

# RF AMPLIFIER

## MODEL *TM9566*

Available as: TM9566, 4 Pin TO-8 (T4)  
 TN9566, 4 Pin Surface Mount (SM3)  
 FP9566, 4 Pin Flatpack (FP4)  
 BX9566, Connectorized Housing (H1)

### Features

- Low Noise Figure: <3 dB Typical
- High Gain: +26 dBm Typical
- Low +5 Volt Supply
- Environmental Screening Available

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+26 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+21 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+12 dBm (Typ.)

### Specifications

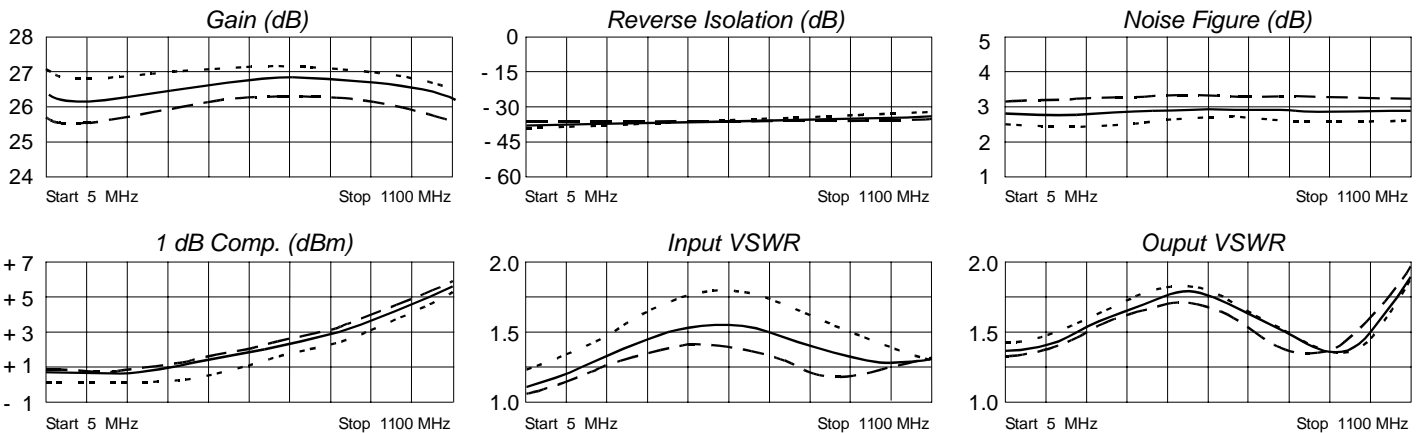
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 1100 MHz	10 - 1000 MHz
Gain (dB)	26	24.5 Min.
Power @ 1 dB Comp. (dBm)	+0.5	-0.5 Min.
Reverse Isolation (dB)	-35	-34 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	<3.0	4.0 Max.
Power Vdc	+5	+5
mA	18	20 Max.

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 10 Volts  
 Continuous RF Input Power ..... + 20 dBm  
 Short Term RF Input Power .... 200 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

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

### 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	-38	21.05	4	.02	8	.21	-174
10	.04	-30	20.93	-0	.01	-1	.21	-175
50	.04	-67	20.48	-13	.01	3	.21	-176
100	.07	-83	20.67	-26	.01	-11	.22	-176
200	.13	-124	20.92	-52	.01	7	.24	-180
400	.19	-169	21.86	-105	.01	4	.29	-165
600	.20	138	22.11	-162	.02	-1	.28	-139
800	.14	62	22.13	139	.02	-1	.17	126
1000	.11	-44	21.70	75	.02	-25	.20	177
1200	.15	-144	18.54	-2	.02	2	.44	143



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 4/14/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001