

# RF AMPLIFIER

## MODEL *TM3001*

Available as: TM3001, 4 Pin TO-8 (T4)  
 TN3001, 4 Pin Surface Mount (SM3)  
 FP3001, 4 Pin Flatpack (FP4)  
 BX3001, Connectorized Housing (H1)

### Features

- Low 5 Volt Operation
- Output Power: +10 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	400 - 1200 MHz	400 - 1200 MHz
Gain (dB)	15	14 Min.
Power @ 1 dB Comp. (dBm)	+10	+8.5 Min.
Reverse Isolation (dB)	-16.5	-16 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	3.0	4.0 Max.
Power Vdc	+5	+5
mA	19	25 Max.

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

### Typical Intermodulation Performance at 25 ° C

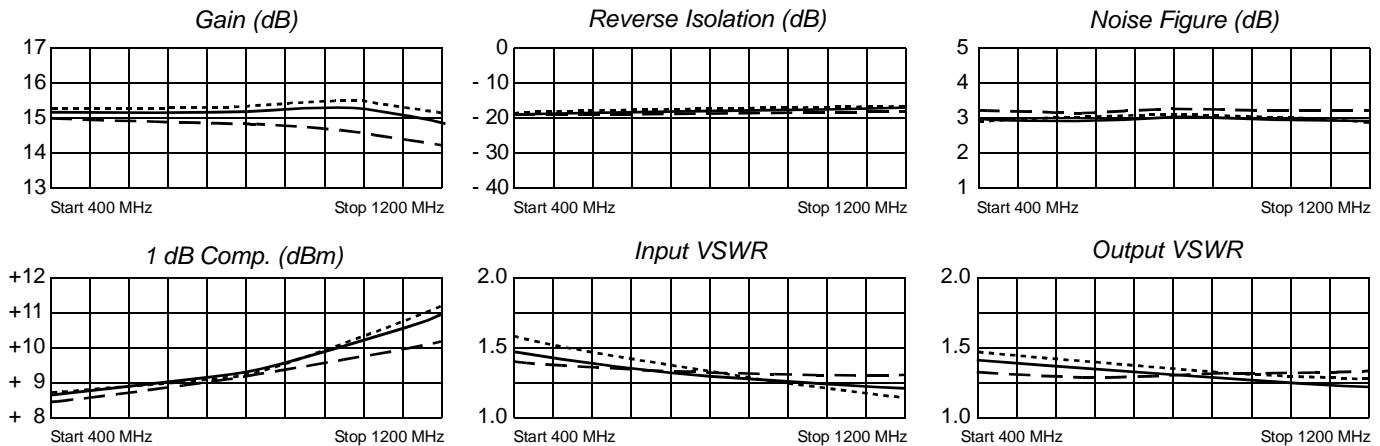
Second Order Harmonic Intercept Point ..... +35 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +30 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +21 dBm (Typ.)

### 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.)

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

### Typical Performance Data



### Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
400	.17	170	5.82	128	.11	-2	.13	102
500	.16	169	5.77	115	.11	-4	.13	82
600	.15	172	5.76	102	.12	-6	.13	62
700	.15	176	5.72	89	.12	-8	.12	44
800	.14	177	5.68	75	.13	-11	.11	27
900	.14	180	5.68	61	.13	-14	.11	7
1000	.14	179	5.60	47	.14	-17	.10	-11
1100	.14	180	5.52	32	.14	-21	.09	-25
1200	.14	175	5.36	17	.15	-24	.08	-33



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