RF AMPLIFIER
MODEL *TM7145*

Available as: TM7145, 4 Pin TO-8 (T4)
TN7145, 4 Pin Surface Mount (SM3)
BX7145, Connectorized Housing (H1)

Features

- Very Low Noise Figure: 2 dB Typical
- Output Power : +12 dBm Typical
- Higher Intercept Performance: +28 dBm IP3
- Environmental Screening Available

Typical Intermodulation Performance at 25 ºC

Second Order Harmonic Intercept Point.....+47 dBm (Typ.)
Second Order Two Tone Intercept Point.....+41 dBm (Typ.)
Third Order Two Tone Intercept Point.....+28 dBm (Typ.)

Specifications

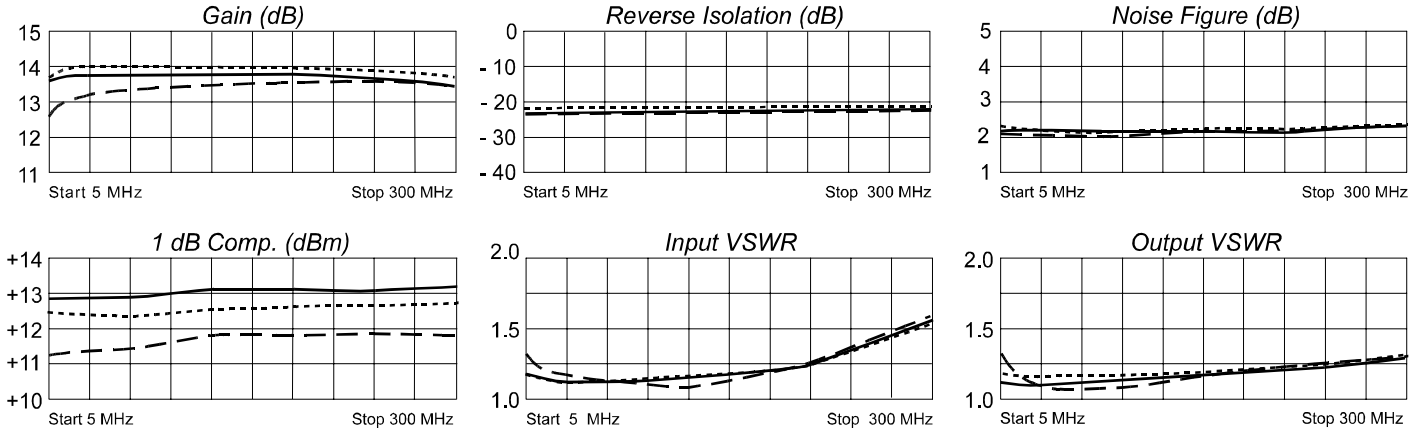
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	5 - 300 MHz	5 - 250 MHz
Gain (dB)	13.0	12.0 Min.
Gain Flatness (dB)	+/- 0.25	+/-0.7 Max.
Power @ 1 dB Comp. (dBm)	+12.0	10.5 Min.
Reverse Isolation (dB)	-22	-21 Max.
VSWR In Out	1.4:1 <1.2:1	1.7:1 Max. 1.5:1 Max.
Noise Figure (dB)	2	3 Max.
Power Vdc mA	+15 30	+15 Min. 38 Max.

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

Maximum Ratings

Ambient Operating Temperature .....-55ºC to +100 ºC
Storage Temperature .....-62ºC to +125 ºC
Case Temperature .....+125 ºC
DC Voltage ..... +19 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
5	.19	-98	4.72	-159	.076	-158	.09	-27
20	.10	-150	4.92	179	.076	178	.06	-18
50	.09	-168	4.92	170	.077	171	.05	- 9
100	.08	-173	4.93	156	.077	157	.04	- 7
150	.07	-162	4.92	142	.077	145	.03	-13
200	.07	-141	4.93	129	.077	129	.03	-13
250	.11	-135	4.93	116	.076	117	.02	24
300	.16	-141	4.88	102	.077	107	.03	55

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Rev. 1/22/09
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