

RF AMPLIFIER

MODEL *TM6191PM*

Available as: TM6191PM, 4 Pin TO-8 (T4)
 TN6191PM, 4 Pin Surface Mount (SM3)
 FP6191PM, 4 Pin Flatpack (FP4)
 BX6191PM, Connectorized Housing (H1)

Features

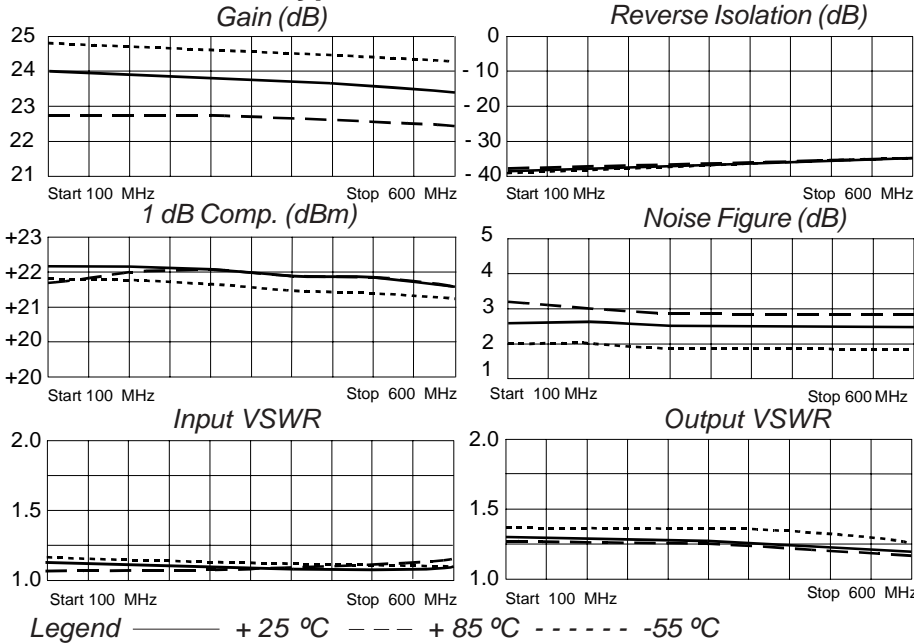
- Low Noise Figure: 2.5 dB Typical
- Medium Output Power: +21.5 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	100 - 600 MHz	100 - 600 MHz
Gain (dB)	23.5	22.0 Min.
Power @ 1 dB Comp. (dBm)	+ 21.5	+20 Min.
Reverse Isolation (dB)	- 35	- 33 Max.
VSWR In	<1.25:1	2.0:1 Max.
VSWR Out	<1.50:1	2.0:1 Max.
Noise Figure (dB)	2.5	4.0 Max.
Power Vdc	+15	+15
mA	95	100 Max.

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

Typical Performance Data



Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+57 dBm(Typ.)
 Second Order Two Tone Intercept Point.....+52 dBm(Typ.)
 Third Order Two Tone Intercept Point.....+36 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.... 200 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.5 Watt (3 μsec Max.)

Guaranteed Phase Noise Performance (dBc/Hz)

Frequency	Typical	Guarantee
100 Hz	-140	-136
1 kHz	-152	-148
10 kHz	-161	-157
100 kHz	-169	-165
1 MHz	-172	-168

* Residual Phase Noise Test Conditions
 Carrier Frequency: 600 MHz
 Power Output: +21.5 dBm
 Temperature: 25 °C
 Agilent ES5500 System

Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
100	.05	175	15.95	-17	.0131	3	.12	-173
200	.04	175	15.83	-39	.0129	2	.09	173
300	.03	-179	15.73	-59	.0146	4	.13	162
400	.02	-170	15.60	-80	.0155	5	.14	177
500	.02	-139	15.42	-101	.0163	1	.10	-167
600	.01	-98	14.93	-122	.0172	-1	.04	148



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