

RF AMPLIFIER

MODEL *TM6512*

Available as: TM6512, 4 Pin TO-8 (T4)
 TN6512, 4 Pin Surface Mount (SM3)
 FP6512, 4 Pin Flatpack (FP4)
 BX6512, Connectorized Housing (H1)

Features

- High Gain: 21 dB Typical
- Low Noise Figure: 2.5 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)	21	19.0 Min.
Power @ 1 dB Comp. (dBm)	+10.0	+8.0 Min.
Reverse Isolation (dB)	- 22	- 20 Max.
VSWR In	<1.5:1	2.0:1 Max.
Out	<1.25:1	2.0:1 Max.
Noise figure (dB)	2.5	3.5 Max.
Power Vdc	+15	+15
mA	23	26 Max.

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

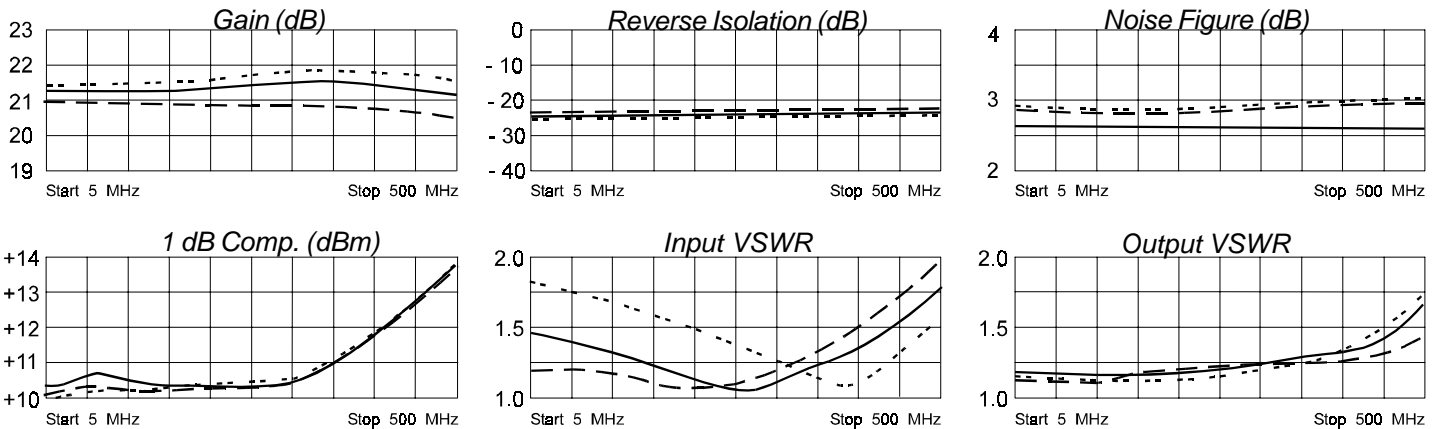
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +33 (Typ.)
 Second Order Two Tone Intercept Point +27 (Typ.)
 Third Order Two Tone Intercept Point +21 (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



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	.17	-152	11.53	-173	.06	8	.13	142
10	.17	-166	11.69	-178	.06	6	.09	147
50	.16	174	11.77	168	.06	0	.06	154
100	.14	164	11.78	154	.06	- 1	.05	138
200	.08	154	11.83	127	.06	- 2	.02	92
300	.04	-139	11.92	99	.06	- 5	.03	- 9
400	.16	-112	11.99	67	.07	- 9	.05	4
500	.32	-133	11.51	31	.08	- 18	.19	6



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