

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.

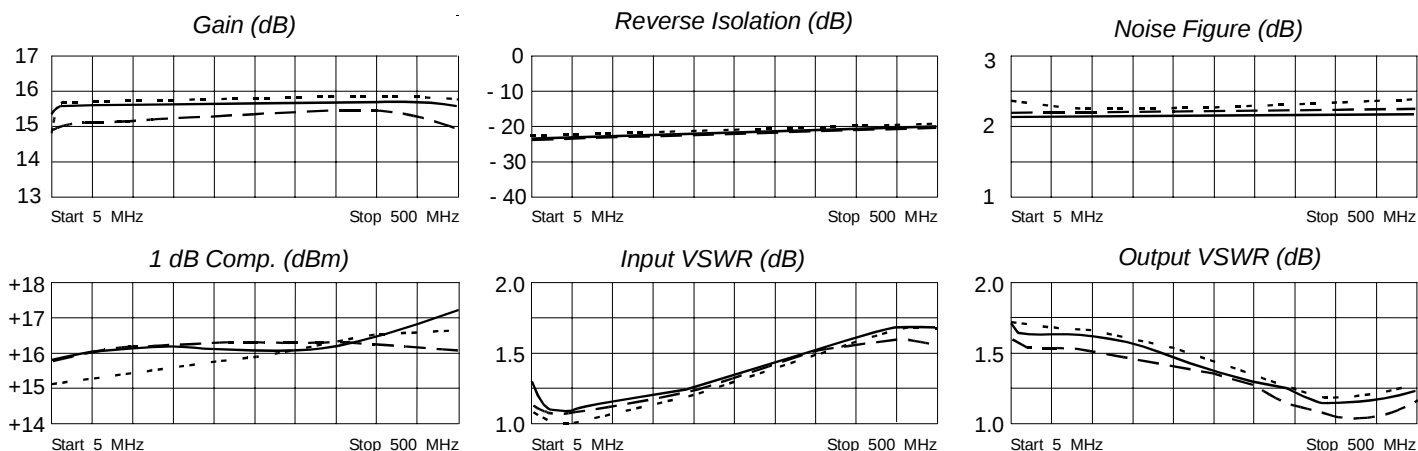
Typical Intermodulation Performance at 25 °C

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



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532

6/10/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001