

# RF AMPLIFIER

## MODEL *TM3074*

Available as: TM3074, 4 Pin TO-8 (T4)  
 TN3074, 4 Pin Surface Mount (SM3)  
 FP3074, 4 Pin Flatpack (FP4)  
 BX3074, Connectorized Housing (H1)

### Features

- Low Noise Figure: 1.5 dB Typical
- Output Power: 17 dBm 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	1400 - 1800 MHz	1400 - 1800 MHz
Gain (dB)	16.0	15.0 Min.
Power @ 1 dB Comp. (dBm)	+17	+16 Min.
Reverse Isolation (dB)	-22	-21 Max.
VSWR In	<1.70:1	2.0:1 Max.
Out	<1.70:1	2.0:1 Max.
Noise Figure (dB)	1.5	2.5 Max.
Power Vdc	+5	+5
mA	63	70 Max.

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

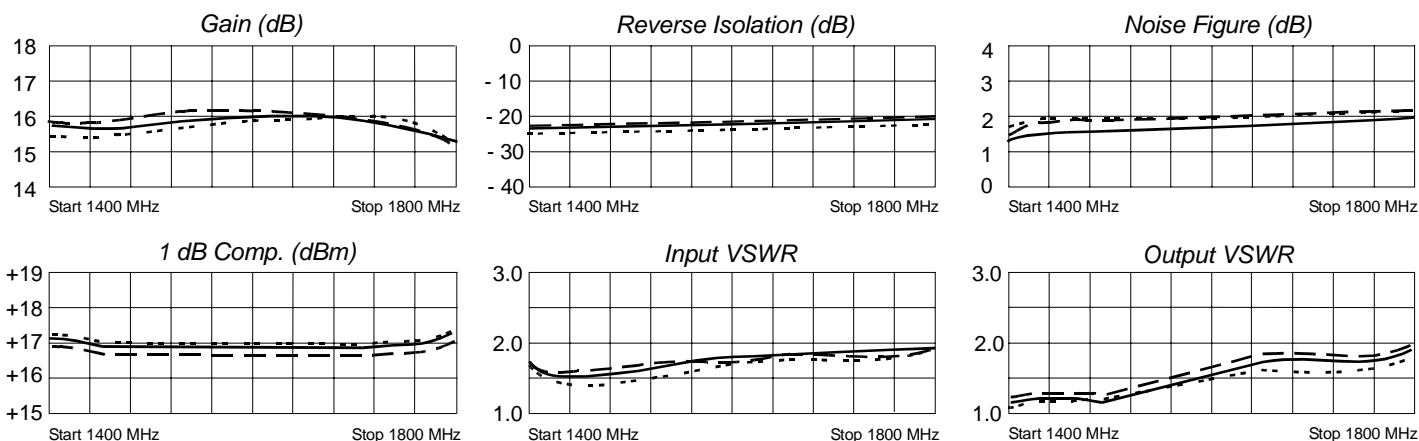
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+42 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+38 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+28 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 ..... + 8 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
1400	.24	53	6.38	-111	.0565	155	.08	12
1500	.21	33	6.34	-139	.0608	132	.10	-10
1600	.15	14	6.38	-167	.0649	107	.13	-40
1700	.08	5	6.42	163	.0696	83	.14	-76
1800	.05	98	6.22	132	.0762	57	.16	-117



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