

RF AMPLIFIER

MODEL *TM6441*

Available as: TM6441, 4 Pin TO-8 (T4)
 TN6441, 4 Pin Surface Mount (SM3)
 FP6441, 4 Pin Flatpack (FP4)
 BX6441, Connectorized Housing (H1)

Features

- Output Power: +16 dBm Typical
- High Dynamic Range: 85 dB 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	20 - 400 MHz	20 - 400 MHz
Gain (dB)	14.5	13.0 Min.
Power @ 1 dB Comp. (dBm)	+16.0	+15.0 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	<1.5:1	2.0:1 Mx.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	3.5	5.0 Max.
Power Vdc	+15	+15
mA	32	35 Max.

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

Typical Intermodulation Performance at 25 °C

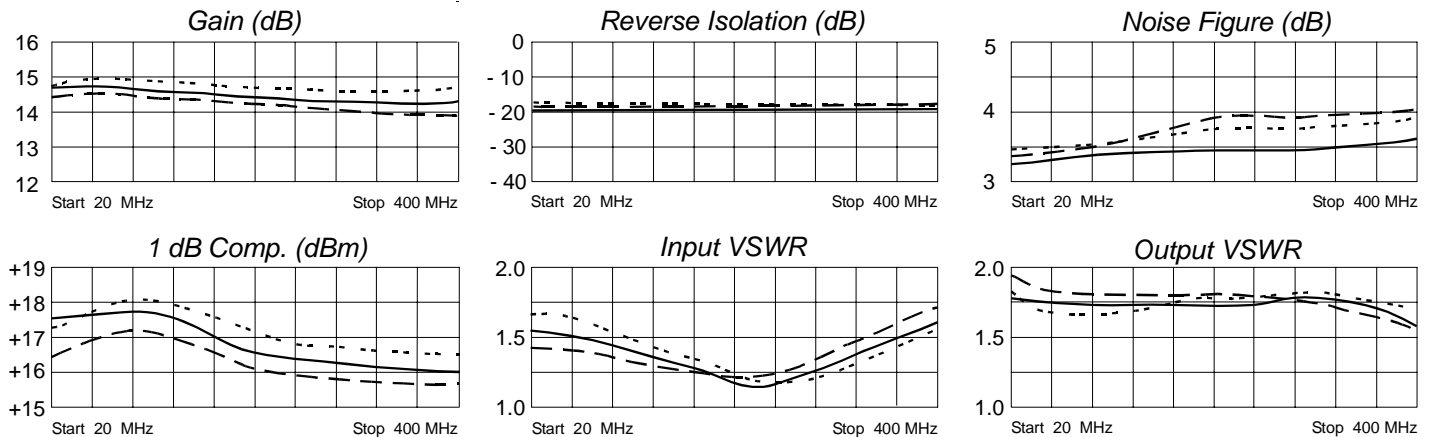
Second Order Harmonic Intercept Point.... +53 dBm (Typ.)
 Second Order Two Tone Intercept Point.... +48 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +31 dBm (Typ.)

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 + 13 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watts (3 µsec Max.)

* Spurious-free Dynamic Range Calculated for 1 MHz Bandwidth

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.22	-154	5.38	-176	.10	7	.30	170
20	.22	-169	5.46	177	.10	2	.28	173
50	.21	179	5.47	164	.10	- 6	.27	178
100	.18	168	5.43	146	.10	- 15	.27	-180
200	.09	176	5.30	110	.10	- 31	.29	179
300	.13	-126	5.17	74	.11	- 49	.29	166
400	.24	-136	5.18	34	.11	- 72	.24	124
500	.20	-160	4.98	- 18	.10	-108	.35	7



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