

RF AMPLIFIER

MODEL *TM9101*

Available as: TM9101, 4 Pin TO-8 (T4)
 TN9101, 4 Pin Surface Mount (SM3)
 FP9101, 4 Pin Flatpack (FP4)
 BX9101, Connectorized Housing (H1)

Features

- Low Noise Figure: 2.4 dB Typical
- Medium Gain: 15 dB 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 - 1000 MHz	5 - 1000 MHz
Gain (dB)	15	14 Min.
Power @ 1 dB Comp. (dBm)	+1	-2 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise Figure (dB)	2.4	4.0 Max.
Power Vdc	+15	+15
mA	9	12 Max.

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

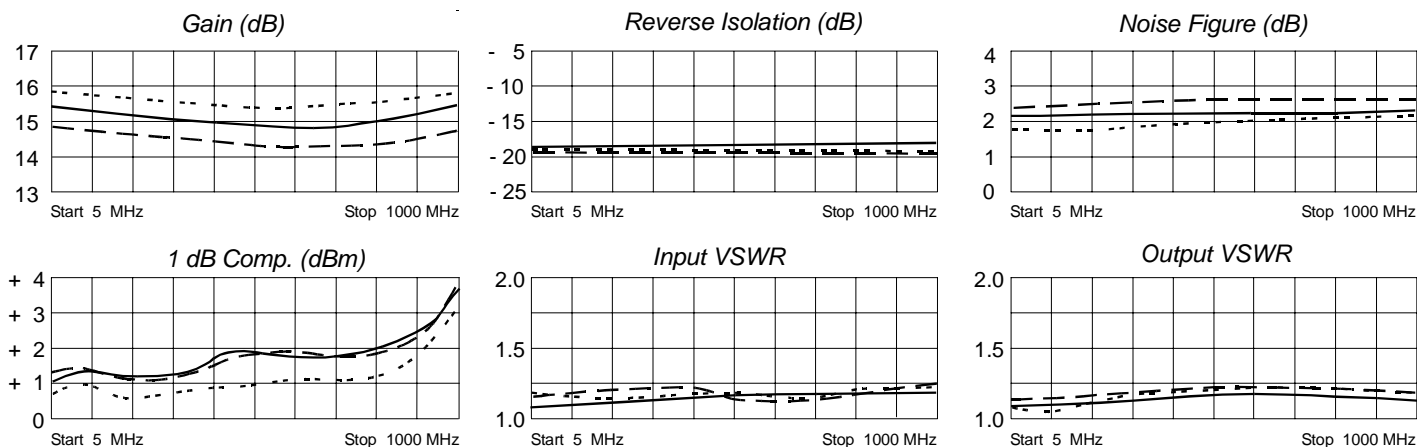
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+20 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+15 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+12 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 + 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	.03	-11	5.89	-178	.11	3	.03	-23
100	.04	21	5.82	165	.11	-2	.04	12
200	.05	22	5.76	150	.11	-6	.04	7
400	.07	14	5.61	121	.11	-12	.07	-19
600	.08	-4	5.50	92	.11	-19	.08	-55
800	.08	-37	5.60	63	.11	-27	.07	-94
1000	.11	-97	5.94	30	.12	-36	.05	-131



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 07/7/04

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