

# **RF AMPLIFIER**

## **MODEL TM9566**

**Available as:** TM9566, 4 Pin TO-8 (T4)  
TN9566-3, 4 Pin Surface Mount (SM3)  
FP9566-4, 4Pin Flatpack (FP4)  
BX9566, Connectorized Housing (H1)

## Features

- High Gain: 26 dB Typical
  - Low Noise Figure: <3dB Typical
  - Low 5 Volt Bias

## Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C	
Frequency	5 - 1100 MHz	10 - 1000	MHz Min.
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.

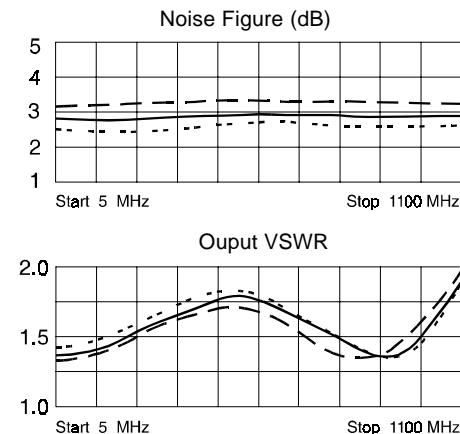
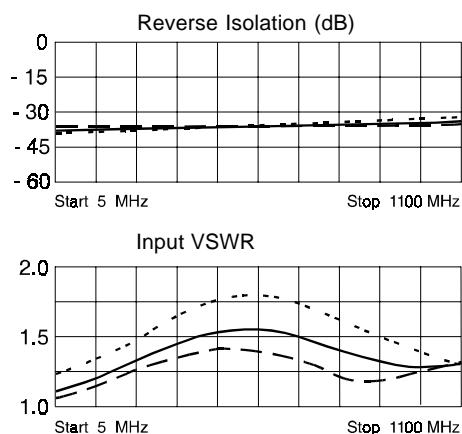
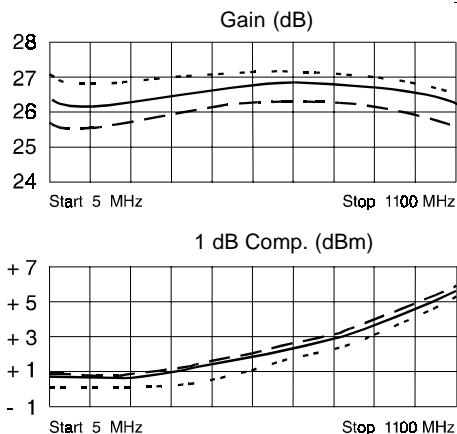
Note: Care should always be taken to effectively ground the case of each unit.

### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +26 (Typ.)  
 Second Order Two Tone Intercept Point ..... +21 (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 .....	+ 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 $\mu$ sec Max.)



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	-87	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	-168	21.86	-105	.01	4	.29	165
800	.20	138	22.11	-162	.02	-1	.28	139
1600	.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

# Amplifonix

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