

RF Amplifier

5 Volt Operation

Model TM5441

10 to 400 MHz

Features

- 5 Volt Operation
- Power Output: +15 dBm 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	10-400 MHz	10-400 MHz
Gain (dB)	14.5	13.0 Min.
Power @ 1 dB Comp. (dBm)	+15	+12.0 Min.
Reverse Isolation (dB)	-20	-17 Max.
VSWR In	1.25:1	2.0:1 Max.
Out	1.6:1	2.0:1 Max.
Noise Figure (dB)	3.8	4.5 Max.
Power Vdc	+5	+5 Min.
mA	33	36 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 +39 dBm (Typ.)
 Second Order Two Tone Intercept Point +33 dBm (Typ.)
 Third Order Two Tone Intercept Point +25 dBm (Typ.)

Maximum Ratings

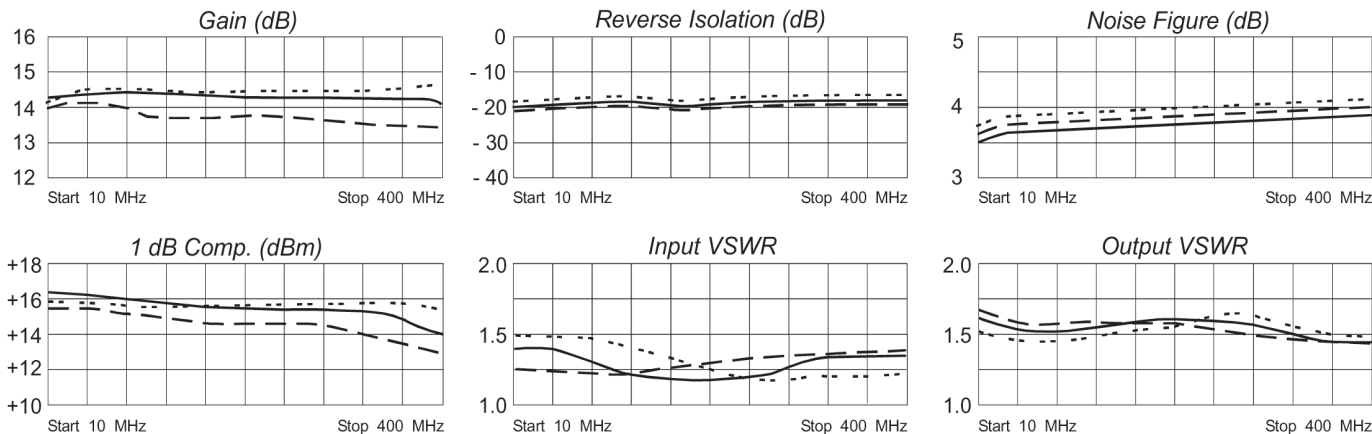
Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 8 Volts
 Continuous RF Input Power + 18 dBm
 Short Term RF Input Power 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.5 Watt (3 µsec Max.)

Packaging Options (see Appendix)

TM5441, 4 Pin TO-8 (T4)
 TN5441, 4 Pin Surface Mount (SM3)
 FP5441, 4 Pin Flatpack (FP4)
 BX5441, Connectorized Housing (H1)

Amplifiers

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	.15	-147	5.21	-176	.10	6	.24	169
50	.13	-177	6.29	162	.10	- 7	.22	180
100	.12	178	5.22	142	.10	- 15	.22	-178
200	.09	-165	5.10	103	.10	- 33	.24	179
300	.12	-149	5.10	62	.11	- 54	.22	158
400	.14	166	5.01	13	.12	- 82	.18	80
500	.22	31	4.06	- 47	.11	-128	.49	- 23

