

# RF AMPLIFIER

## MODEL *TM9115*

Available as: TM9115, 4 Pin TO-8 (T4)  
 TN9115, 4 Pin Surface Mount (SM3)  
 FP9115, 4 Pin Flatpack (FP4)  
 BX9115, Connectorized Housing (H1)

### Features

- Medium Gain: 14.5 dB Typical
- Medium Output Power: +9.5 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 - 1000 MHz	5 - 1000 MHz
Gain (dB)	14.5	13.0 Min.
Power @ 1 dB Comp. (dBm)	+9.5	+8.0 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<4.0	5.5 Max.
Power Vdc	+15	+15
mA	24	27 Max.

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

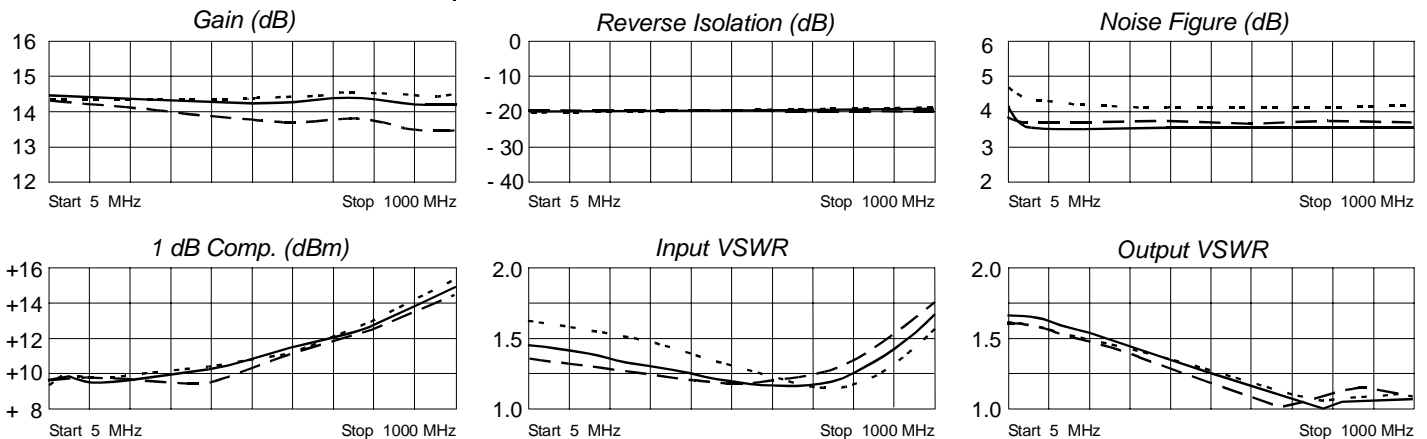
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+38 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+32 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+23 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 ..... + 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	.18	-172	5.29	-177	.10	4	.24	-172
10	.18	-177	5.29	-180	.10	2	.24	-177
50	.17	174	5.28	172	.10	-1	.23	174
100	.17	168	5.27	163	.10	-2	.23	166
200	.16	156	5.22	146	.10	-3	.21	152
400	.11	138	5.16	112	.10	-8	.15	126
600	.07	153	5.16	79	.11	-15	.08	101
800	.11	178	5.16	42	.12	-24	.01	143
1000	.26	160	5.09	3	.13	-36	.04	83



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