

# RF AMPLIFIER

## MODEL *TM6610*

Available as: TM6610, 4 Pin TO-8 (T4)  
 TN6610, 4 Pin Surface Mount (SM3)  
 BX6610, Connectorized Housing (H1)

### Features

- Low Noise Figure: 2.1 dB Typical
- Higher Output Power: +20 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 - 300 MHz	10 - 250 MHz
Gain (dB)	8.0	6.0 Min.
Power @ 1 dB Comp. (dBm)	>+20	+18.0 Min
Reverse Isolation (dB)	-11	-10 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise figure (dB)	2.1	3.0 Max.
Power Vdc	+10	+10
mA	28	32 Max.

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

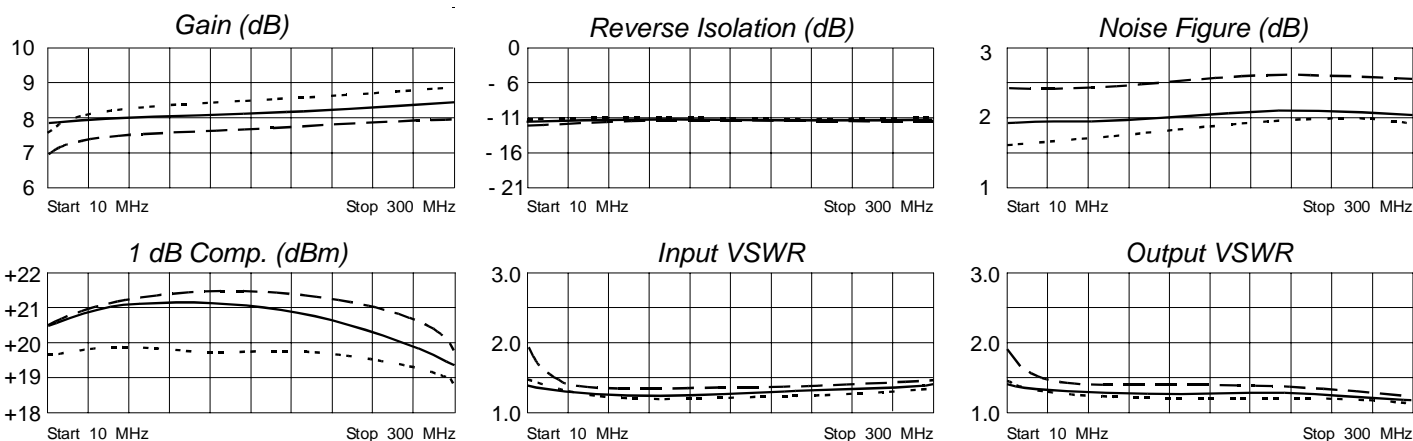
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +50 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +44 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +36 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 ..... + 12 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
10	.15	154	2.47	5	.28	5	.14	149
20	.11	157	2.53	-2	.28	-2	.10	148
50	.10	159	2.55	-15	.28	-15	.10	138
100	.09	156	2.54	-32	.28	-33	.10	113
150	.08	153	2.54	-49	.28	-49	.11	89
200	.08	155	2.56	-65	.27	-66	.11	67
250	.08	156	2.59	-82	.26	-84	.10	50
300	.11	149	2.61	-100	.26	-102	.08	37

