

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	Max.
VSWR In	1.7:1	2.0:1 Max.
VSWR 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.

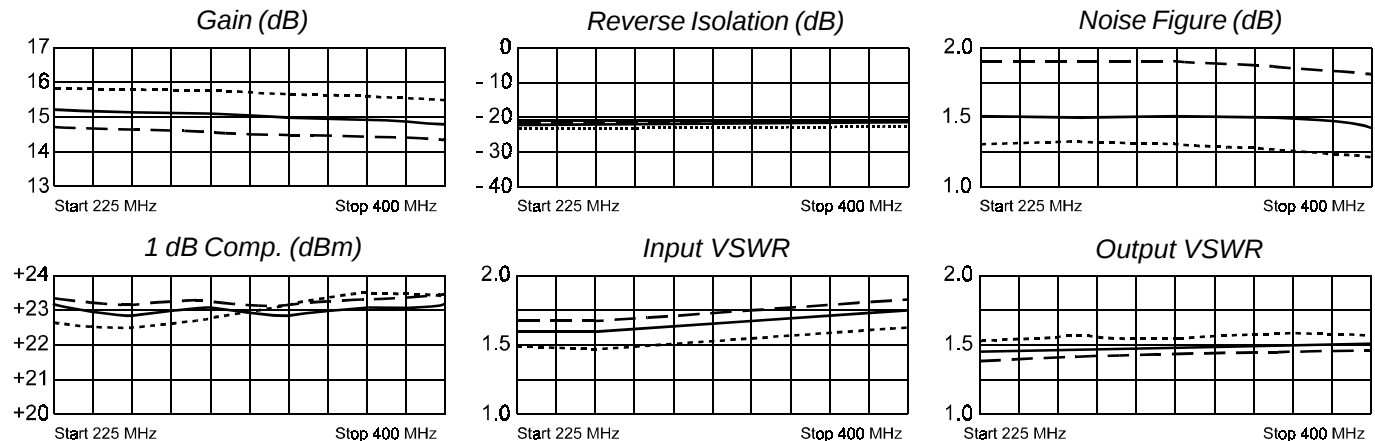
Typical Intermodulation Performance at 25 ° C

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



Legend ——— + 25 °C - - - - + 85 °C ······ -55 °C

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag.	Deg.	Mag.	Deg.	Mag.	Deg.	Mag.	Deg.
225	.22	-11	5.75	165	.0819	8	.17	-159
280	.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

Amplifonix

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