

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 °C to + 85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	1400 - 2400 MHz	1400 - 2400 MHz
Gain (dB)	12	8 Min.
Power @ 1 dB Comp. (dBm)	+26	+22 Min.
Reverse Isolation (dB)	-18	-16 Max.
VSWR In	<2.25:1	2.75:1 Max.
Out	<1.50:1	2.0:1 Max.
Noise Figure (dB)	<4.0	6.0 Max.
Power Vdc	+15	+15
mA	150	160 Max.

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

Typical Intermodulation Performance at 25 °C

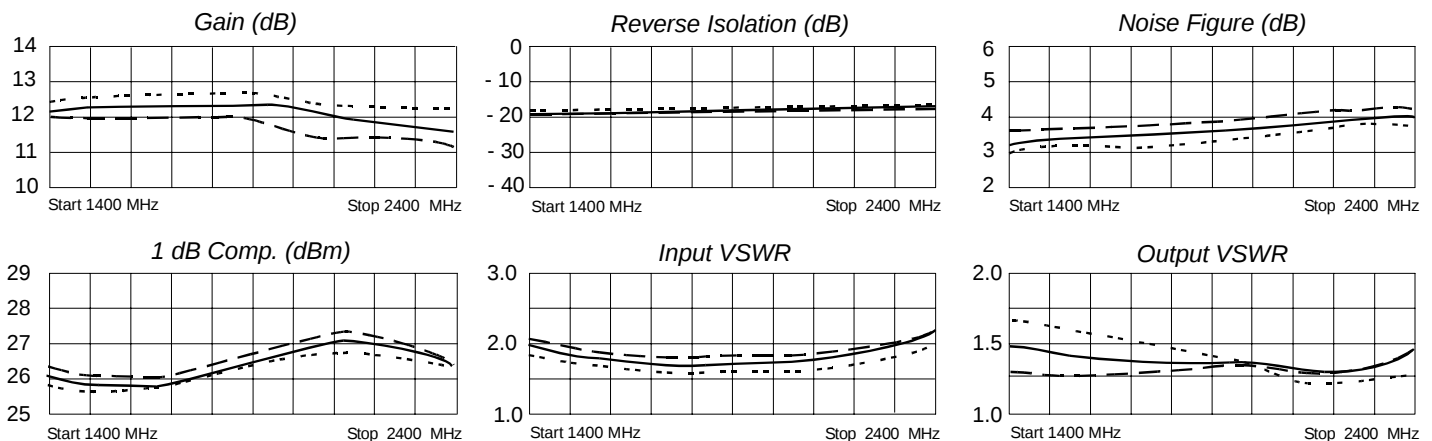
Second Order Harmonic Intercept Point +52 dBm (Typ.)
 Second Order Two Tone Intercept Point +46 dBm (Typ.)
 Third Order Two Tone Intercept Point +37 dBm (Typ.)

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 + 18 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Legend ——— + 25 °C - - - + 85 °C - - - - -55 °C

Typical Performance Data



Linear S-Parameters

Freq. MHz	---S11---		---S21---		---S12---		---S22---	
	Mag	Deg	Mag	Deg	Mag	Deg	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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