

RF Amplifier

Gain: 19.5 dB

Model TM6184

10 to 2000 MHz

Features

- Gain: 19.5 dB Typical
- Output Power: +11 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	10-2000 MHz	10-2000 MHz
Gain (dB)	19.5	18.0 Min.
Power @ 1 dB Comp. (dBm)	>+11	+10.0 Min.
Reverse Isolation (dB)	-30	- 25 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.75:1	2.0:1 Max.
Noise Figure (dB)	<4.5	6.0 Max.
Power Vdc	+15	+15
mA	54	60 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.... +43 dBm (Typ.)
 Second Order Two Tone Intercept Point.... +37 dBm (Typ.)
 Third Order Two Tone Intercept Point..... +23 dBm (Typ.)

Maximum Ratings

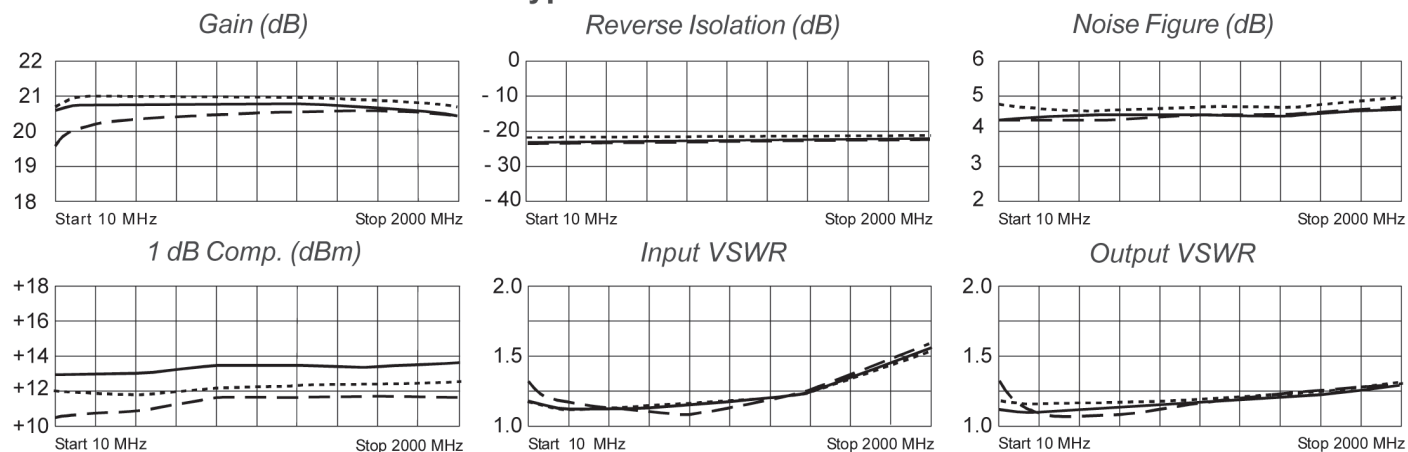
Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 125 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 6 dBm
 Short Term RF Input Power..... 20 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.2 Watt (3 µsec Max.)

Packaging Options (see Appendix)

TM6184, 4 Pin TO-8 (T4)
 TN6184 4 Pin Surface Mount (SM3)
 FP6184, 4 Pin Flatpack (FP4)
 BX6184, Connectorized Housing (H1)

Amplifiers

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	Mag	S11 Deg	Mag	S21 Deg	Mag	S12 Deg	Mag	S22 Deg
10	.02	-168	9.97	3	.03	4	.06	163
50	.03	-143	9.90	-9	.03	0	.06	-158
100	.05	-130	9.85	-19	.03	-1	.08	-140
200	.09	-128	9.79	-39	.03	-3	.14	-135
400	.15	-142	9.60	-77	.03	-9	.23	-148
800	.17	-172	9.43	-152	.03	-13	.29	173
1200	.14	-162	9.39	130	.03	-28	.15	166
1600	.14	176	9.03	54	.03	-45	.25	-173
2000	.26	60	9.64	-45	.05	-78	.23	102



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