

# RF AMPLIFIER

## MODEL *TM9700*

Available as: TM9700, 4 Pin TO-8 (T4)  
 TN9700, 4 Pin Surface Mount (SM3)  
 FP9700, 4 Pin Flatpack (FP4)  
 BX9700, Connectorized Housing (H1)  
 PN9700, Reduced Size Surface Mount (SM11)

### Features

- GaAs FET; Low Noise Figure: 2.5 dB Typical
- High Output Power: +19 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	200 - 2000 MHz	200 - 2000 MHz
Gain (dB)	12	10.5 Min.
Power @ 1 dB Comp. (dBm)	+19	+18 Min.
Reverse Isolation (dB)	-21	-20.0 Max.
VSWR In	<2.0:1	2.2:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	2.5	4.0 Max.
Power Vdc	+6	+6
mA	65	72 Max.

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

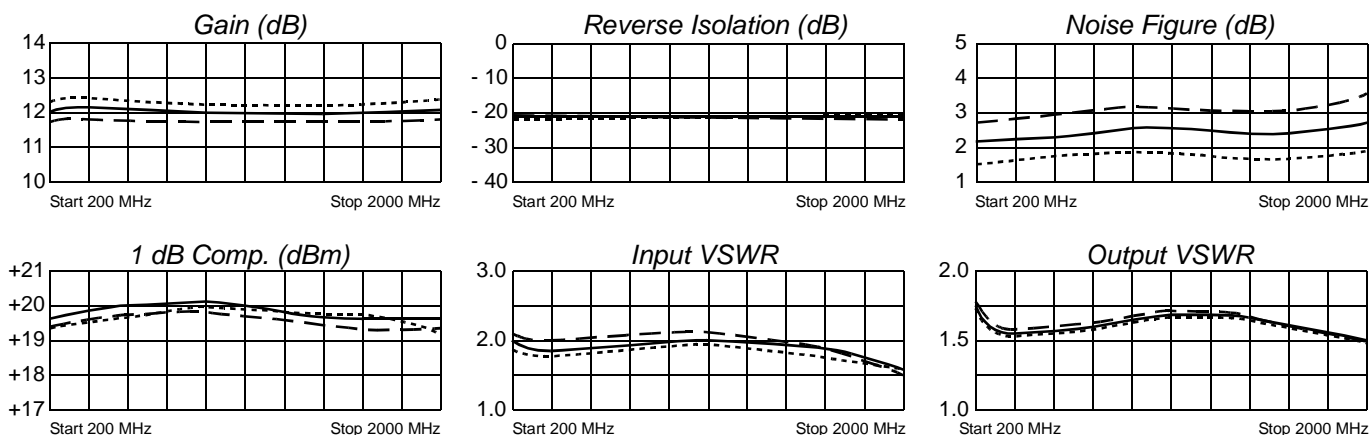
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+49 dBm (Typ.)  
 Second Order Two Tone Intercept Point.....+43 dBm (Typ.)  
 Third Order Two Tone Intercept Point.....+33 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 ..... +9 Volts  
 Continuous RF Input Power ..... + 13 dBm  
 Short Term RF Input Power. ....50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.1 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.
200	.33	47	3.96	-179	.084	10	.26	83
400	.29	67	4.00	158	.092	- 4	.21	51
600	.29	79	3.90	141	.089	- 13	.22	34
800	.29	95	3.85	125	.088	- 19	.25	16
1000	.28	-112	3.79	111	.088	- 28	.25	- 1
1200	.29	-122	3.70	98	.087	- 37	.25	- 13
1400	.28	-138	3.80	82	.081	- 42	.23	- 34
1600	.27	-150	3.76	68	.079	- 51	.21	- 51
1800	.25	-160	3.76	50	.082	- 56	.18	- 77
2000	.21	-167	3.85	33	.082	- 68	.14	-100



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