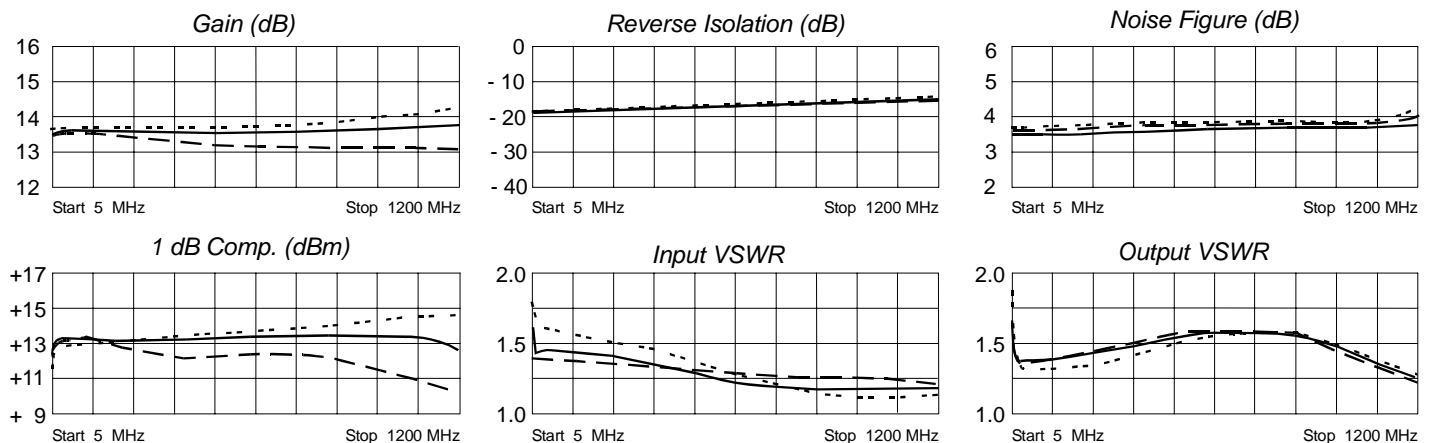
Typical Intermodulation Performance at 25 °C

- Second Order Harmonic Intercept Point.....+32 dBm (Typ.)
- Second Order Two Tone Intercept Point.....+26 dBm (Typ.)
- Third Order Two Tone Intercept Point.....+22 dBm (Typ.)

Maximum Ratings

- Ambient Operating Temperature -55°C to + 100 °C
- Storage Temperature -62°C to + 125 °C
- Case Temperature + 125 °C
- DC Voltage + 10 Volts
- Continuous RF Input Power + 13 dBm
- Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
- Maximum Peak Power 0.5 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
5	.22	-139	4.82	-168	.12	13	.22	148
10	.18	-158	4.83	-175	.12	6	.18	158
50	.18	-179	4.90	174	.12	1	.16	159
100	.18	175	4.89	166	.12	-2	.16	146
200	.17	162	4.88	151	.13	-4	.17	118
400	.13	152	4.81	122	.13	-11	.21	73
600	.09	151	4.80	92	.14	-20	.23	34
800	.07	177	4.77	63	.15	-29	.22	-1
1000	.10	-173	4.81	32	.16	-41	.17	-36
1200	.11	179	4.87	-2	.17	-54	.08	-65



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 07/08/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001