

# RF AMPLIFIER

## MODEL *TM6160*

Available as: TM6160, 4 Pin TO-8 (T4)  
 TN6160-3, 4 Pin Surface Mount (SM3)  
 FP6160-4, 4 Pin Flatpack (FP4)  
 BX6160, Connectorized Housing (H1)

### Features

- High Gain: 28 dB Typical
- Low Noise Figure: <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	100-600 MHz	100-600 MHz
Gain (dB)	28	26 Min.
Power @ 1 dB Comp. (dBm)	+17	+16 Min.
Reverse Isolation (dB)	- 43	- 40 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<2	3.0 Max.
Power Vdc	+15	+15 Max.
mA	65	75 Max.

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

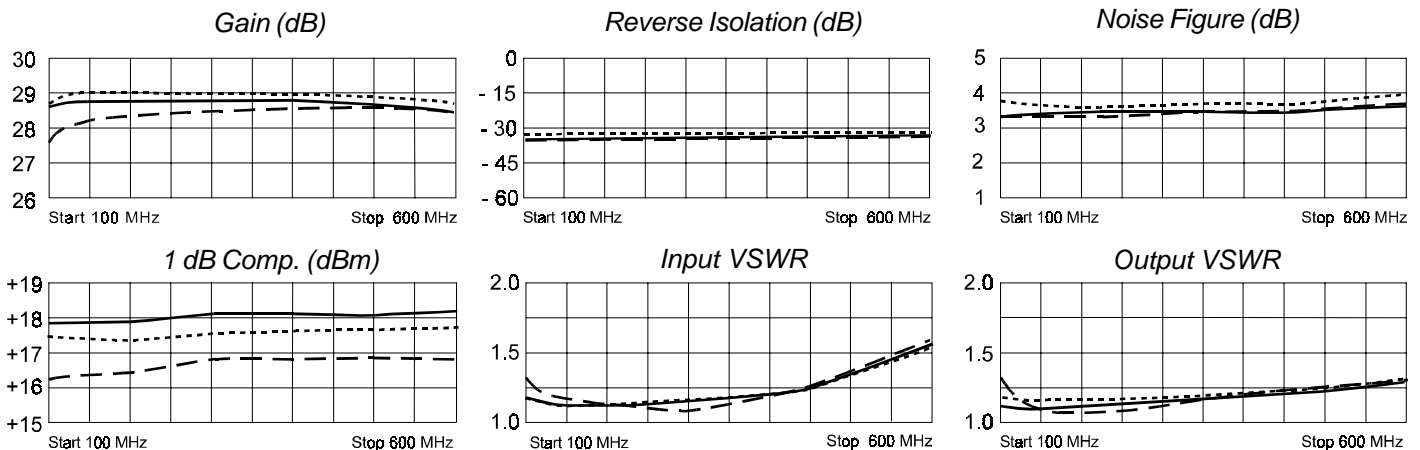
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +51 (Typ.)  
 Second Order Two Tone Intercept Point ..... +46 (Typ.)  
 Third Order Two Tone Intercept Point ..... +32 (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 ..... +10 dBm  
 Short Term RF Input Power ..... 20 Milliwatts  
 ..... (1 Minute Max.)  
 Maximum Peak Power ..... 0.1 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
50	.12	-168	25.49	-17	.01	-16	.13	-17
100	.16	-158	25.77	-48	.01	-51	.16	-50
200	.21	-175	25.09	-103	.01	-105	.20	-94
300	.16	175	24.57	-156	.01	-159	.22	-121
400	.15	-159	24.23	150	.01	162	.22	-145
500	.25	-176	24.57	93	.01	127	.17	-166
600	.31	115	25.28	28	.01	75	.08	-161



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