

RF AMPLIFIER

MODEL *TM9704*

Available as: TM9704, 4 Pin TO-8 (T4)
 TN9704, 4 Pin Surface Mount (SM3)
 FP9704, 4 Pin Flatpack (FP4)
 BX9704, Connectorized Housing (H1)

Features

- High Gain: 18.0 dB
- Low Noise Figure: 3.5 dB
- 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 (MHz)	100-2500 MHz	100-2500 MHz
Gain (dB)	18.0	17.0 Min.
Power @ 1 dB Comp. (dBm)	+18	+17 Min.
Reverse Isolation (dB)	-35	-30 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	3.5	4.5 Max.
Power Vdc	+15	+15
mA	88	93 Max.

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

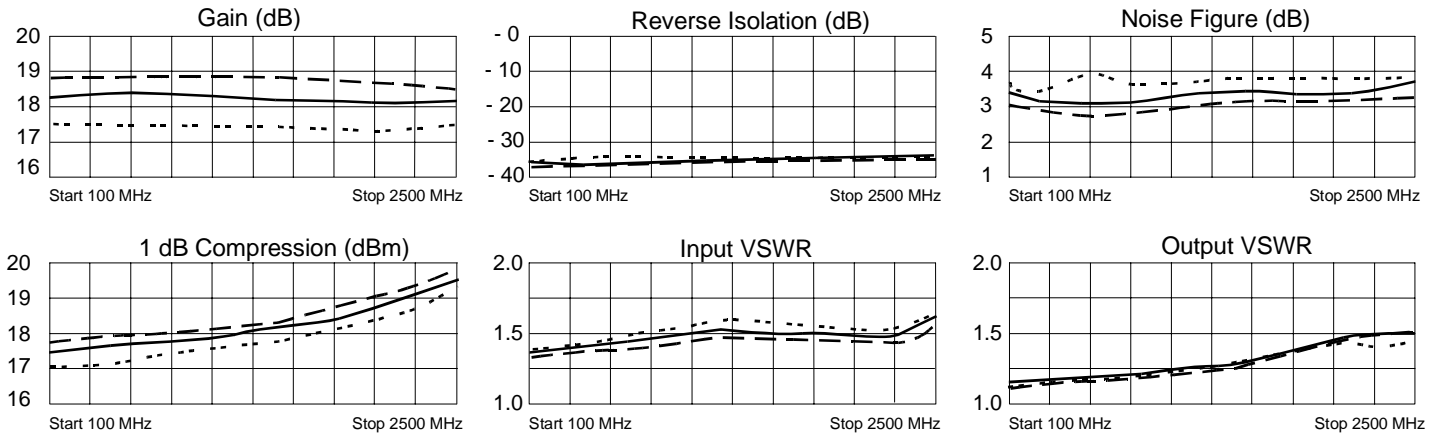
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +48 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+42 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +28 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 + 17 Volts
 Continuous RF Input Power + 17 dBm
 Short Term RF Input Power ... 100 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
100	.17	-2	8.33	-10	.0136	-0	.08	1
300	.17	-1	8.32	-12	.0161	-6	.08	0
500	.17	-2	8.36	-13	.0167	2	.08	1
700	.17	-2	8.35	-15	.0152	-7	.08	-2
900	.18	-2	8.33	-16	.0155	-9	.08	-2
1100	.18	-3	8.33	-18	.0146	-7	.08	-2
1300	.18	-2	8.34	-20	.0150	-13	.08	-4
1500	.18	-3	8.35	-21	.0132	-6	.08	-6
1700	.18	-3	8.33	-22	.0140	-3	.08	-5
1900	.18	-4	8.33	-24	.0127	-5	.08	-6
2100	.18	-4	8.33	-25	.0159	-4	.08	-6
2300	.18	-4	8.32	-27	.0133	-12	.08	-6
2500	.18	-5	8.32	-28	.0143	-13	.08	-8



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 01/14/04

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