

RF AMPLIFIER

MODEL *TM6514*

Available as: TM6514, 4 Pin TO-8 (T4)
 TN6514, 4 Pin Surface Mount (SM3)
 FP6514, 4 Pin Flatpack (FP4)
 BX6514, Connectorized Housing (H1)

Features

- Low Noise Figure: < 2.0 dB Typical
- Low Supply Current: 8 mA 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	30 - 200 MHz	30 - 200 MHz
Gain (dB)	16.5	15.0 Min.
Power @ 1 dB Comp. (dBm)	>-2	-3.0 Min.
Reverse Isolation (dB)	-20	-18.5 Max.
VSWR In	<1.4:1	2.0:1 Max.
Out	<1.2:1	2.0:1 Max.
Noise figure (dB)	<2.0	3.0 Max.
Power Vdc	+15	+15
mA	8	9 Max.

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

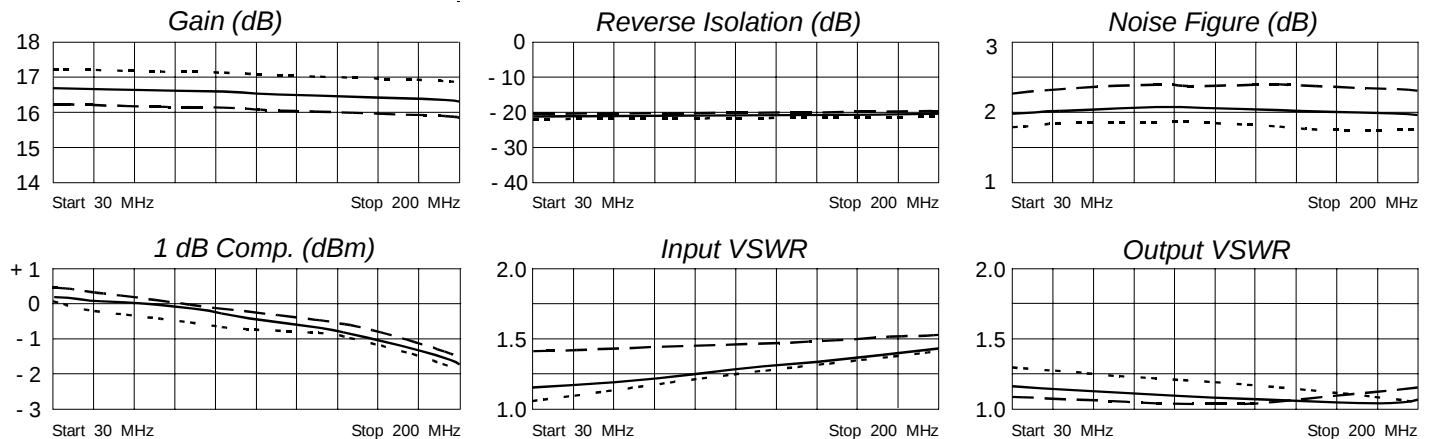
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point +17 dBm (Typ.)
 Second Order Two Tone Intercept Point +11 dBm (Typ.)
 Third Order Two Tone Intercept Point +11 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 µsec Max.)

Typical Performance Data



Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
10	.07	171	6.82	179	.10	2	.09	-179
30	.07	147	6.80	174	.10	0	.09	174
50	.08	135	6.80	169	.09	- 1	.08	170
100	.11	100	6.75	158	.10	- 4	.06	156
150	.14	75	6.64	147	.10	- 7	.04	154
200	.18	56	6.50	136	.10	- 8	.01	-120
300	.24	24	6.21	114	.10	-16	.09	- 74



Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 11/12/04

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