

# RF AMPLIFIER

## MODEL *TM9359*

Available as: TM9359, 4 Pin TO-8 (T4)  
 TN9359, 4 Pin Surface Mount (SM3)  
 FP9359, 4 Pin Flatpack (FP4)  
 BX9359, Connectorized Housing (H1)  
 PN9359, Reduced Size Surface Mount (SM11)

### Features

- GaAs FET Amplifier; Medium Gain: 13.5 dB Typ.
- High Output Power: +27 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	5 - 1100 MHz	10 - 1000 MHz
Gain (dB)	13.5	12.0 Min.
Power @ 1 dB Comp. (dBm)	+27	+25.5 Min.
Reverse Isolation (dB)	-18	-17.0 Max.
VSWR In	<1.5:1	1.9:1 Max.
Out	<1.7:1	2.0:1 Max.
Noise figure (dB)	5.0	7.5 Max.
Power Vdc	+15	+15
mA	175	185 Max.

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

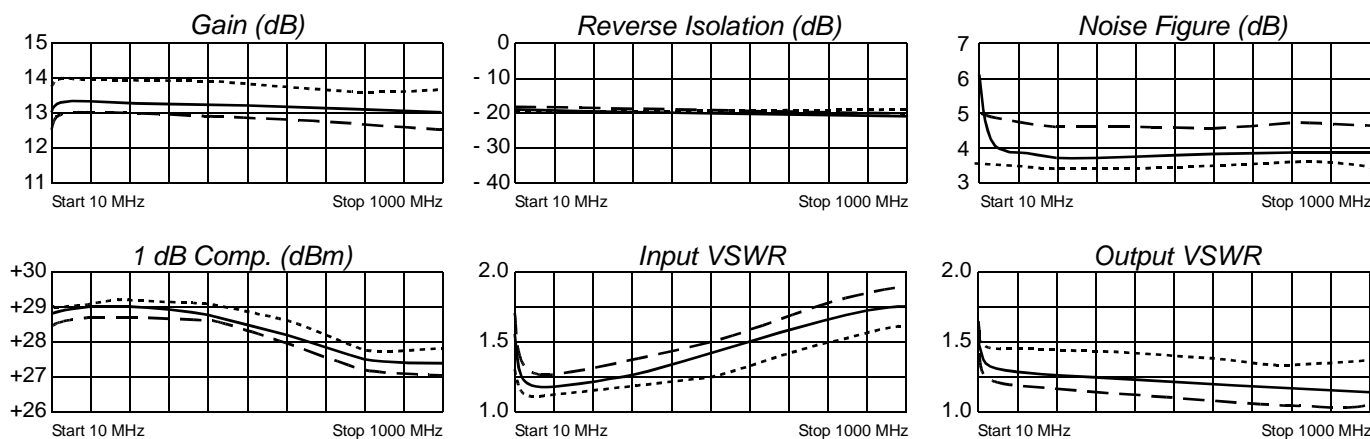
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point .....+48 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +43 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +40 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 ..... + 17 Volts  
 Continuous RF Input Power ..... + 18 dBm  
 Short Term RF Input Power ....150 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.3 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	.21	- 57	4.51	-161	.106	11	.20	139
50	.09	- 41	4.69	179	.108	0	.13	166
100	.08	- 42	4.69	172	.109	- 2	.12	164
200	.10	- 56	4.70	161	.110	- 8	.11	159
400	.13	- 80	4.65	140	.108	- 17	.09	147
600	.19	-100	4.56	120	.104	- 27	.08	135
800	.23	-121	4.48	101	.100	- 35	.07	115
1000	.29	-139	4.47	83	.097	- 34	.04	79



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