

# RF AMPLIFIER

## MODEL *TM9111*

Available as: TM9111, 4 Pin TO-8 (T4)  
 TN9111, 4 Pin Surface Mount (SM3)  
 FP9111, 4 Pin Flatpack (FP4)  
 BX9111, Connectorized Housing (H1)

### Features

- Low Noise Figure: 2.4 dB Typical
- Low VSWR: <1.25:1 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 - 1000 MHz	5 - 1000 MHz
Gain (dB)	15	14.0 Min.
Power @ 1 dB Comp. (dBm)	+1	-2.0 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	2.4	4.0 Max.
Power Vdc	+15	+15
mA	9	12 Max.

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

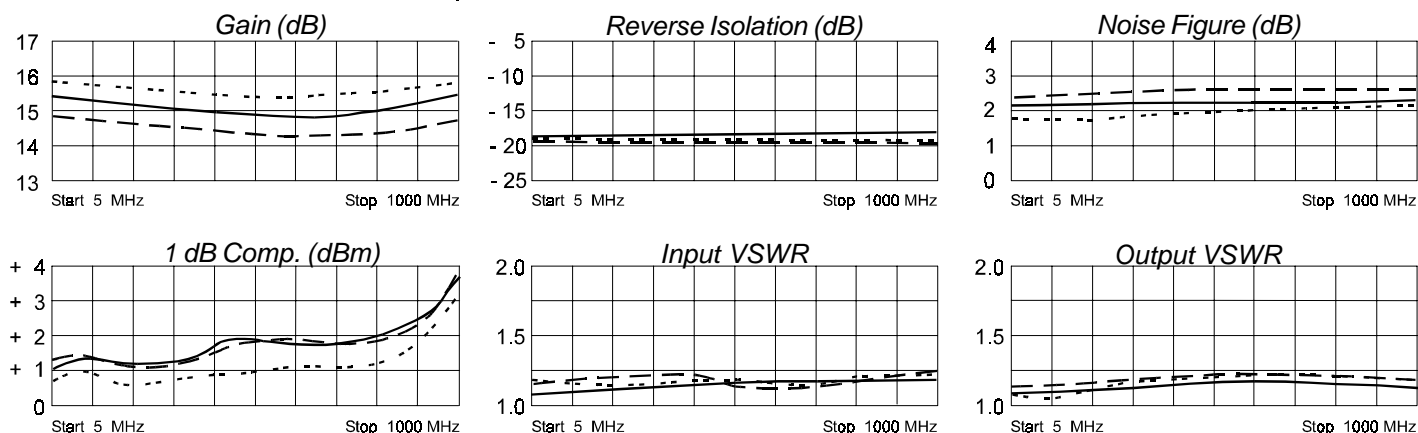
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +20 (Typ.)  
 Second Order Two Tone Intercept Point ..... +15 (Typ.)  
 Third Order Two Tone Intercept Point ..... +12 (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 ..... + 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
5	.03	-11	5.89	-178	.11	3	.03	-23
100	.04	21	5.82	165	.11	-2	.04	12
200	.05	22	5.76	150	.11	-6	.04	7
400	.07	14	5.61	121	.11	-12	.07	-19
600	.08	-4	5.50	82	.11	-19	.08	-55
800	.08	-37	5.60	63	.11	-27	.07	-94
1000	.11	-97	5.94	30	.12	-36	.05	-131

# Amplifonix

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