

RF AMPLIFIER

MODEL *TM9316*

Available as: TM9316, 4 Pin TO-8 (T4)
 TN9316, 4 Pin Surface Mount (SM3)
 FP9316, 4 Pin Flatpack (FP4)
 BX9316, Connectorized Housing (H1)

Features

- Low 5 Volt Operation
- Low Noise: 3.0 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 - 1300 MHz	5 - 1200 MHz
Gain (dB)	13	12 Min.
Power @ 1 dB Comp. (dBm)	+6	+4.5 Min.
Reverse Isolation (dB)	-16	-14 Max.
VSWR In	1.25:1	2.0:1 Max.
Out	1.35:1	2.0:1 Max.
Noise Figure (dB)	3	4 Max.
Power Vdc	+5	+5
mA	15	18 Max.

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

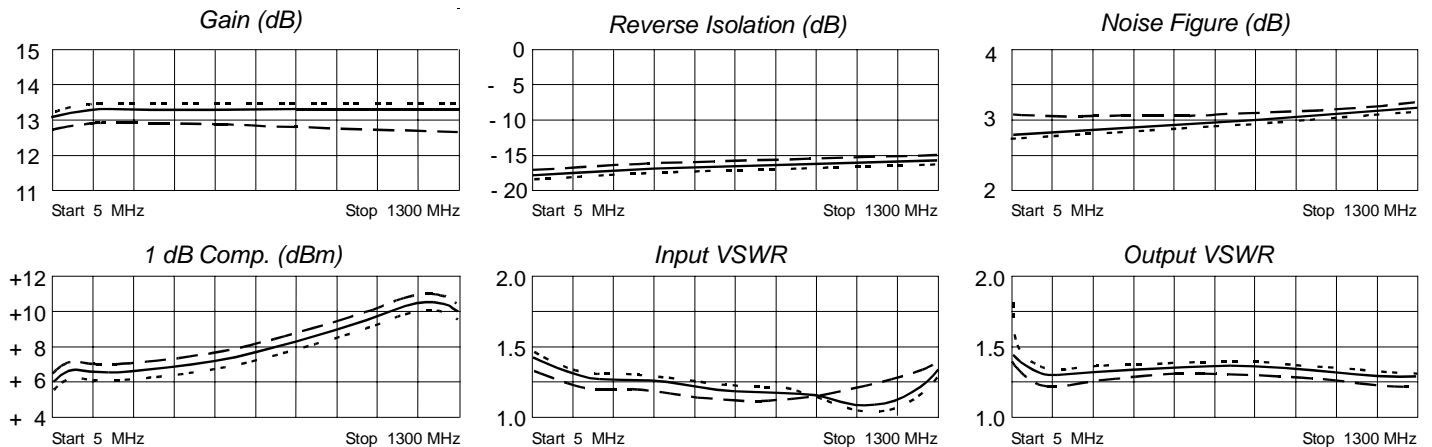
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+33 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+28 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+19 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 + 8 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
10	.14	-155.31	4.51	-175.22	.13	6.49	.14	158.63
100	.14	-175.67	4.57	-170.22	.13	1.12	.12	154.02
200	.13	-161.98	4.57	-159.28	.14	1.19	.12	133.81
400	.11	-147.92	4.58	-138.22	.14	1.50	.12	95.62
600	.07	-135.15	4.55	-117.40	.15	-.74	.14	57.41
800	.04	-155.21	4.52	-95.54	.16	-4.29	.14	24.53
1000	.06	-154.82	4.53	-73.69	.16	-6.11	.14	-7.08
1200	.13	-153.92	4.56	-51.02	.17	-9.16	.14	-36.96
1300	.19	-156.59	4.60	-39.64	.17	-9.38	.15	-53.83



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