

# RF AMPLIFIER

## MODEL *TM6674*

Available as: TM6674, 4 Pin TO-8 (T4)  
 TN6674, 4 Pin Surface Mount (SM3)  
 FP6674, 4 Pin Flatpack (FP4)  
 BX6674, Connectorized Housing (H1)

### Features

- High Gain: 28 dB Typical
- Low DC Power: +65 mW @ 5V 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)	28	26.0 Min.
Power @ 1 dB Comp. (dBm)	-1.0	-2.0 Min.
Reverse Isolation (dB)	-39	-37 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<2.5	<4.0 Max.
Power Vdc	+5	+5
mA	13	15 Max.

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

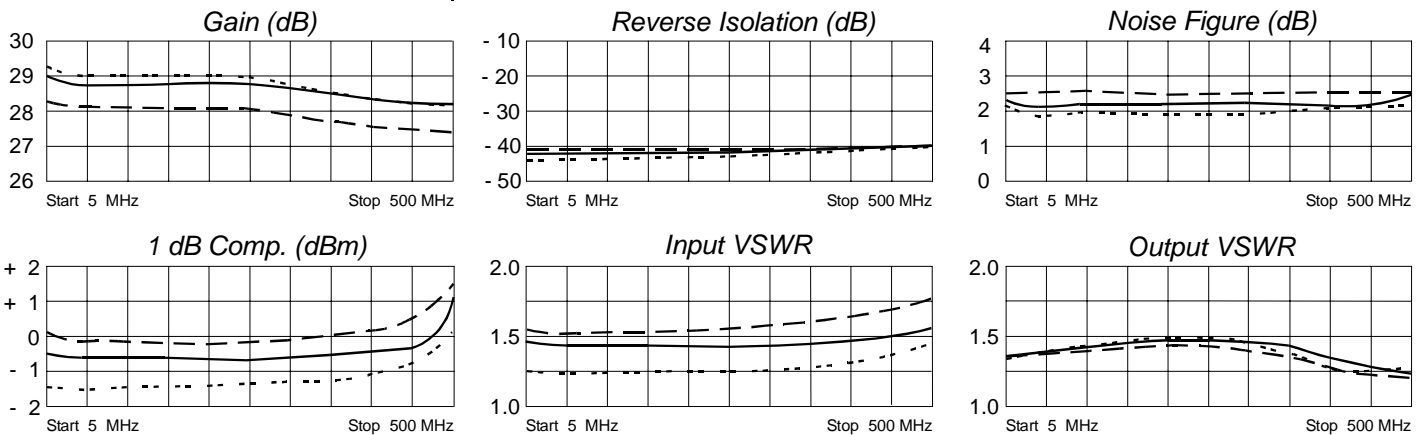
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +23 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +17 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +9 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 ..... + 10 Volts  
 Continuous RF Input Power ..... + 6 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	.21	- 7	27.22	3	.01	- 14	.16	-169
50	.20	- 10	26.32	- 19	.01	7	.17	-175
100	.20	- 21	26.42	- 37	.01	- 12	.17	-174
200	.20	- 39	26.34	- 74	.01	11	.17	-178
300	.21	- 61	25.78	-113	.01	- 10	.18	-178
400	.23	- 83	25.76	-150	.01	16	.16	-171
500	.25	-112	25.74	170	.01	4	.14	-177
600	.32	-135	26.01	130	.01	-41	.16	-177



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