

RF AMPLIFIER

MODEL *TM6523*

Available as: TM6523, 4 Pin TO-8 (T4)
 TN6523, 4 Pin Surface Mount (SM3)
 FP6523, 4 Pin Flatpack (FP4)
 BX6523, Connectorized Housing (H1)

Features

- High Gain: 25.5 dB Typical
- Medium Output Power: +16 dBm Typical
- Operating Temp. - 55 °C to +85 °C
- Environmental Screening Available

Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +40 dBm (Typ.)
 Second Order Two Tone Intercept Point +35 dBm (Typ.)
 Third Order Two Tone Intercept Point +26 dBm (Typ.)

Specifications

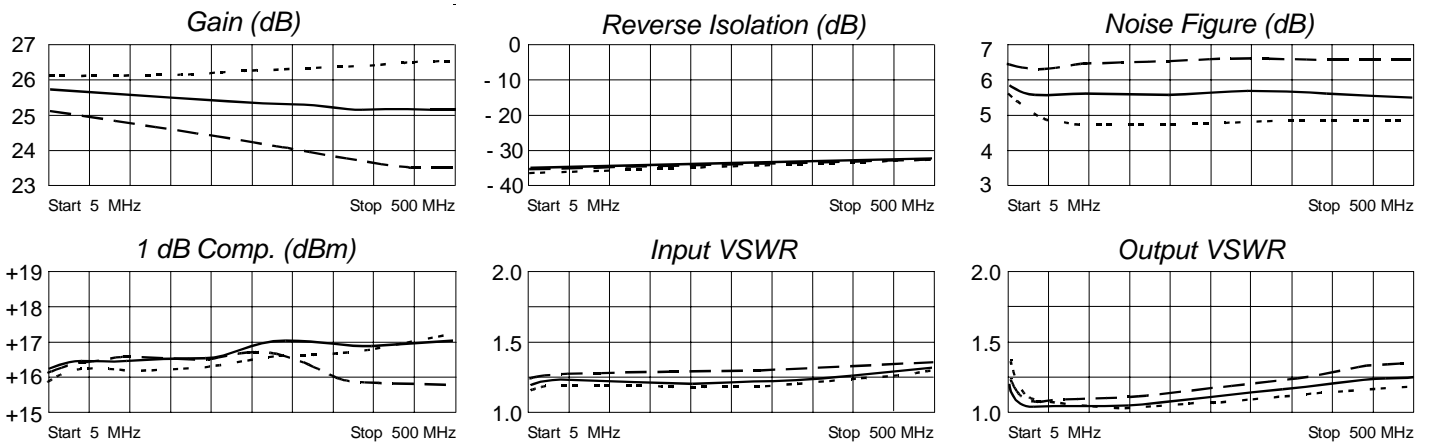
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	5 - 500 MHz	5 - 500 MHz
Gain (dB)	25.5	23.0 Min.
Power @ 1 dB Comp. (dBm)	+16	+14.0 Min.
Reverse Isolation (dB)	-33	-32 Max.
VSWR In	<1.3:1	2.0:1 Max.
VSWR Out	<1.3:1	2.0:1 Max.
Noise figure (dB)	5.5	7.0 Max.
Power Vdc	+15	+15
mA	75	80 Max.

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 μsec Max.)

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

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	.10	14	19.48	9	.02	12	.10	103
50	.11	-1	19.27	-17	.02	-0	.02	66
100	.10	-4	19.09	-35	.02	1	.02	59
200	.11	-2	18.74	-70	.02	5	.04	64
300	.11	-2	18.47	-104	.02	1	.07	47
400	.13	-6	18.31	-139	.02	0	.09	22
500	.14	-19	18.39	-173	.02	-2	.11	-11



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