

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

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
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	1.4:1	1.7:1 Max.
Out	<1.2:1	1.5:1 Max.
Noise Figure (dB)	2	3 Max.
Power Vdc	+15	+15 Min.
mA	30	38 Max.

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

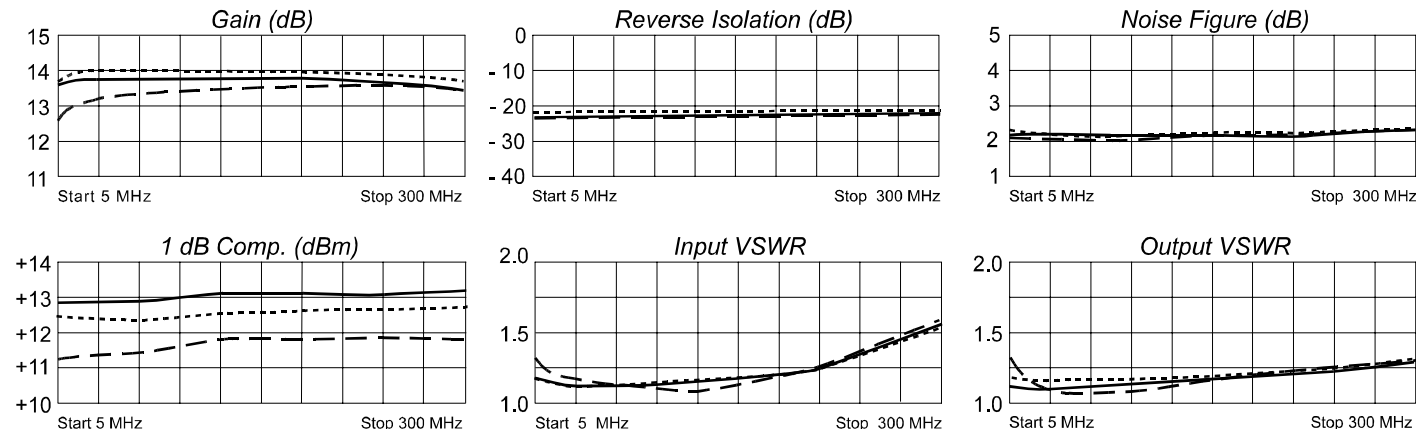
Typical Intermodulation Performance at 25 °C

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



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	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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