

# RF AMPLIFIER

## MODEL *TM6544*

Available as: TM6544, 4 Pin TO-8 (T4)  
 TN6544, 4 Pin Surface Mount (SM3)  
 FP6544, 4 Pin Flatpack (FP4)  
 BX6544, Connectorized Housing (H1)  
 PN6544, 4 Pin Surface Mount (SM11)

### Features

- Low Noise: 2 dB Typical
- High IP3 = +32 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 - 500 MHz	10 - 500 MHz
Gain (dB)	12	10.5 Min.
Power @ 1 dB Comp. (dBm)	+15	+13.0 Min.
Reverse Isolation (dB)	-15.5	-14.5 Max.
VSWR In	<1.35:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	2.0	3.5 Max.
Power Vdc	+15	+15
mA	35	38 Max.

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

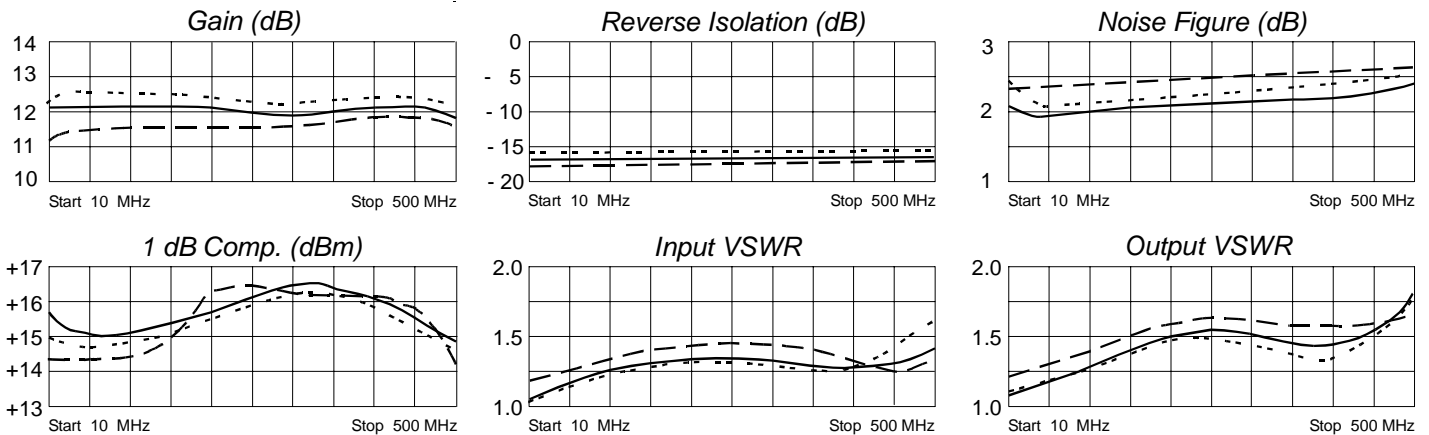
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +52 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +46 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 ..... + 18 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	.01	-33	4.01	-174	.16	-174	.01	-7
50	.04	63	4.03	168	.16	168	.06	70
100	.09	51	4.00	153	.16	153	.12	66
200	.15	14	3.96	126	.16	126	.20	50
300	.15	-30	3.95	99	.16	99	.21	40
400	.11	-103	4.02	69	.16	71	.19	52
500	.18	150	3.93	34	.16	40	.28	78



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