

RF AMPLIFIER

MODEL *TM3080*

Available as: TM3080, 4 Pin TO-8 (T4)
 TN3080, 4 Pin Surface Mount (SM3)
 BX3080, SMA Connectorized Laser Seal Housing (H1L)

Features

- Low +5 Volt Supply
- Wide 10 - 3000 MHz Bandwidth
- Environmental Screening Available

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +47 dBm (Typ.)
 Second Order Two Tone Intercept Point +42 dBm (Typ.)
 Third Order Two Tone Intercept Point +34 dBm (Typ.)

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 3000 MHz	10 - 3000 MHz
Gain (dB)	21	19 Min.
Power @ 1 dB Comp. (dBm)	+18	+17 Min
Reverse Isolation (dB)	-30	-28 Max.
VSWR In	1.8:1	2.0:1 Max
VSWR Out	1.8:1	2.0:1 Max.
Noise Figure (dB)*	3.0	4.0 Max.
Power Vdc	+5	+5
mA	125	130 Max.

Absolute Maximum (No Damage) Ratings

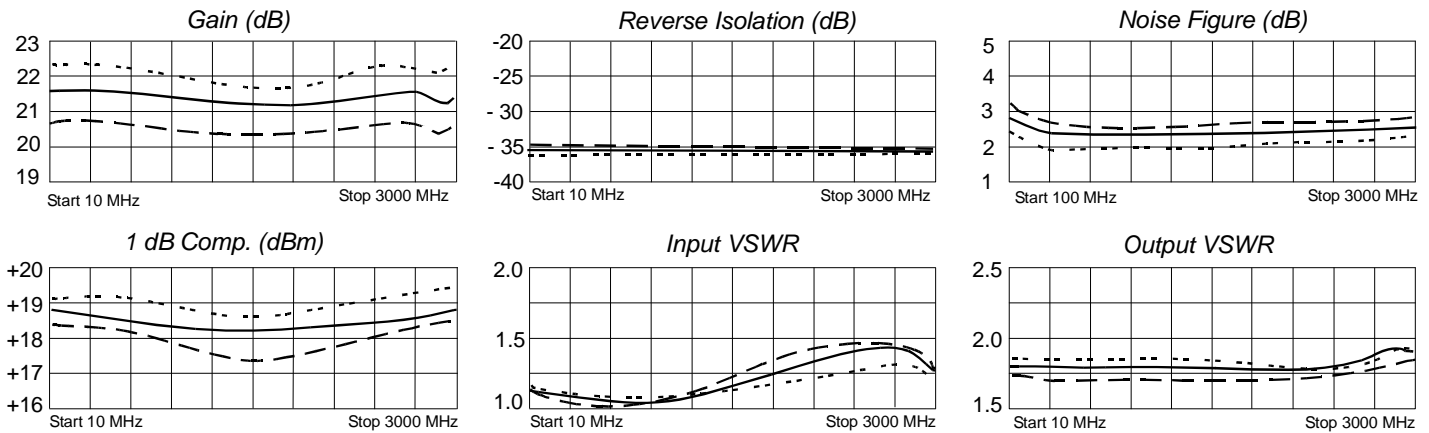
Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -69°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +8 Volts
 Continuous RF Input Power +13 dBm
 Short Term RF Input Power 20 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.2 Watt (3 µsec Max.)

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

* Noise Figure of 4.0 dB Max. measured from 100 to 3000 MHz.

Revision: 7/17/2012

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	0.07	-157	11.76	13	0.02	2	0.13	167
309	0.05	144	11.63	-65	0.02	-37	0.12	143
608	0.04	113	11.40	-127	0.02	-77	0.12	108
907	0.02	108	11.21	171	0.02	-116	0.12	72
1206	0.03	141	11.04	109	0.02	-155	0.12	32
1505	0.06	115	10.87	48	0.02	164	0.12	-13
1804	0.10	79	10.86	-14	0.02	121	0.12	-69
2103	0.12	39	11.00	-77	0.02	83	0.13	-132
2402	0.15	-2	11.30	-141	0.02	36	0.14	165
2701	0.17	-54	11.39	151	0.02	-10	0.15	111
3000	0.11	-111	11.25	84	0.02	-47	0.19	66



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

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