

RF AMPLIFIER

MODEL *TM9136*

Available as: TM9136, 4 Pin TO-8 (T4)
 TN9136, 4 Pin Surface Mount (SM3)
 FP9136, 4 Pin Flatpack (FP4)
 BX9136, Connectorized Housing (H1)

Features

- High Gain: 17 dB Typical
- Medium Output Power: +12 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 - 2000 MHz	10 - 2000 MHz
Gain (dB)	17	15.0 Min.
Power @ 1 dB Comp. (dBm)	+12	+11.0 Min.
Reverse Isolation (dB)	-26	-25.0 Max.
VSWR In	<1.5:1	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	63	68 Max.

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

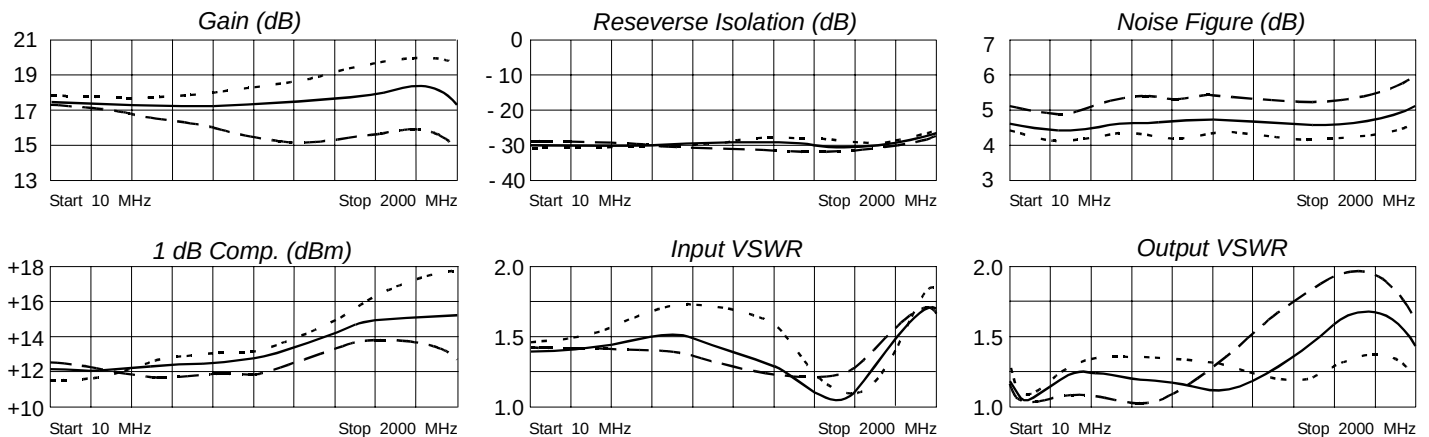
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +33 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +28 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +22 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 + 10 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	.16	178	7.66	6	.03	9	.08	104
50	.16	179	7.63	- 8	.03	2	.01	151
100	.16	179	7.62	- 19	.03	- 5	.02	-123
250	.17	175	7.51	- 48	.03	- 6	.07	-141
500	.19	159	7.31	- 95	.03	-11	.10	176
750	.20	138	7.16	-141	.03	-17	.08	122
1000	.18	104	7.24	-173	.03	-26	.05	21
1250	.12	66	7.35	126	.03	-44	.11	- 72
1500	.02	22	7.51	76	.03	-50	.20	-126
1750	.12	120	7.85	21	.04	-55	.24	-180
2000	.26	42	7.22	- 54	.05	-81	.14	103



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 02/17/05

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