

# RF AMPLIFIER

## MODEL *TM5519*

Available as: TM5519, 4 Pin TO-8 (T4)  
 TN5519, 4 Pin Surface Mount (SM3)  
 FP5519, 4 Pin Flatpack (FP4)  
 BX5519, Connectorized Housing (H1)

### Features

- + 5 Volt Operation
- Low Noise Figure: 2.25 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	5-500 MHz	5-500 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+14.5	+11.5 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.9:1	2.2:1 Max.
Noise Figure (dB)	2.25	3.0 Max.
Power Vdc	+5	+5 Min.
mA	30	35 Max.

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

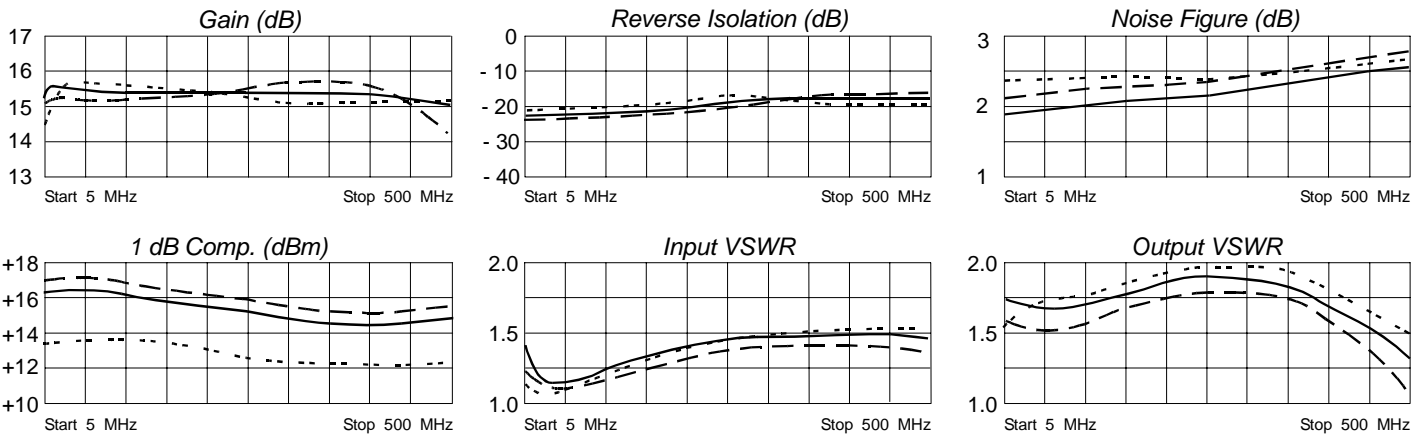
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +43 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +39 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +29 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 ..... + 18 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
5	.15	-57	5.84	-165	.09	-165	.28	-16
50	.08	-76	6.01	166	.09	161	.25	-30
100	.12	-105	5.92	150	.09	140	.26	-53
200	.18	-147	5.78	119	.10	105	.31	-92
300	.21	175	5.71	90	.11	76	.32	-122
400	.20	137	5.73	57	.12	49	.28	-146
500	.20	103	5.58	19	.13	24	.16	-163

