

# RF AMPLIFIER

## MODEL *TM6609*

Available as: TM6609, 4 Pin TO-8 (T4)  
 TN6609, 4 Pin Surface Mount (SM3)  
 FP6609, 4 Pin Flatpack (FP4)  
 BX6609, Connectorized Housing (H1)

### Features

- High Output Power: +22 dBm Typical
- 24 Volt Operation

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +52 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +46 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +36 dBm (Typ.)

### Specifications

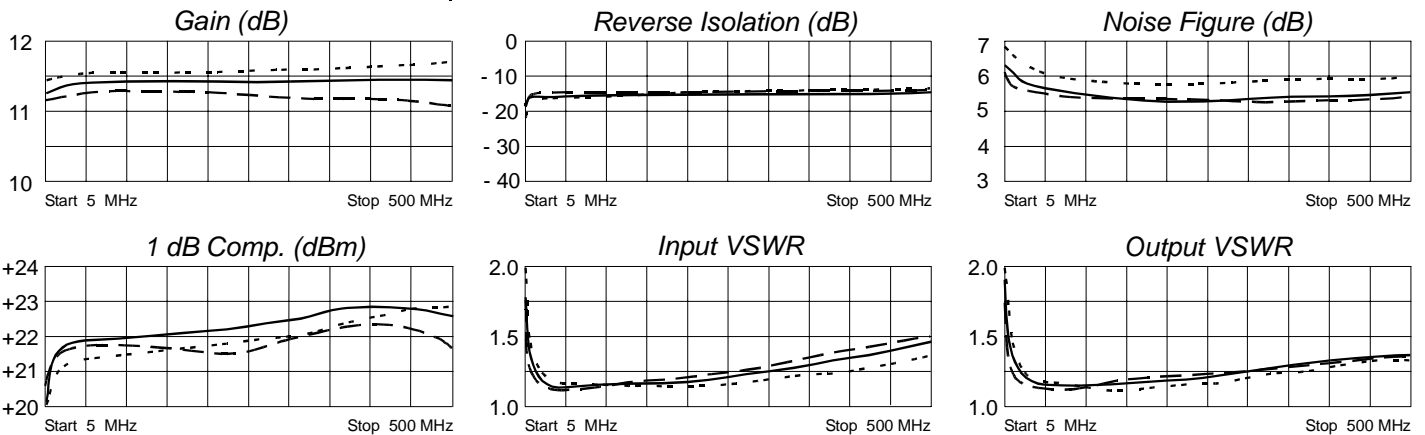
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	11.5	10.0 Min.
Power @ 1 dB Comp. (dBm)	+22	+20.0 Min.
Reverse Isolation (dB)	-15	-14 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	5.5	7.0 Max.
Power Vdc	+24	+24
mA	88	95 Max.

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

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 27 Volts  
 Continuous RF Input Power ..... + 18 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	- 51	3.70	-154	.12	32	.39	113
50	.05	-112	3.65	175	.16	2	.07	110
100	.06	-121	3.66	166	.16	- 1	.07	102
200	.08	-121	3.66	149	.16	- 2	.09	81
300	.11	-127	3.65	133	.17	- 5	.11	71
400	.15	-134	3.67	117	.17	- 8	.14	59
500	.19	-142	3.66	101	.17	-12	.16	49



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