

RF AMPLIFIER

MODEL *TM9319*

Available as: TM9319, 4 Pin TO-8 (T4)
 TN9319, 4 Pin Surface Mount (SM3)
 FP9319, 4 Pin Flatpack (FP4)
 BX9319, Connectorized Housing (H1)

Features

- High Output Power: +22 dBm Typical
- High Third Order Intercept: +35 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	10 - 1000 MHz	10 - 1000 MHz
Gain (dB)	11.5	10.0 Min.
Power @ 1 dB Comp. (dBm)	+22	+20 Min.
Reverse Isolation (dB)	-18	-16 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	5.5*	7.5* Max.
Power Vdc	+15	+15
mA	90	99 Max.

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

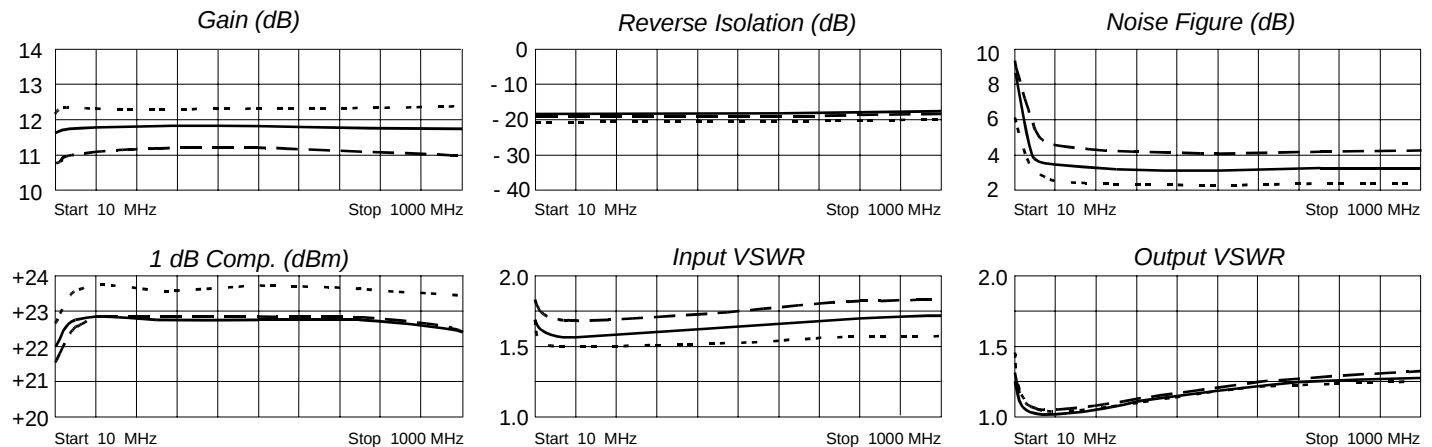
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+52 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+46 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+35 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 + 18 Volts
 Continuous RF Input Power + 18 dBm
 Short Term RF Input Power.... 100 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	.26	-27	3.85	-165	.12	11	.14	99
100	.22	-18	3.90	175	.12	-2	.00	7
200	.22	-30	3.92	167	.12	-6	.02	-72
400	.23	-54	3.91	152	.12	-13	.06	-93
600	.25	-77	3.91	138	.12	-21	.09	-106
800	.26	-98	3.90	124	.12	-29	.11	-116
1000	.27	-118	3.89	109	.12	-38	.13	-123



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 05/12/05

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