

RF AMPLIFIER

MODEL *TM6519*

Available as: TM6519, 4 Pin TO-8 (T4)
 TN6519, 4 Pin Surface Mount (SM3)
 FP6519, 4 Pin Flatpack (FP4)
 BX6519, Connectorized Housing (H1)

Features

- Output Power: >+19 dBm Typical
- High Third Order Intercept: +34 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 - 500 MHz	10 - 500 MHz
Gain (dB)	14.3	12.0 Min.
Power @ 1 dB Comp. (dBm)	>+19	+17 Min.
Reverse Isolation (dB)	-16	-15 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.6:1	2.0:1 Max.
Noise figure (dB)	<5.5	6.0 Max.
Power Vdc	+15	+15
mA	70	73 Max.

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

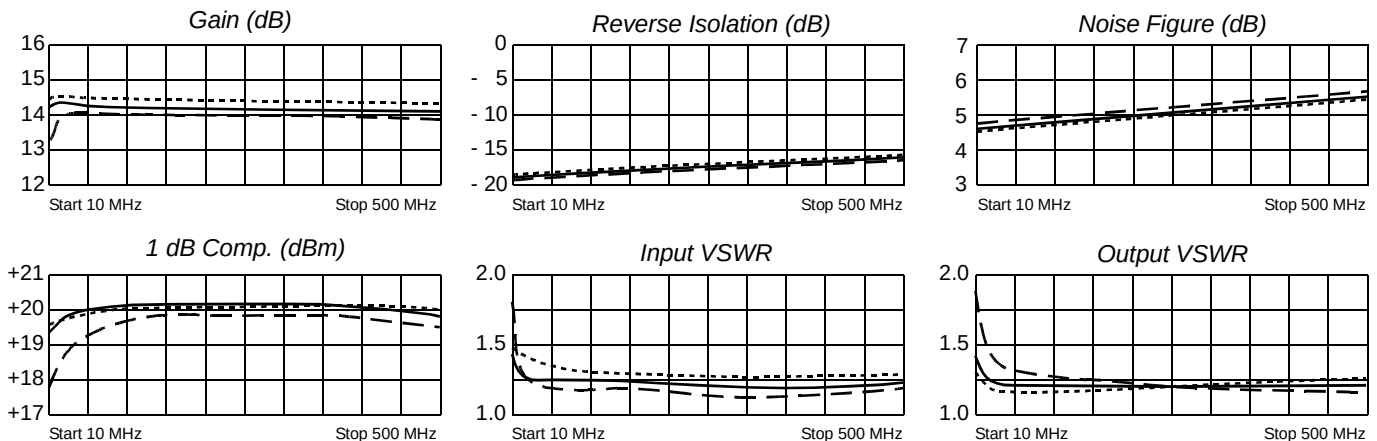
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +45 dBm (Typ.)
 Second Order Two Tone Intercept Point +40 dBm (Typ.)
 Third Order Two Tone Intercept Point +34 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 0.2 Watt (3 µsec Max.)

Typical Performance Data



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

Linear S-Parameters

FREQ. MHz	---- S11 ---- Mag. Deg.	---- S21 ---- Mag. Deg.	---- S12 ---- Mag. Deg.	---- S22 ---- Mag. Deg.
5	.17 -109	5.21 -164	.11 18	.22 135
10	.12 -135	5.33 -174	.11 9	.13 139
50	.09 -179	5.39 172	.12 1	.09 160
100	.09 168	5.39 162	.12 - 1	.08 156
200	.07 119	5.40 142	.12 - 4	.07 150
300	.06 73	5.39 122	.13 - 9	.07 138
400	.07 17	5.38 102	.14 - 15	.07 133
500	.08 - 30	5.34 82	.15 - 22	.08 121



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