RF AMPLIFIER
MODEL *TM6121*

Available as: TM6121, 4 Pin TO-8 (T4)
TN6121, 4 Pin Surface Mount (SM3)
FP6121, 4 Pin Flatpack (FP4)
BX6121, Connectorized Housing (H1)

Features

- High IP3:+38 dBm 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	20 - 200 MHz	20 - 200 MHz
Gain (dB)	10	10 ± 0.6 Min.
Power @ 1 dB Comp. (dBm)	+20	+18 Min.
Reverse Isolation (dB)	-18	-17 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<3	4.0 Max.
Power Vdc	+15	+15
mA	60	70 Max.

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

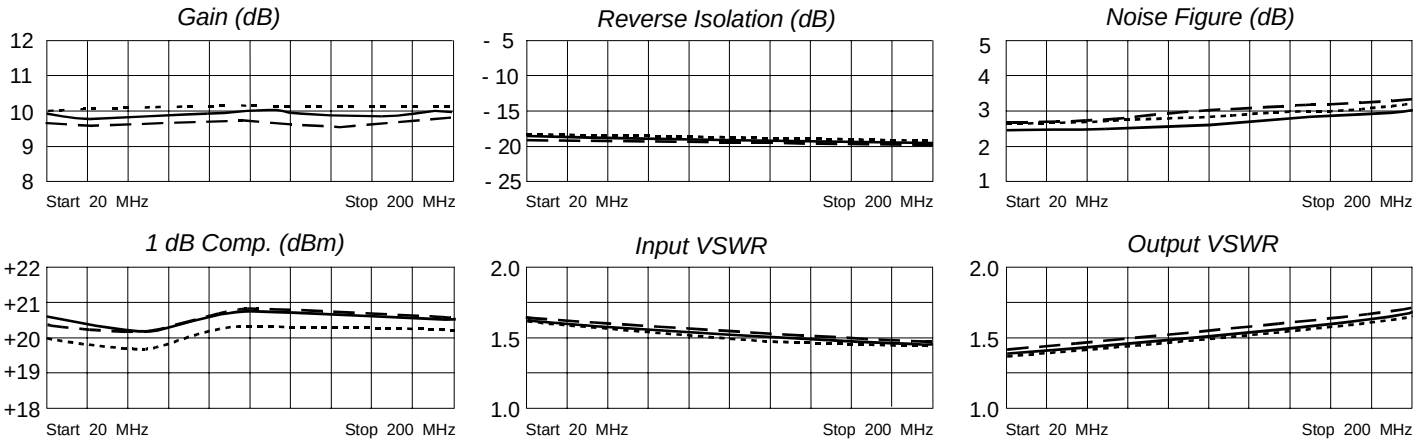
Typical Intermodulation Performance at 25 º C

Second Order Harmonic Intercept Point ..... +60 dBm (Typ.)
Second Order Two Tone Intercept Point ..... +55 dBm (Typ.)
Third Order Two Tone Intercept Point ..... +38 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 ..... + 17 dBm
Short Term RF Input Power.... 200 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	.20	-148	3.10	-174	.11	-175	.21	-169
20	.19	-166	3.12	178	.12	176	.22	-176
50	.18	176	3.09	165	.11	163	.22	176
100	.18	161	3.07	147	.11	143	.23	-165
150	.18	151	3.08	130	.11	126	.24	155
200	.20	139	3.10	112	.11	108	.24	148
300	.25	108	3.01	71	.09	78	.30	143

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