RF AMPLIFIER
MODEL *TM3042*

Available as: TM3042, 4 Pin TO-8 (T4)
TN3042, 4 Pin Surface Mount (SM3)
FP3042, 4 Pin Flatpack (FP4)
BX3042, Connectorized Housing (H1)

Features

- High Gain: +23 dB Typical
- Low Noise Figure: 3 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	10 - 1200 MHz	10 - 1200 MHz
Gain (dB)	23	21 Min.
Power @ 1 dB Comp. (dBm)	+19	+18 Min.
Reverse Isolation (dB)	-30	-28 Max.
VSWR In Out	1.2:1 1.5:1	1.7:1 Max. 1.7:1 Max.
Noise Figure (dB)	3.0	4.5 Max.
Power Vdc mA	+15 75	+15 85 Max.

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

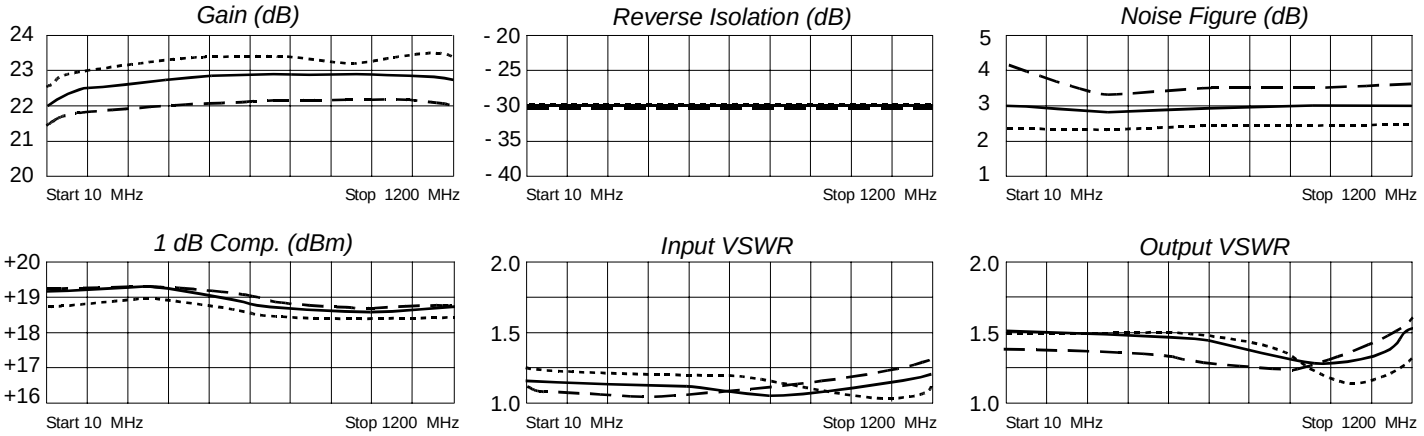
Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +45 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +40 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +32 dBm (Typ.)

Maximum 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 ..... + 10 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. MHz	----S11---- Mag	Deg	----S21---- Mag	Deg	----S12---- Mag	Deg	----S22---- Mag	Deg
12	.12	-17	13.10	20	.0103	10	.14	150
25	.12	- 9	13.18	7	.0096	4	.12	163
50	.12	- 4	13.25	- 2	.0138	- 0	.11	171
100	.12	- 2	13.36	- 13	.0135	-10	.11	175
150	.12	- 3	13.44	- 22	.0120	7	.11	177
200	.11	- 3	13.53	- 30	.0109	- 9	.12	178
400	.12	- 6	13.79	- 64	.0137	-12	.13	174
600	.11	-13	14.13	-100	.0112	- 6	.13	159
500	.10	-22	14.19	-137	.0087	-18	.11	141
1000	.07	-39	13.81	-176	.0095	-33	.04	133
1200	.04	-93	12.93	144	.0063	-44	.07	-132

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