

RF AMPLIFIER

MODEL *TM9321*

Available as: TM9321, 4 Pin TO-8 (T4)
 TN9321, 4 Pin Surface Mount (SM3)
 FP9321, 4 Pin Flatpack (FP4)
 BX9321, Connectorized Housing (H1)

Features

- High Gain: 23 dB Gain Typical
- Output Power: +14 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 - 1000 MHz	5 - 1000 MHz
Gain (dB)	23	21.0 Min.
Power @ 1 dB Comp. (dBm)	+14	+12.0 Min.
Reverse Isolation (dB)	-32	-30 Max.
VSWR In	<1.6:1	2.0:1 Max.
Out	<1.6:1	2.0:1 Max.
Noise figure (dB)	<4.2	5.0 Max.
Power Vdc	+15	+15
mA	64	70 Max.

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

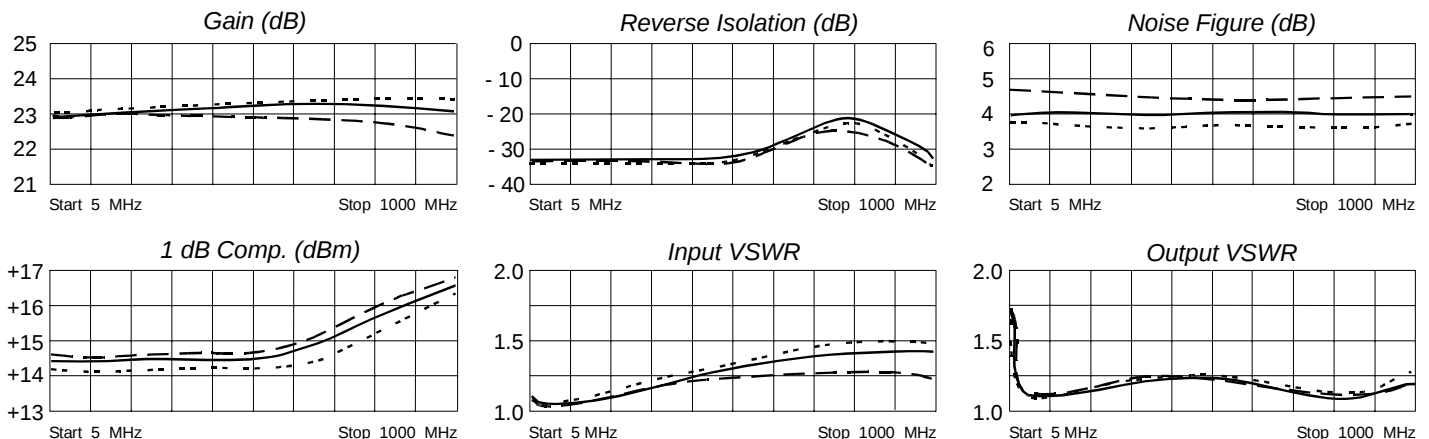
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +51 dBm (Typ.)
 Second Order Two Tone Intercept Point +45 dBm (Typ.)
 Third Order Two Tone Intercept Point +27 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	.06	112	14.17	19	.02	23	.23	122
10	.02	101	14.38	7	.02	11	.12	124
50	.01	-129	14.26	-10	.02	2	.05	162
100	.02	-133	14.25	-21	.02	1	.05	-179
200	.04	-143	14.28	-44	.02	3	.06	-160
400	.09	174	14.38	-90	.02	-1	.09	-170
600	.13	130	14.51	-136	.02	-4	.08	174
800	.16	81	14.44	176	.03	-11	.04	168
1000	.15	25	14.11	126	.02	-22	.07	-137



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 11/22/04

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