

# RF AMPLIFIER

## MODEL *TM5670*

Available as: TM5670, 4 Pin TO-8 (T4)  
 TN5670, 4 Pin Surface Mount (SM3)  
 FP5670, 4 Pin Flatpack (FP4)  
 BX5670, Connectorized Housing (H1)

### Features

- Low Noise Figure: 2.0 dB Typical
- 5 Volt Operation
- 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	20 - 250 MHz	20 - 250 MHz
Gain (dB)	8.2	7.0 Min.
Power @ 1 dB Comp. (dBm)	+15.5	+13.5 Min.
Reverse Isolation (dB)	- 11	- 10 Max.
VSWR In	1.35:1	2.0:1 Max.
Out	1.20:1	2.0:1 Max.
Noise figure (dB)	2.0	3.0 Max.
Power Vdc	+5	+5
mA	25	30 Max.

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

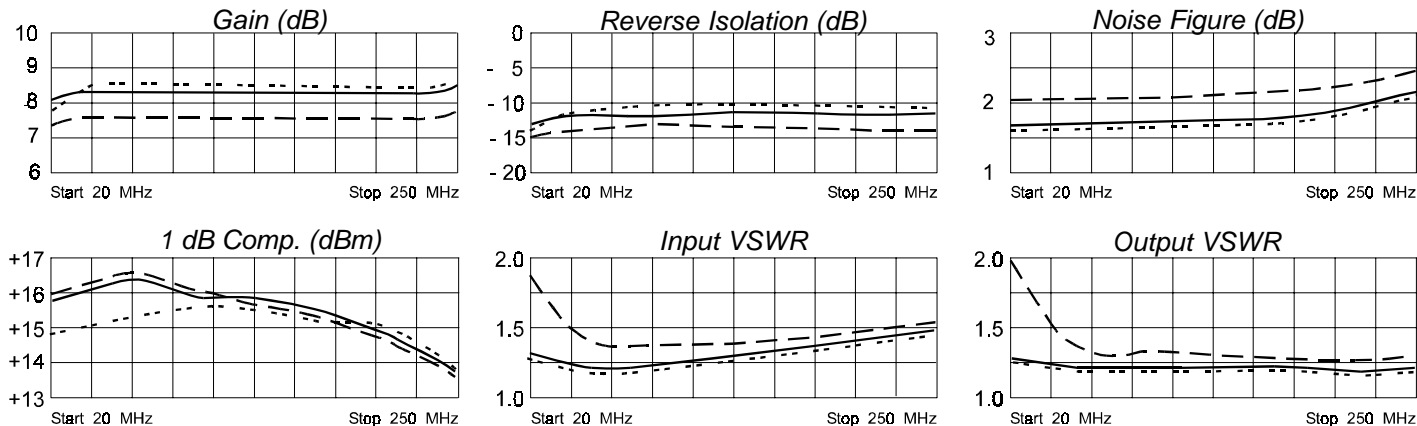
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +38 (Typ.)  
 Second Order Two Tone Intercept Point ..... +33 (Typ.)  
 Third Order Two Tone Intercept Point ..... +28 (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
10	.14	153	2.50	7	.28	7	.13	150
50	.11	-180	2.54	-9	.28	-9	.09	165
100	.12	-174	2.54	-21	.28	-20	.09	165
150	.14	-169	2.54	-32	.27	-31	.10	167
200	.18	-171	2.56	-44	.27	-43	.11	168
250	.23	-173	2.58	-56	.26	-55	.14	166

# Amplifonix

2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 ···· FAX 215-464-4001 3/13/03