

RF AMPLIFIER

MODEL *TM9165*

Available as: TM9165, 4 Pin TO-8 (T4)
 TN9165, 4 Pin Surface Mount (SM3)
 FP9165, 4 Pin Flatpack (FP4)
 BX9165, Connectorized Housing (H1)

Features

- Gain: 10.5 dB Typical
- Output Power: +11 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)	10.5	9.0 Min.
Power @ 1 dB Comp. (dBm)	+11	+9.0 Min.
Reverse Isolation (dB)	-15.5	-14 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<4.5	6.0 Max.
Power Vdc	+15	+15
mA	30	34 Max.

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

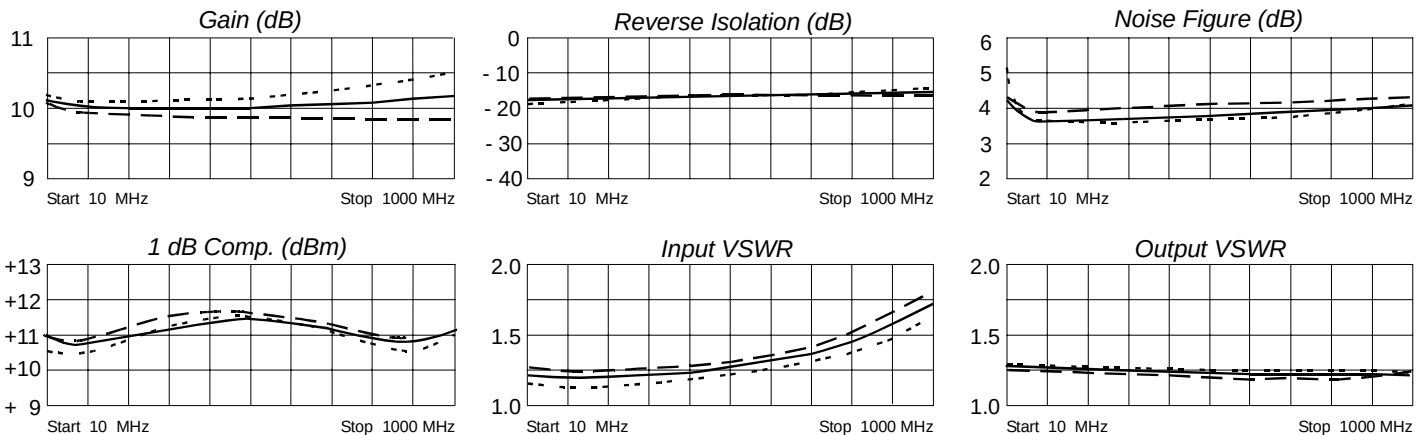
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +42 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +37 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +24 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



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.10	- 4	3.22	-180	.14	0	.12	-175
50	.09	- 7	3.19	175	.14	- 1	.12	178
100	.09	- 12	3.18	170	.14	- 1	.12	177
300	.10	- 25	3.16	149	.14	- 3	.11	168
500	.12	- 49	3.18	128	.15	- 6	.10	166
700	.16	- 74	3.18	107	.16	- 11	.09	167
900	.22	-104	3.24	85	.16	- 18	.09	174
1000	.27	-119	3.26	73	.16	- 20	.09	-179



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