

# RF AMPLIFIER

## MODEL *TM3030*

Available as: TM3030, 4 Pin TO-8 (T4)  
 TN3030, 4 Pin Surface Mount (SM3)  
 FP3030, 4 Pin Flatpack (FP4)  
 BX3030, Connectorized Housing (H1)

### Features

- Output Power: +18 dBm Typical
- Gain: 14.75 dB Typical
- Operating Temp. - 55 °C to +85 °C
- Units are Unconditionally Stable

### Specifications

CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	500 - 1000 MHz	500 - 1000 MHz
Gain (dB)	14.75	14.0 Min.
Power @ 1 dB Comp. (dBm)	+18	+17 Min.
Reverse Isolation (dB)	-21.0	-20.0 Max.
VSWR In	<1.5:1	2.2:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<2.0	3.0 Max.
Power Vdc	+15	+15
mA	47	52 Max.

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

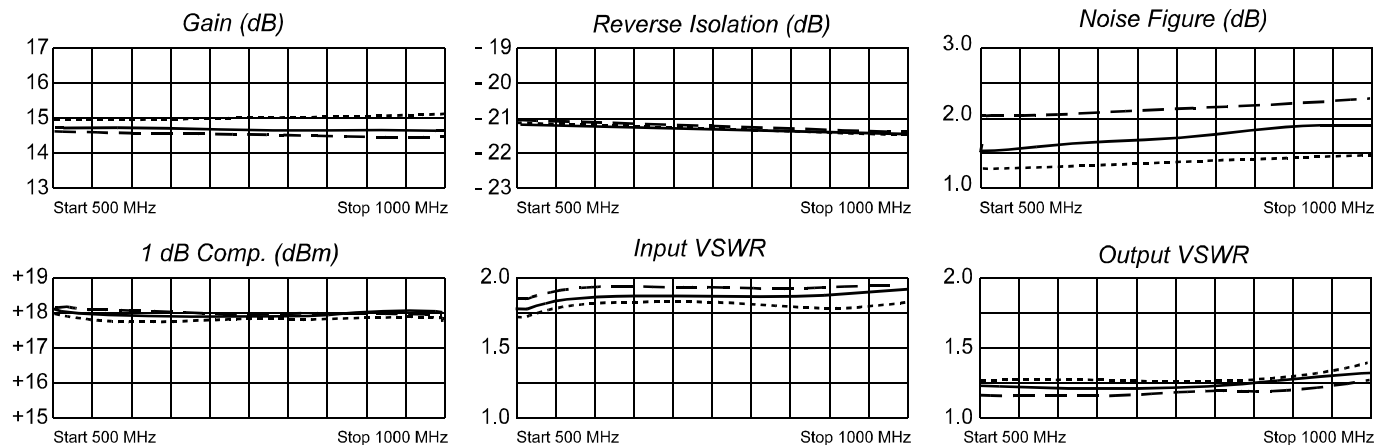
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +40 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +35 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +29 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 ..... +18 Volts  
 Continuous RF Input Power ..... +13 dBm  
 Short Term RF Input Power ..... 50 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
500	.11	-103	5.58	143	.0881	-14	.19	130
600	.10	-114	5.54	133	.0870	-19	.19	125
700	.10	-140	5.54	124	.0881	-24	.19	118
800	.12	-152	5.54	114	.0881	-28	.18	109
900	.14	-170	5.54	104	.0864	-31	.18	100
1000	.18	178	5.48	93	.0882	-36	.18	86



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532    Rev. 10/4/07

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