

RF AMPLIFIER

MODEL *TM6681*

Available as: TM6681, 4 Pin TO-8 (T4)
 TN6681, 4 Pin Surface Mount (SM3)
 FP6681, 4 Pin Flatpack (FP4)
 BX6681, Connectorized Housing (H1)

Features

- High Gain: -37 dB Typical
- Very Low Output VSWR: 1.1:1 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	10 - 500 MHz	20 - 500 MHz
Gain (dB)	17.5	15.5 Min.
Power @ 1 dB Comp. (dBm)	+9.5	+7.0 Min.
Reverse Isolation (dB)	-37	-35 Max.
VSWR In	1.40:1	2.00:1 Max.
Out	1.10:1	1.25:1 Max.
Noise figure (dB)	3.0	4.0 Max.
Power Vdc	+15	+15
mA	29	32 Max.

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

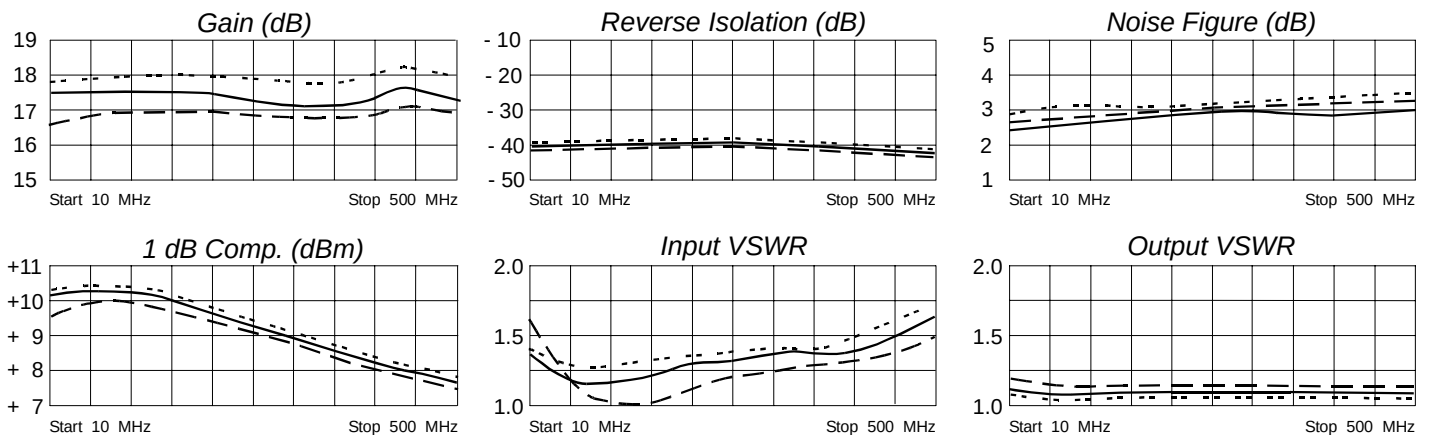
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point+33 dBm (Typ.)
 Second Order Two Tone Intercept Point +28 dBm (Typ.)
 Third Order Two Tone Intercept Point +23 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 + 10 dBm
 Short Term RF Input Power..... 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.30	- 84	7.21	-156	.01	15	.03	165
50	.06	-161	7.55	164	.01	16	.03	167
100	.07	107	7.53	139	.01	- 19	.02	-179
200	.14	41	7.29	94	.01	- 19	.03	-111
300	.18	- 8	7.11	48	.01	- 32	.04	-126
400	.19	- 77	7.46	- 2	.01	- 60	.02	-114
500	.29	152	7.37	- 81	.01	-123	.03	-123



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 04/12/05

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