

RF AMPLIFIER

MODEL *TM6705*

Available as: TM6705, 4 Pin TO-8 (T4)
 TN6705, 4 Pin Surface Mount (SM3)
 FP6705, 4 Pin Flatpack (FP4)
 BX6705, Connectorized Housing (H1)

Features

- High IP3: +37 dBm Typical
- High Output Power: +20 dBm Typical
- Bipolar Design
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	10.5	9 Min./11 Max.
Power @ 1 dB Comp. (dBm)	+20	+18 Min.
Reverse Isolation (dB)	-22	-20 Max.
VSWR In	1.25:1	2.0:1 Max.
Out	1.25:1	2.0:1 Max.
Noise Figure (dB)	4.5	6.5 Max.
Power Vdc	+15	+15
mA	62	70 Max.

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

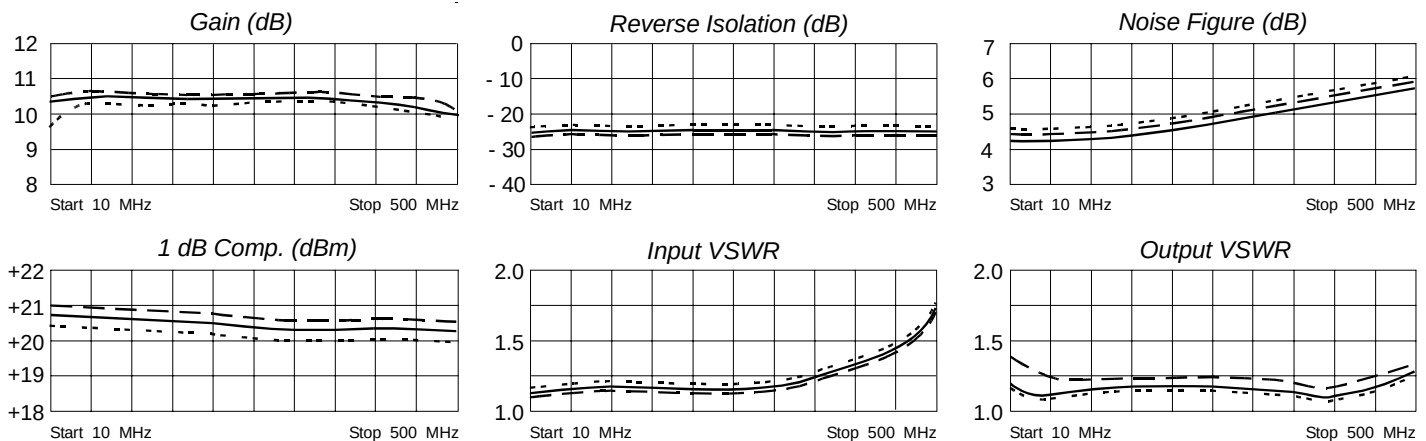
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+56 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+50 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +37 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 +18 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.)

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
5	.11	- 41	3.39	-156	.08	-157	.09	-105
50	.07	- 16	3.49	168	.08	167	.05	149
100	.06	- 17	3.47	152	.08	149	.06	105
200	.05	- 47	3.50	123	.08	119	.09	48
300	.05	-133	3.55	94	.09	91	.08	- 11
400	.14	159	3.57	61	.10	64	.07	- 87
500	.29	120	3.40	25	.11	35	.10	-178



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

Rev.
5/9/08

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