

RF AMPLIFIER

MODEL *TM9701*

Available as: TM9701, 4 Pin TO-8 (T4)
 TN9701, 4 Pin Surface Mount (SM)
 FP9701, 4 Pin Flatpack (FP4)
 BX9701, Connectorized Housing (H1)

Features

- GaAs FET Design
- Low Noise Figure: 3.0 dB Typical
- Medium Output Power: +15 dBm Typical
- Operating Temperature: -55 °C to +85 °C

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+48 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+43 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+29 dBm (Typ.)

Specifications

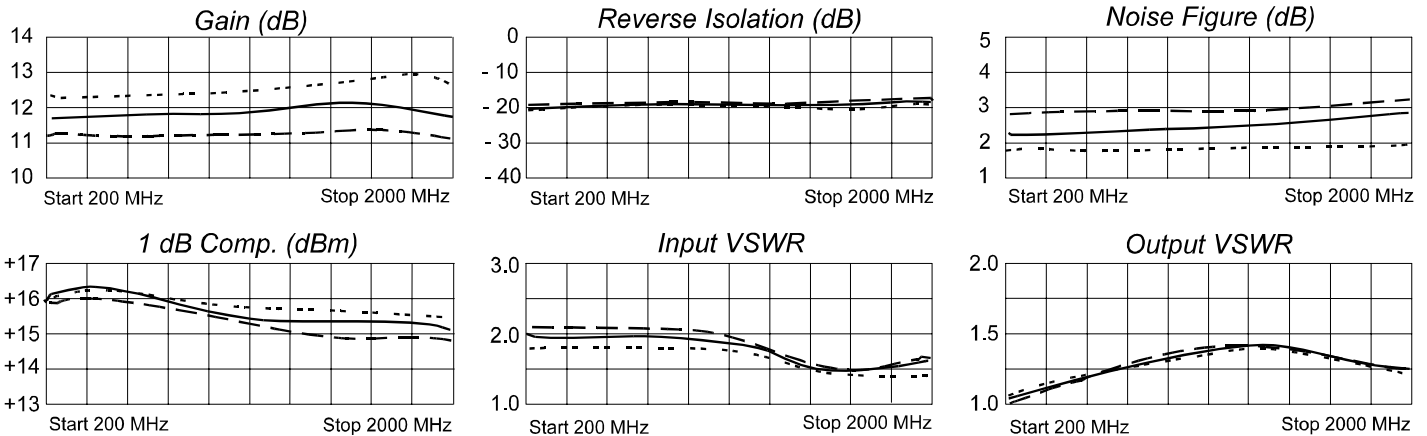
CHARACTERISTIC	TYPICAL Ta = 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency (MHz)	200-2000 MHz	200-2000 MHz
Gain (dB)	12	11.0 Min.
Power @ 1 dB Comp. (dBm)	+15	+14 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<2.0:1	2.2:1 Max
VSWR Out	<1.5:1	2.0:1 Max
Noise figure (dB)	3.0	4.0 Max.
Power Vdc	+5	+5
mA	48	52 Max

Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage + 8 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.)

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.
200	.31	-21	3.90	174	.10	- 6	.05	-153
400	.31	-40	3.88	151	.10	- 16	.08	-138
600	.33	-59	3.8	137	.10	- 24	.12	-146
800	.33	-79	3.79	124	.10	- 33	.12	-156
1000	.33	-97	3.82	109	.10	- 42	.14	-159
1200	.33	-115	3.86	94	.10	- 53	.16	-166
1400	.27	-138	3.84	78	.11	- 58	.19	-179
1600	.26	-164	3.87	61	.11	- 75	.18	-169
1800	.22	-146	3.89	41	.11	- 86	.17	-156
2000	.24	71	3.73	21	.11	- 97	.16	-144



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 Rev. 12/18/07

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