

# RF AMPLIFIER

## MODEL *TM6212*

Available as: TM6212, 4 Pin TO-8 (T4)  
 TN6212, 4 Pin Surface Mount (SM3)  
 FP6212, 4 Pin Flatpack (FP4)  
 BX6212, Connectorized Housing (H1)  
 PN6212, Reduced Size Surface Mount (SM11)

### Features

- 10 MHz to 1300 MHz: 10 dB Typical Gain
- High Power: +22.5 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 - 1300 MHz	10 - 1300 MHz
Gain (dB)	10	8.5 Min.
Power @ 1 dB Comp. (dBm)	+22.5	+19.5 Min.
Reverse Isolation (dB)	-16	-15 Max.
VSWR In	1.6:1	2.0:1 Max.
Out	1.4:1	2.0:1 Max.
Noise figure (dB)	<6.0*	8.5* Max.
Power Vdc	+15	+15
mA	92	100 Max.

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

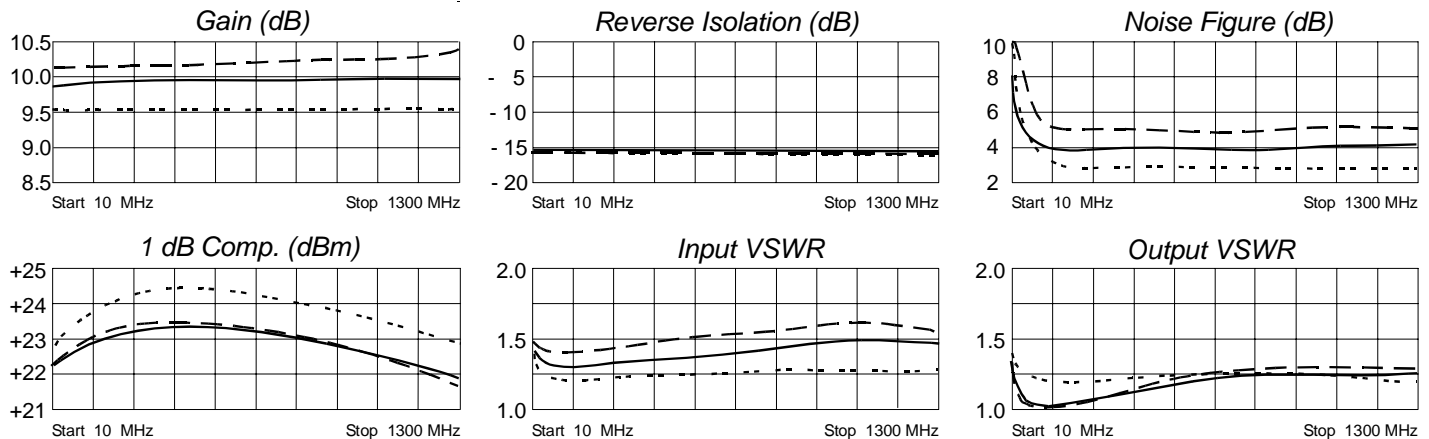
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +48 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +42 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +34 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 ..... + 18 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
10	.19	- 37	3.18	-166	.14	11	.14	111
100	.13	- 20	3.24	175	.15	- 3	.01	158
300	.14	- 44	3.24	160	.15	- 14	.03	-117
500	.16	- 65	3.24	147	.15	- 23	.06	-114
700	.17	- 83	3.24	133	.14	- 34	.08	-118
900	.19	- 98	3.23	119	.14	- 43	.09	-118
1000	.19	-103	3.23	112	.14	- 48	.10	-116
1100	.20	-110	3.26	105	.14	- 53	.11	-115
1200	.20	-116	3.29	98	.14	- 58	.12	-118
1300	.20	-122	3.31	91	.14	- 63	.12	-120



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