

RF AMPLIFIER

MODEL *TM9312*

Available as: TM9312, 4 Pin TO-8 (T4)
 TN9312, 4 Pin Surface Mount (SM3)
 FP9312, 4 Pin Flatpack (FP4)
 BX9312, Connectorized Housing (H1)

Features

- Low Noise Figure: <3 dB Typical
- Medium Gain: 16.5 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)	16.5	15.0 Min.
Power @ 1 dB Comp. (dBm)	+7	+5 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<3.0	4.0 Max.
Power Vdc	+15	+15
mA	18	20 Max.

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

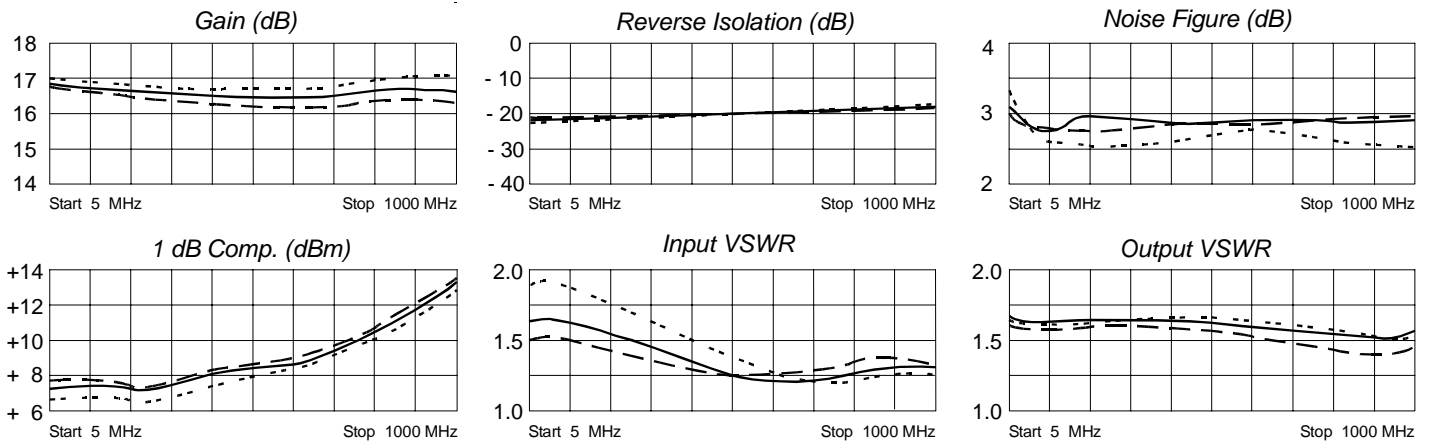
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+30 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+24 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+20 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	.24	-174	7.30	-176	.08	4	.26	-176
50	.24	174	6.90	171	.09	- 0	.25	169
100	.23	166	6.88	162	.08	0	.25	160
200	.22	151	6.83	143	.09	- 3	.25	138
400	.15	132	6.69	108	.09	- 12	.24	101
600	.10	145	6.65	71	.10	-20	.24	69
800	.13	155	6.78	33	.11	-34	.22	43
1000	.14	120	6.80	- 13	.12	-48	.23	39



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