

# RF AMPLIFIER

## MODEL *TM5119*

Available as: TM5119, 4 Pin TO-8 (T4)  
 TN5119, 4 Pin Surface Mount (SM3)  
 FP5119, 4 Pin Flatpack (FP4)  
 BX5119, Connectorized Housing (H1)

### Features

- Low Noise Figure: 2.25 dB Typical
- Medium Output Power: +16 dBm 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)	15.5	14.0 Min.
Power @ 1 dB Comp. (dBm)	+16	+14 Min.
Reverse Isolation (dB)	- 19	- 18 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise figure (dB)	2.25	3.0 Max.
Power Vdc	+15	+15
mA	30	35 Max.

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

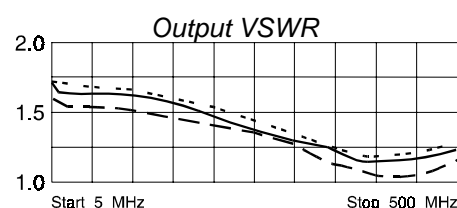
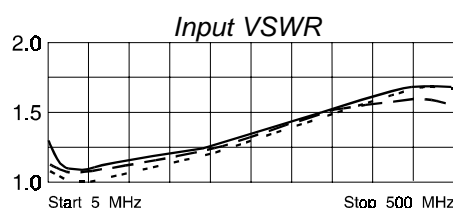
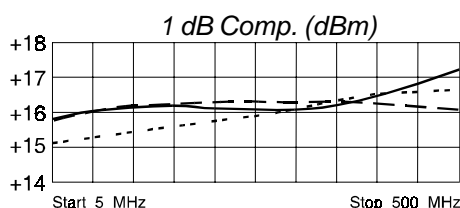
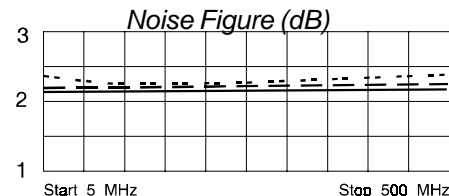
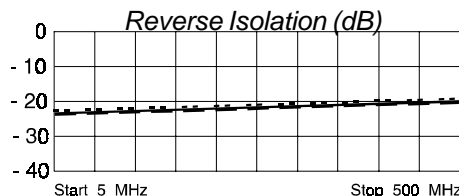
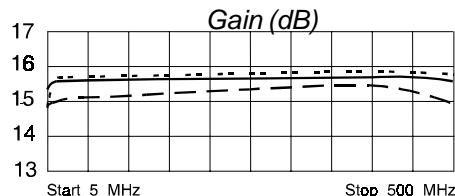
### Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point ..... +49 (Typ.)  
 Second Order Two Tone Intercept Point ..... +44 (Typ.)  
 Third Order Two Tone Intercept Point ..... +32 (Typ.)

### Maximum Ratings

Ambient Operating Temperature ..... -55°C to + 100 °C  
 Storage Temperature ..... -62°C to + 125 °C  
 Case Temperature ..... + 125 °C  
 DC Voltage ..... + 18Volts  
 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	.11	- 57	5.84	-164	.09	-163	.26	- 14
50	.05	- 29	6.00	169	.09	168	.24	- 12
100	.06	- 41	6.00	157	.10	151	.23	- 22
200	.11	- 66	6.04	132	.10	123	.19	- 44
300	.18	-100	6.13	106	.11	98	.12	- 77
400	.23	-139	6.12	78	.11	75	.05	-150
500	.26	178	5.89	48	.11	52	.12	104

# Amplifonix

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