RF AMPLIFIER
MODEL *TM3002*

Available as: TM3002, 4 Pin TO-8 (T4)
TN3002, 4 Pin Surface Mount (SM3)
FP3002, 4 Pin Flatpack (FP4)
BX3002, Connectorized Housing (H1)

Features

- High Output Power: +26 dBm Typical
- High Third Order Intercept: +37 dBm 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	1400 - 2400 MHz	1400 - 2400 MHz
Gain (dB)	12	10.5 Min.
Power @ 1 dB Comp. (dBm)	+26	+25 Min.
Reverse Isolation (dB)	-18	-16 Max.
VSWR In Out	<2.25:1 <1.50:1	2.75:1 Max. 2.0:1 Max.
Noise Figure (dB)	<4.0	6.0 Max.
Power Vdc mA	+15 150	+15 160 Max.

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

Typical Intermodulation Performance at 25 ºC

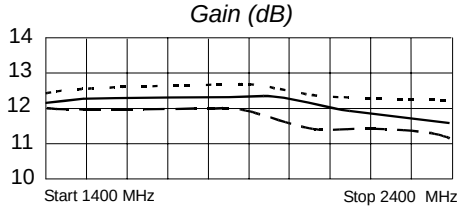
Second Order Harmonic Intercept Point ..... +52 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +46 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +37 dBm (Typ.)

Absolute Maximum (No Damage) Ratings

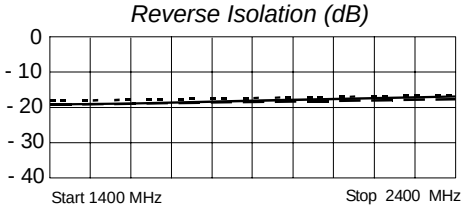
Ambient Operating Temperature ..... -55ºC to +100 ºC
Storage Temperature ..... -62ºC to +125 ºC
Case Temperature ..... +125 ºC
DC Voltage ..... +18 Volts
Continuous RF Input Power ..... +18 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Typical Performance Data

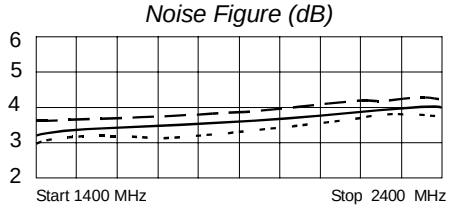
Gain (dB)



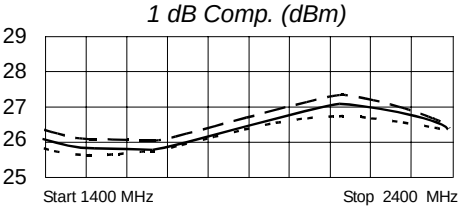
Reverse Isolation (dB)



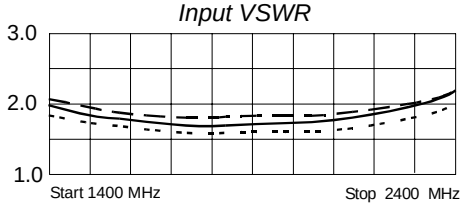
Noise Figure (dB)



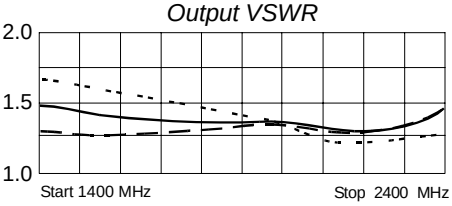
1 dB Comp. (dBm)



Input VSWR



Output VSWR



Legend ——— +25 ºC – – –+85 ºC - - - - - - -55 ºC

Linear S-Parameters

Freq. MHz	----S11---- Mag	Deg	----S21---- Mag	Deg	----S12---- Mag	Deg	----S22---- Mag	Deg
1400	.27	179	3.96	82	.11	-44	.16	45
1500	.26	174	4.03	73	.10	-47	.15	31
1600	.24	168	4.05	64	.11	-51	.13	15
1700	.22	162	4.14	54	.11	-55	.13	-8
1800	.18	154	4.18	45	.10	-56	.12	-31
1900	.14	146	4.27	34	.11	-62	.12	-50
2000	.10	132	4.28	22	.11	-68	.13	-79
2100	.06	82	4.17	10	.10	-73	.14	-106
2200	.10	-4	4.12	0	.10	-78	.13	-128
2300	.19	-36	4.11	-13	.10	-84	.12	-143
2400	.29	-56	3.98	-26	.10	-87	.12	-144

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