

RF AMPLIFIER

MODEL *TM6520*

Available as: TM6520, 4 Pin TO-8 (T4)
 TN6520, 4 Pin Surface Mount (SM3)
 FP6520, 4 Pin Flatpack (FP4)
 BX6520, Connectorized Housing (H1)

Features

- High Efficiency: 13 dBm Typical @ 170 mW DC
- Low Noise Figure: <3.5 dB 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	5 - 500 MHz	5 - 500 MHz
Gain (dB)	14.5	13.5 Min.
Power @ 1 dB Comp. (dBm)	+13	+11.5 Min.
Reverse Isolation (dB)	-17	-16 Max.
VSWR In	<1.3:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise Figure (dB)	<3.5	4.5 Max.
Power Vdc	+5	+5
mA	33	36 Max.

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

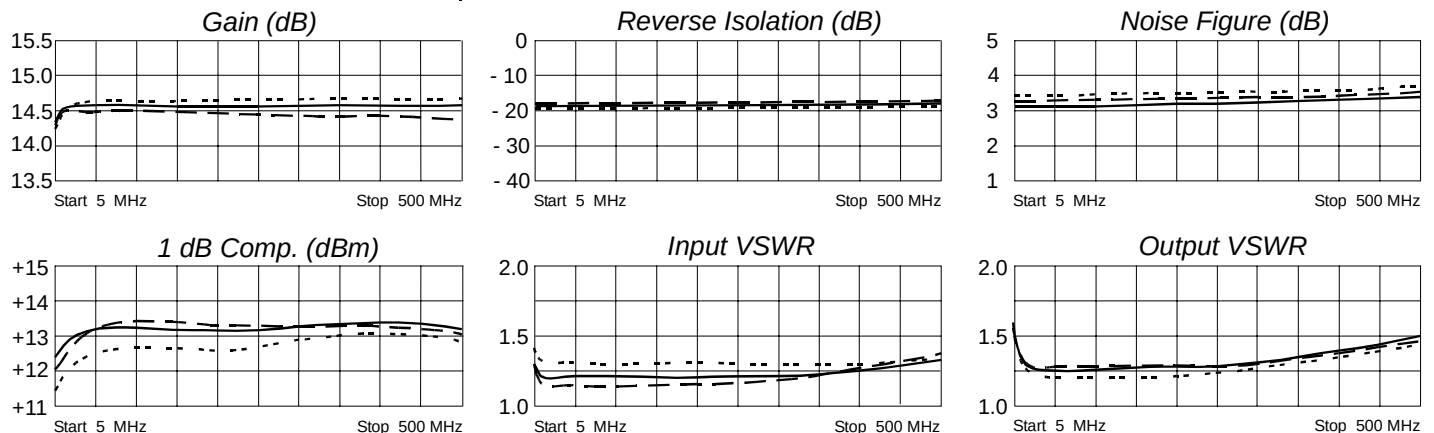
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point..... +40 dBm (Typ.)
 Second Order Two Tone Intercept Point..... +34 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+27 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 + 10 Volts
 Continuous RF Input Power + 13 dBm
 Short Term RF Input Power..... 50 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

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
5	.15	-74	5.43	-167	.10	14	.20	124
50	.06	-160	5.52	171	.11	0	.05	151
100	.06	-162	5.51	161	.11	-3	.05	152
200	.05	-149	5.49	140	.11	-8	.03	158
300	.07	-128	5.49	120	.12	-12	.03	171
400	.10	-123	5.47	99	.13	-19	.03	176
500	.14	-130	5.41	78	.14	-27	.04	-179



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