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 ºC to +85 ºC
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
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.

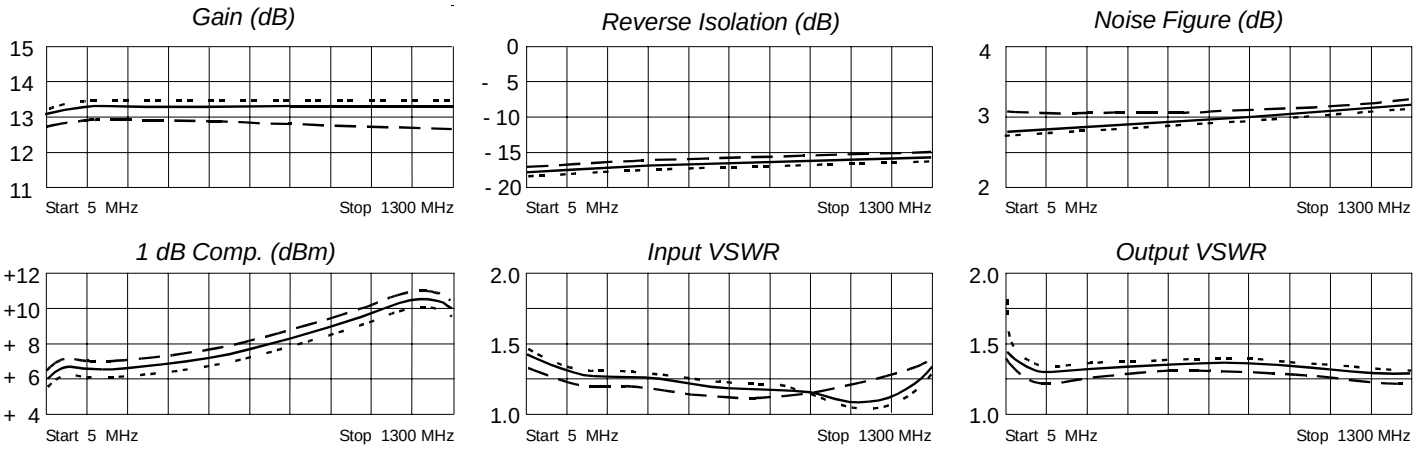
Typical Intermodulation Performance at 25 º C

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 ..... -55ºC to + 100 ºC
Storage Temperature ..... -62ºC to + 125 ºC
Case Temperature ..... + 125 ºC
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 ºC* – – – *+ 85 ºC* - - - - - - *-55 ºC*

Linear S-Parameters

FREQ.	S11		S21		S12		S22	
MHz	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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