

# RF AMPLIFIER

## MODEL *TM6570*

**Available as:** TM6570, 4 Pin TO-8 (T4)  
 TN6570, 4 Pin Surface Mount (SM3)  
 FP6570, 4 Pin Flatpack (FP4)  
 PN6570, Reduced Size Surface Mount (SM11)  
 BX6570, Connectorized Housing (H1)

### Features

- Low Noise Figure: <2.5 dB Typical
- High Output Power: >+17.5 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)	8.0	7.0 Min.
Power @ 1 dB Comp. (dBm)	>+18	+17.5 Min.
Reverse Isolation (dB)	-11	-9.5 Max.
VSWR In	<1.85:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<2.5	3.0 Max.
Power Vdc	+15	+15
mA	35	40 Max.

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

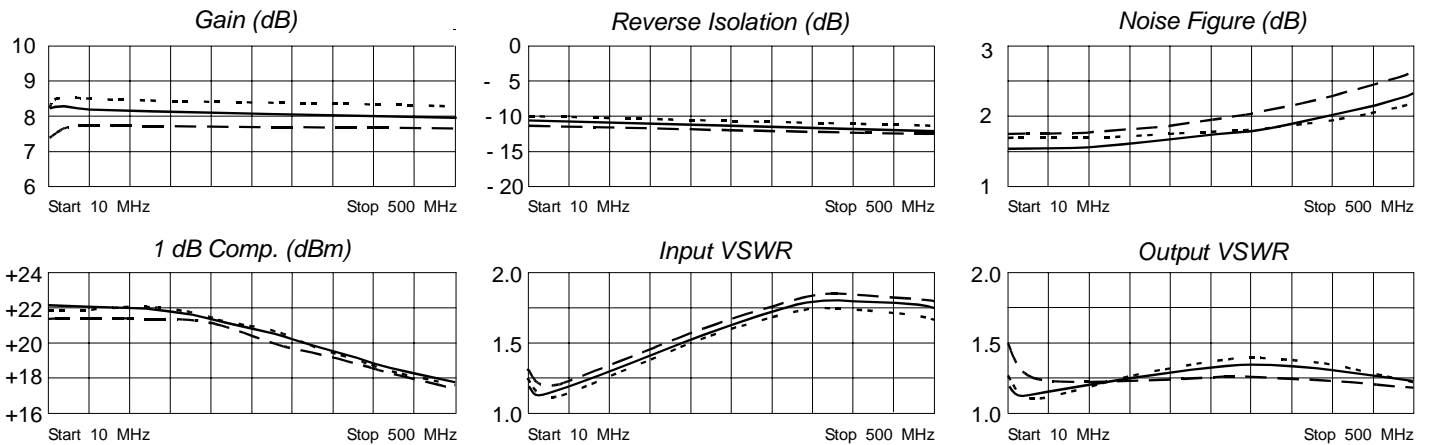
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +51 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +46 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +35 dBm (Typ.)

### Absolute Maximum (No Damage) 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 ..... +17 dBm  
 Short Term RF Input Power .... 100 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	.13	148	2.56	12	.29	12	.13	150
50	.09	-160	2.63	-12	.29	-12	.07	-175
100	.13	-151	2.62	-26	.29	-25	.08	-167
200	.20	-157	2.60	-52	.28	-52	.11	-170
300	.25	-176	2.59	-79	.27	-79	.13	176
400	.27	163	2.59	-106	.26	-107	.11	155
500	.26	141	2.58	-136	.25	-137	.07	148
600	.24	117	2.53	-167	.25	-170	.06	140



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