

# RF AMPLIFIER

## MODEL *TM7380*

Available as: TM7380, 4 Pin TO-8 (T4)  
 TN7380, 4 Pin Surface Mount (SM3)  
 FP7380, 4 Pin Flatpack (FP4)  
 BX7380, Connectorized Housing (H1)

### Features

- High Gain: 27.5 dB Typical
- Low Noise: 2.2 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 - 200 MHz	10 - 200 MHz
Gain (dB)	27.5	26.0 Min.
Power @ 1 dB Comp. (dBm)	+17.0	+15.0 Min.
Reverse Isolation (dB)	-32	-31 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	2.2	3.0 Max.
Power Vdc	+15	+15 Min.
mA	28	32 Max.

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

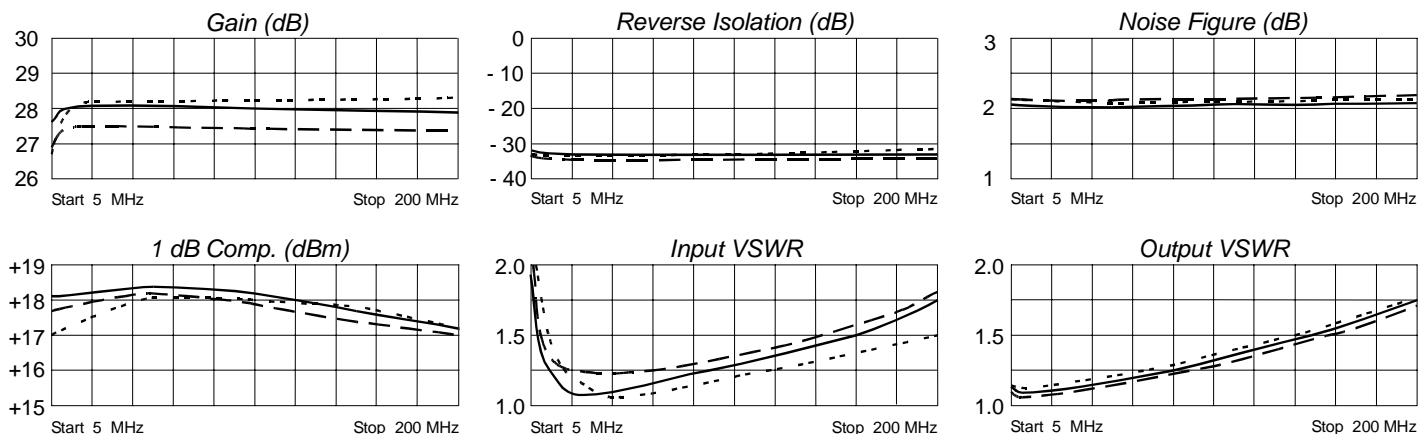
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +40 dBm (Typ.)  
 Second Order Two Tone Intercept Point..... +35 dBm (Typ.)  
 Third Order Two Tone Intercept Point..... +31 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	.31	- 87	24.07	-156	.03	- 4	.12	- 89
10	.17	-113	25.12	-172	.02	- 4	.10	-131
50	.08	140	25.31	156	.02	- 7	.08	-165
100	.12	83	25.12	128	.02	-12	.08	-152
150	.18	43	25.05	100	.02	-23	.13	-138
200	.26	9	25.03	72	.02	-33	.21	-145
250	.35	- 25	25.22	42	.02	-48	.28	-158



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