

# RF AMPLIFIER

## MODEL *TM6575*

Available as: TM6575, 4 Pin TO-8 (T4)  
 TN6575, 4 Pin Surface Mount (SM3)  
 FP6575, 4 Pin Flatpack (FP4)  
 BX6575, Connectorized Housing (H1)

### Features

- High Gain: +21 dB Typical
- Low Noise: 2.7 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)	21	19 Min.
Power @ 1 dB Comp. (dBm)	+9.5	+8.5 Min.
Reverse Isolation (dB)	-23	-21 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	2.7	3.5 Max.
Power Vdc	+15	+15
mA	23	27 Max.

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

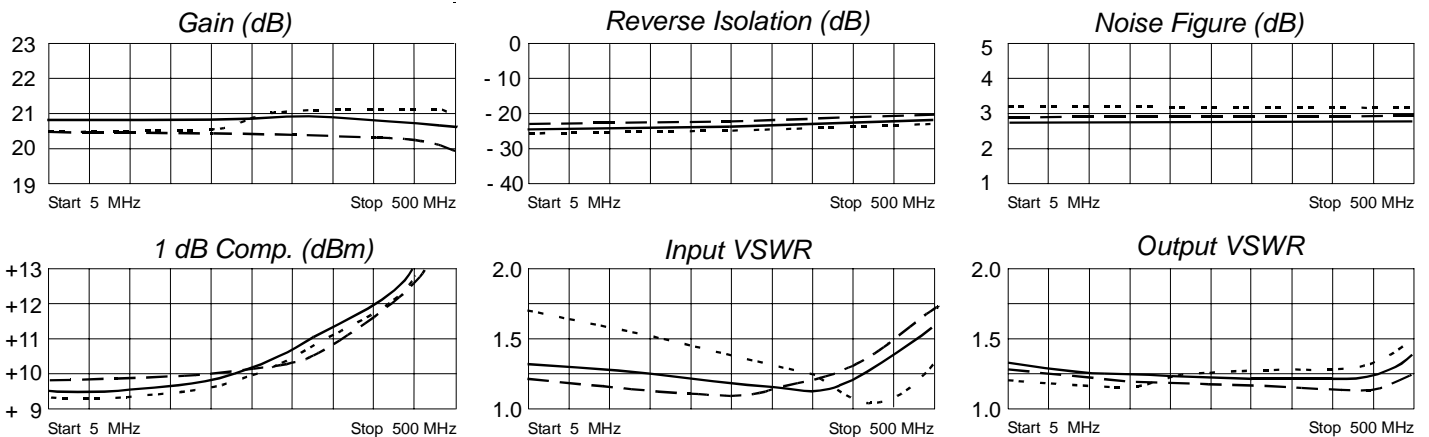
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +33 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +28 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +21 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
5	.16	-174	10.41	-177	.05	5	.14	-174
50	.15	163	10.37	168	.05	1	.13	167
100	.14	145	10.35	155	.05	1	.12	152
200	.11	108	10.36	129	.06	1	.11	122
300	.06	46	10.43	103	.06	0	.09	95
400	.09	-69	10.57	73	.07	-3	.11	74
500	.23	-129	10.17	38	.08	-9	.18	41



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 11/15/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001