

RF Amplifier

High Output Power: >+23 dBm

Model TM5817

10 to 1500 MHz

Features

- High Output Power: >+23 dBm Typical
- High Third Order Intercept: +32 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	10-1500 MHz	10-1500 MHz
Gain (dB)	14	14 ± 1
Power @ 1 dB Comp. (dBm)	>+23	+20.0 Min.
Reverse Isolation (dB)	-20	-18.0 Max.
VSWR In	<1.5:1	2.0:1 Max.
VSWR Out	<1.75:1	2.0:1
Noise Figure (dB)	<6.0*	7.0* Max.
Power Vdc	+15	+15 Min.
mA	98	102 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 +49 dBm (Typ.)
Second Order Two Tone Intercept Point +44 dBm (Typ.)
Third Order Two Tone Intercept Point +32 dBm (Typ.)

Maximum Ratings

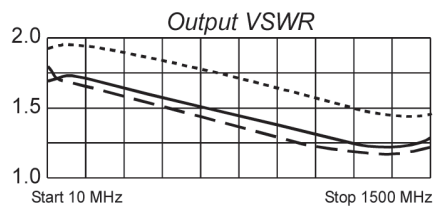
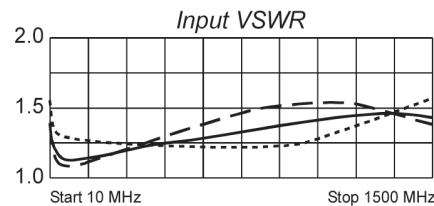
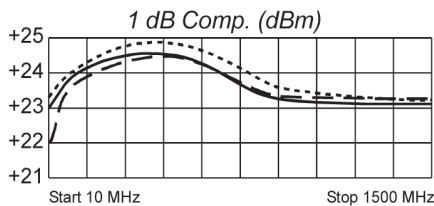
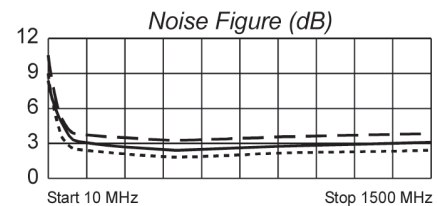
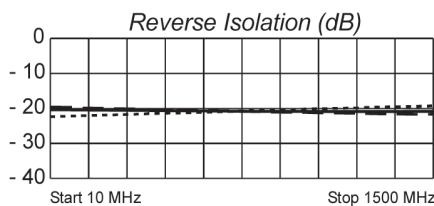
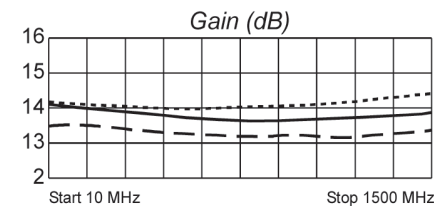
Ambient Operating Temperature -55°C to + 100 °C
Storage Temperature -62°C to + 125 °C
Case Temperature + 125 °C
DC Voltage + 17 Volts
Continuous RF Input Power + 13 dBm
Short Term RF Input Power 200 Milliwatts (1 Minute Max.)
Maximum Peak Power 0.5 Watt (3 µsec Max.)

Packaging Options (see Appendix)

TM5817, 4 Pin TO-8 (T4)
TN5817, 4 Pin Surface Mount (SM3)
FP5817, 4 Pin Flatpack (FP4)
BX5817, Connectorized Housing (H1)

* Noise figure is greater than 7.0 dB for frequencies below 30 MHz.

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	.18	-114	5.26	-167	.102	7	.26	171
100	.07	-165	5.08	171	.099	- 4	.27	173
300	.08	-132	4.97	152	.099	- 12	.26	159
500	.12	-127	4.89	134	.099	- 22	.23	145
700	.16	-124	4.83	117	.098	- 32	.19	131
900	.18	-130	4.82	98	.098	- 42	.16	115
1100	.21	-130	4.86	79	.097	- 54	.11	96
1300	.20	-131	4.92	59	.097	- 67	.11	73
1500	.21	-131	4.97	35	.096	- 83	.13	40

