

# RF AMPLIFIER

## MODEL *TM5544*

Available as: TM5544, 4 Pin TO-8 (T4)  
 TN5544, 4 Pin Surface Mount (SM3)  
 FP5544, 4 Pin Flatpack (FP4)  
 BX5544, Connectorized Housing (H1)

### Features

- +5 Volt Operation
- Low Noise Figure: 2.5 dB 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	10-500 MHz	10-500 MHz
Gain (dB)	12.5	11.0 Min.
Power @ 1 dB Comp. (dBm)	+14.5	+11.5 Min.
Reverse Isolation (dB)	-15.5	-14.5 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	2.5	3.5 Max.
Power Vdc	+5	+5 Min.
mA	35	42 Max.

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

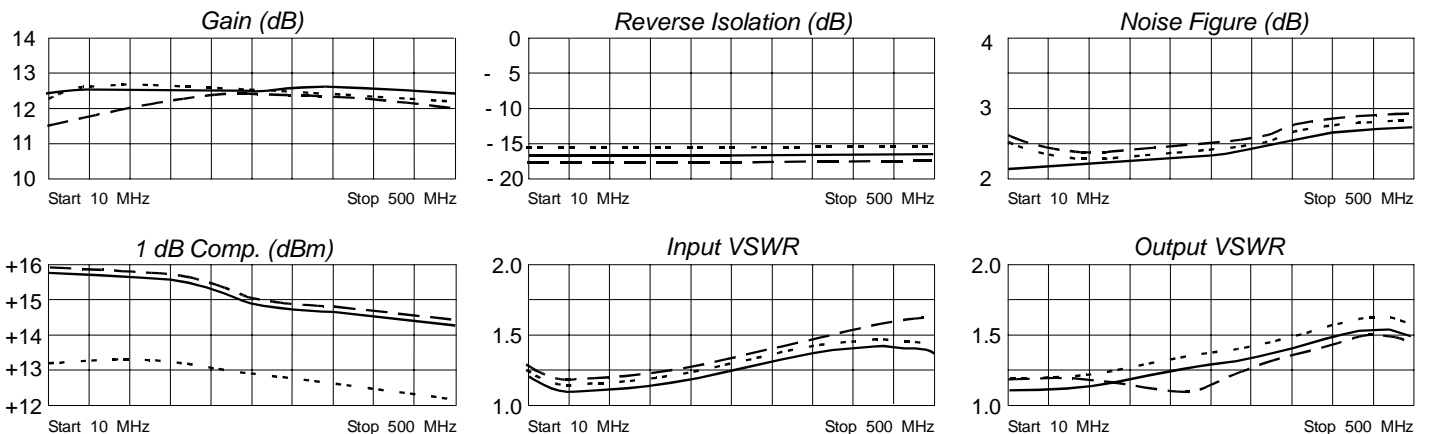
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +38 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +33 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +27 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
10	.04	-127	4.11	-172	.17	-171	.03	-119
50	.04	-154	4.15	171	.17	170	.01	-174
100	.05	-167	4.16	159	.17	158	.00	56
200	.08	169	4.21	135	.17	135	.07	-35
300	.11	152	4.23	112	.17	113	.14	-65
400	.14	135	4.25	86	.17	92	.20	-85
500	.15	131	4.15	59	.17	69	.22	-104



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