

# RF AMPLIFIER

## MODEL *TM6675*

Available as: TM6675, 4 Pin TO-8 (T4)  
 TN6675, 4 Pin Surface Mount (SM3)  
 FP6675, 4 Pin Flatpack (FP4)  
 BX6675, Connectorized Housing (H1)

### Features

- High Gain: 20.5 dB Typical
- Low Noise Figure: <2.3 dB 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	20.5	19.0 Min.
Power @ 1 dB Comp. (dBm)	+ 5	+ 4.0 Min.
Reverse Isolation (dB)	- 23.5	- 22.5 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	2.3	3.0 Max.
Power Vdc	+15	+15
mA	15	17 Max.

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

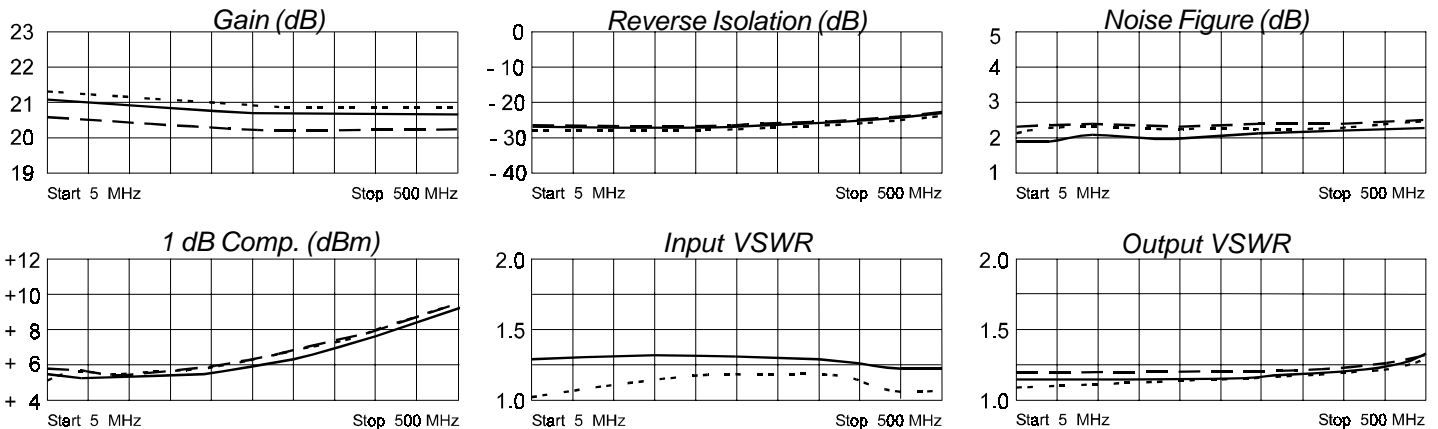
### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +26 (Typ.)  
 Second Order Two Tone Intercept Point ..... +21 (Typ.)  
 Third Order Two Tone Intercept Point ..... +18 (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	.14	0	11.31	-179	.05	3	.07	- 5
50	.14	- 2	11.19	168	.05	- 2	.08	- 9
100	.15	- 5	11.09	156	.05	- 1	.08	- 22
200	.14	- 17	10.89	132	.05	- 5	.08	- 51
300	.13	- 32	10.71	109	.05	- 6	.07	- 92
400	.10	- 61	10.68	84	.06	- 10	.08	-154
500	.08	-126	10.64	58	.06	- 14	.15	148



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