

RF AMPLIFIER

MODEL *TM6521*

Available as: TM6521, 4 Pin TO-8 (T4)
 TN6521, 4 Pin Surface Mount (SM3)
 FP6521, 4 Pin Flatpack (FP4)
 BX6521, Connectorized Housing (H1)

Features

- High Gain: +30 dB Typical
- Low Noise Figure: <3.0 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)	30	28 Min.
Power @ 1 dB Comp. (dBm)	+9	+7 Min.
Reverse Isolation (dB)	-34	-33 Max.
VSWR In	<1.25:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	<3.0	4.0 Max.
Power Vdc	+15	+15
mA	36	40 Max.

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

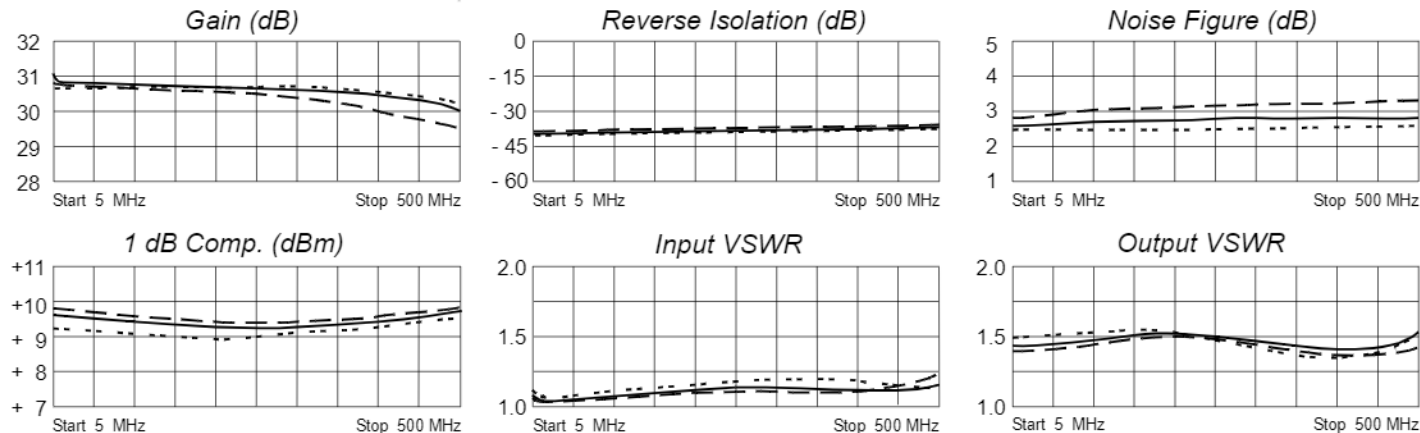
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +36 dBm (Typ.)
 Second Order Two Tone Intercept Point +30 dBm (Typ.)
 Third Order Two Tone Intercept Point +22 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 0.5 Watt (3 μ sec 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	.03	-113	35.56	3	.01	5	.18	-172
50	.02	-150	34.77	-24	.01	0	.19	-176
100	.03	-161	34.64	-48	.01	5	.20	-174
200	.05	160	34.41	-96	.01	-3	.21	-179
300	.06	112	34.10	-146	.01	-5	.19	174
400	.06	40	33.10	162	.01	-7	.17	177
500	.08	-65	31.40	106	.02	-22	.20	160
600	.17	-147	26.97	42	.02	-37	.26	78



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 11/15/04

www.spectrummicrowave.com Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001