

# RF AMPLIFIER

## MODEL *TM6654*

Available as: TM6654, 4 Pin TO-8 (T4)  
 TN6654, 4 Pin Surface Mount (SM3)  
 FP6654, 4 Pin Flatpack (FP4)  
 BX6654, Connectorized Housing (H1)

### Features

- High Gain : 29 dB Typical
- Low Noise Figure: < 2.5 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)	29	27.5 Min.
Power @ 1 dB Comp. (dBm)	+11	+10.0 Min.
Reverse Isolation (dB)	- 34.5	- 33 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	<2.5	3.0 Max.
Power Vdc	+5	+5
mA	40	45 Max.

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

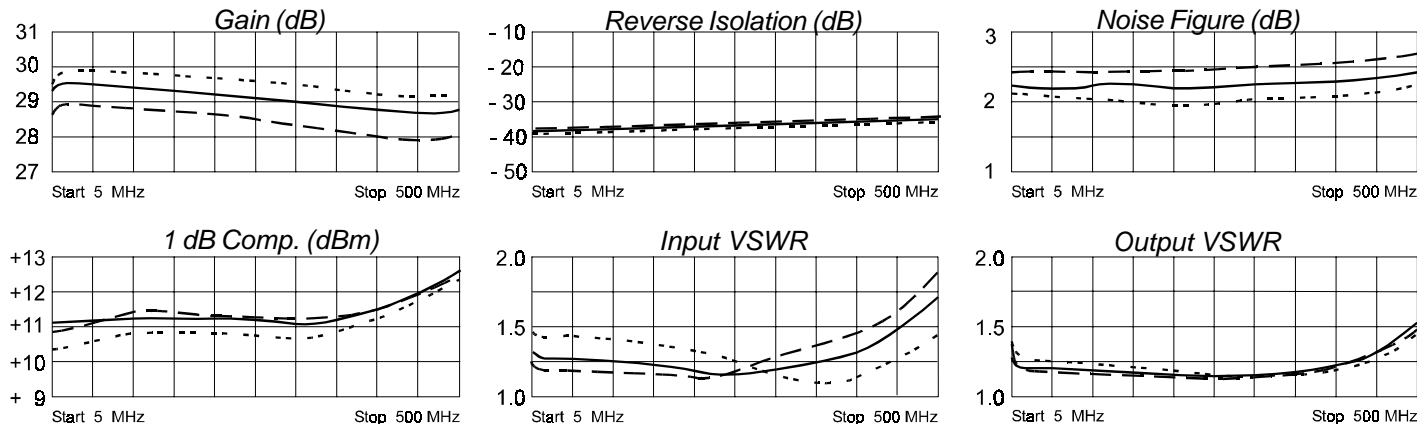
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +39 (Typ.)  
 Second Order Two Tone Intercept Point ..... +33 (Typ.)  
 Third Order Two Tone Intercept Point ..... +23 (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 ..... + 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	.13	175	28.91	11	.01	13	.13	134
50	.12	161	29.63	- 21	.01	6	.09	176
100	.11	141	29.48	- 43	.01	- 3	.08	180
200	.09	92	28.91	- 83	.01	2	.07	166
300	.07	12	27.94	-131	.01	- 4	.07	142
400	.13	- 66	27.11	-175	.01	- 9	.09	111
500	.27	-115	27.29	137	.02	- 21	.21	77
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# Amplifonix

2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 • • • • FAX 215-464-4001 3/17/03