

# RF AMPLIFIER

## MODEL *TM7570*

Available as: TM7570, 4 Pin TO-8 (T4)  
 TN7570, 4 Pin Surface Mount (SM3)  
 FP7570, 4 Pin Flatpack (FP4)  
 BX7570, Connectorized Housing (H1)

### Features

- Low Noise Figure: 1.4 dB Typical
- High Efficiency: +15 dBm @ 15 mA 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	10-250 MHz	10-200 MHz
Gain (dB)	8.0	7.0 Min.
Power @ 1 dB Comp. (dBm)	+13* +15**	+11.0* Min. +13.0** Min.
Reverse Isolation (dB)	-10.5	-10.0 Max.
VSWR In	1.5:1	1.8:1 Max
Out	1.3:1	1.8:1 Max.
Noise Figure (dB)	1.4	2.2 Max.
Power Vdc	+5	+5 Min.
mA	15	18 Max.

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

### Typical Intermodulation Performance at 25 ° C

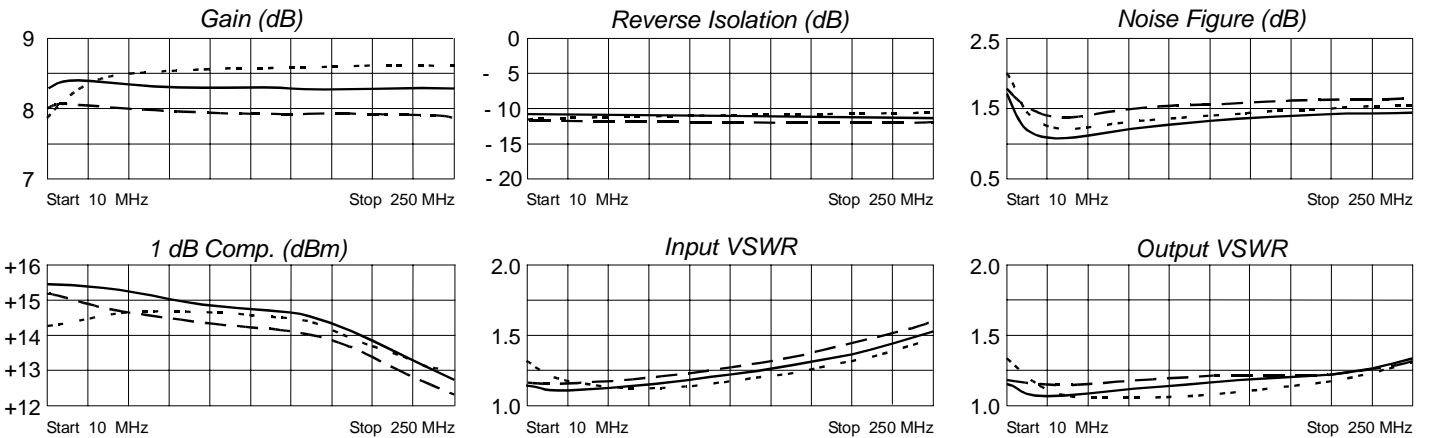
Second Order Harmonic Intercept Point..... +55 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +50 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +30 dBm (Typ.)

### 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.)

\* Frequency = 10-200 MHz  
 \*\* Frequency = 10-160

### 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	.25	172	2.76	5	.2538	5	.11	40
50	.22	174	2.85	-14	.2585	-13	.12	-14
100	.21	172	2.85	-30	.2549	-30	.12	-44
150	.20	171	2.89	-46	.2516	-46	.10	-71
200	.19	168	2.93	-63	.2430	-62	.09	-100
250	.18	166	2.97	-80	.2334	-80	.07	-127



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