

RF AMPLIFIER

MODEL *TM9705*

Available as: TM9705, 4 Pin TO-8 (T4)
 TN9705, 4 Pin Surface Mount (SM3)
 WP9705, 4 Pin Gullwing (SG -15)
 BX9705, Connectorized Housing (H1)
 PN9705, Reduced Size Surface Mount (SM11)

Features

- GaAs FET; Low Noise Figure: 1.5 dB Typical
- High Output Power: 23 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	225 - 400 MHz	225 - 400 MHz
Gain (dB)	15.0	14 Min./ 16 Max.
Power @ 1 dB Comp. (dBm)	+23.0	+22.0 Min.
Reverse Isolation (dB)	-21.0	-15 Max.
VSWR In	1.7:1	2.0:1 Max.
Out	1.7:1	2.0:1 Max.
Noise figure (dB)	1.5	2.0 Max.
Power Vdc	+15	+15
mA	90	100 Max.

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

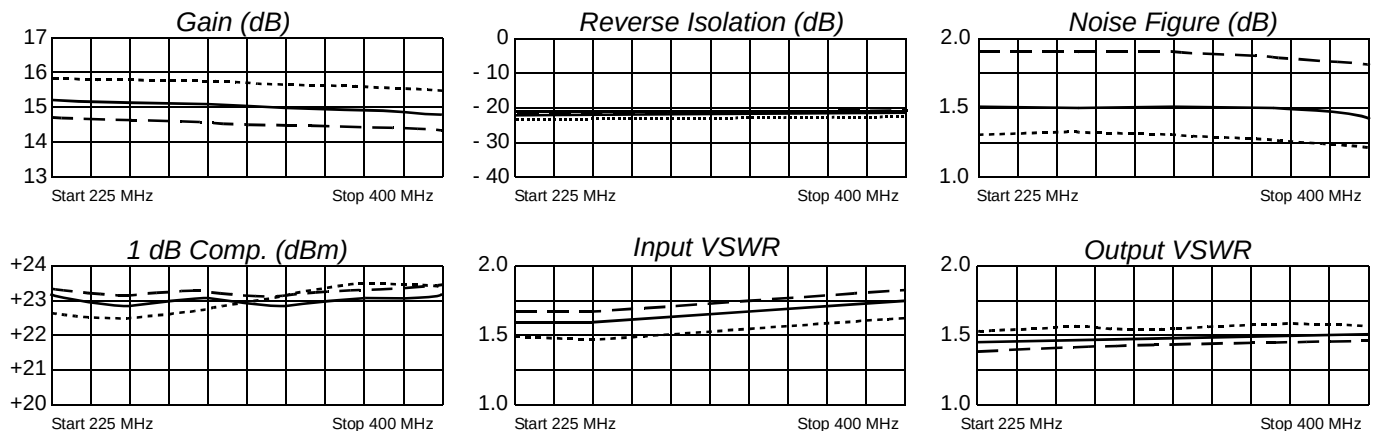
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +49 dBm (Typ.)
 Second Order Two Tone Intercept Point +44 dBm (Typ.)
 Third Order Two Tone Intercept Point +34 dBm (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 95 °C
 DC Voltage + 17 Volts
 Continuous RF Input Power + 15 dBm
 Short Term RF Input Power ... 100 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.2 Watt (3 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	---- S11 ---- Mag. Deg.	---- S21 ---- Mag. Deg.	---- S12 ---- Mag. Deg.	---- S22 ---- Mag. Deg.
225	.22 -11	5.75 165	.0819 8	.17 -159
260	.22 -28	5.71 160	.0825 6	.17 -163
295	.22 -43	5.66 155	.0832 4	.17 -166
300	.22 -57	5.61 151	.0837 2	.17 -168
400	.23 -80	5.45 142	.0852 - 1	.18 -173



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 02/02/05

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