

# RF AMPLIFIER

## MODEL *TM5150*

Available as: TM5150, 4 Pin TO-8 (T4)  
 TN5150, 4 Pin Surface Mount (SM3)  
 FP5150, 4 Pin Flatpack (FP4)  
 BX5150, Connectorized Housing (H1)

### Features

- Low Noise Figure: 2.5 dB Typical
- Output Power: +18 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	10-300 MHz	10-300 MHz
Gain (dB)	20.0 ± 0.5	19.0 Min.
Power @ 1 dB Comp. (dBm)	+18	+17 Min.
Reverse Isolation (dB)	-23	-22 Max.
VSWR In	1.75:1	2.5:1 Max.
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	2.5	3.5 Max.
Power Vdc	+15	+15 Min.
mA	47	53 Max.

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

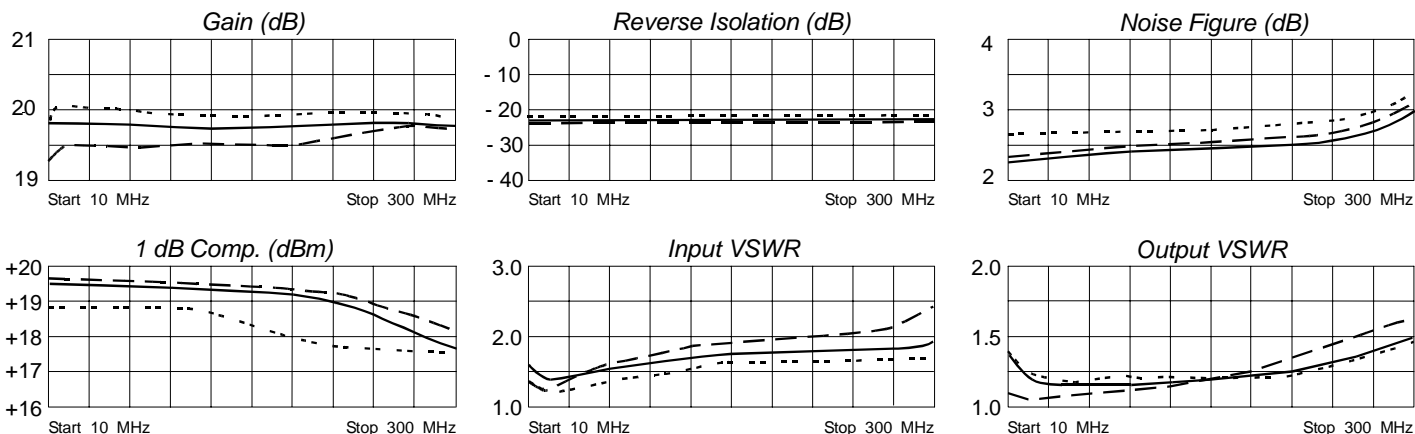
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+48 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+43 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+32 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 ..... + 18Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power ..... 50 Milliwatt (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
10	.23	- 44	9.95	-173	.07	-172	.16	- 76
50	.19	- 57	10.0	159	.07	158	.07	- 87
100	.24	- 94	9.90	136	.07	133	.07	- 79
200	.29	-162	9.76	90	.07	86	.09	- 77
300	.30	121	9.91	38	.07	37	.21	-108



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