

RF AMPLIFIER

MODEL *TM6513*

Available as: TM6513, 4 Pin TO-8 (T4)
 TN6513, 4 Pin Surface Mount (SM3)
 FP6513, 4 Pin Flatpack (FP4)
 BX6513, Connectorized Housing (H1)

Features

- 24 Volt Operation
- Output Power: 16.5 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	5-500 MHz	5-500 MHz
Gain (dB)	17	15.5 Min.
Power @ 1 dB Comp. (dBm)	16.5	15.0 Min.
Reverse Isolation (dB)	-19	-18 Max.
VSWR In	1.5:1	2.0:1 Max.
Out	1.5:1	2.0:1 Max.
Noise figure (dB)	3.75	5.0 Max.
Power Vdc	+24	+24 Min.
mA	50	53 Max.

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

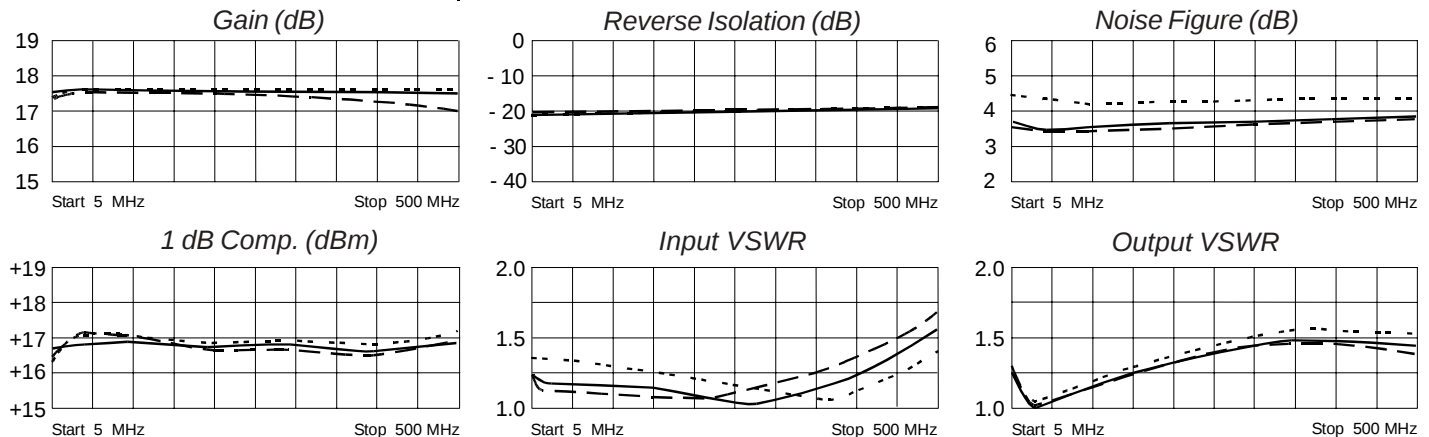
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point.....+47 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+41 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+29 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 + 26 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	.10	-126	7.62	-172	.08	10	.10	113
50	.08	178	7.74	169	.08	-0	.03	-98
100	.07	166	7.71	156	.08	-3	.07	-106
200	.04	154	7.63	132	.08	-5	.14	-126
300	.02	-124	7.59	107	.09	-8	.19	-150
400	.10	-108	7.54	81	.10	-13	.20	-178
500	.21	-128	7.42	54	.11	-20	.17	135



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 4/14/04

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