

RF AMPLIFIER

MODEL *TM 6503*

Available as: TM6503, 4 Pin TO-8 (T4)
 TN6503, 4 Pin Surface Mount (SM3)
 FP6503, 4 Pin Flatpack (FP4)
 BX6503, Connectorized Housing (H1)

Features

- Low Noise Figure: 3.5 dB Typical
- High Gain: + 16.5 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)	16.5	15.5 Min.
Power @ 1 dB Comp. (dBm)	+1.5	0.0 Min.
Reverse Isolation (dB)	-20	-18 Max.
VSWR In	<1.75:1	2.0:1 Max.
Out	<1.5:1	2.0:1 Max.
Noise figure (dB)	3.5	4.5 Max.
Power Vdc	+15	+15
mA	10	12 Max.

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

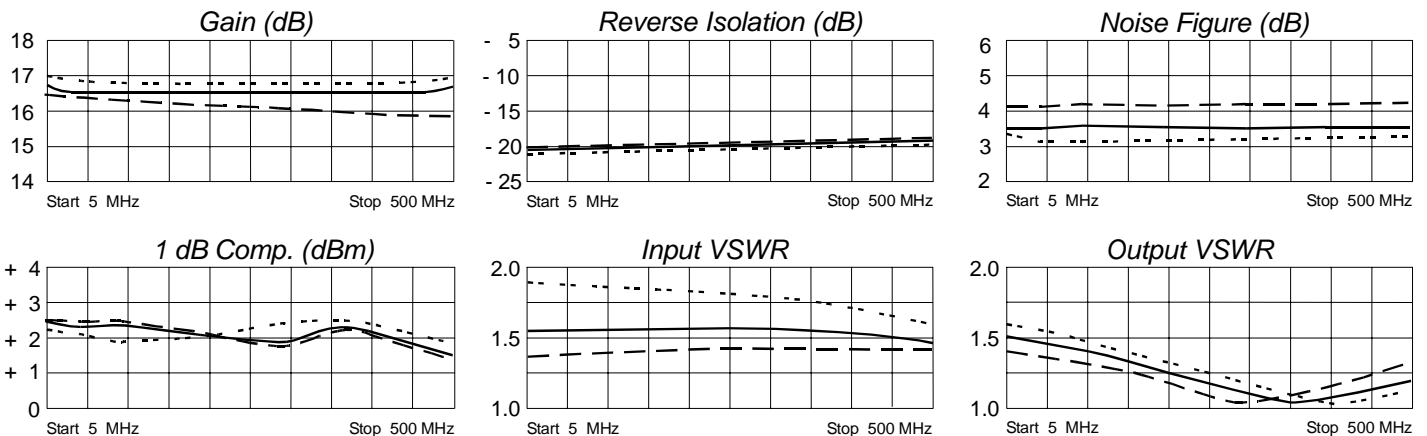
Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +22 dBm (Typ.)
 Second Order Two Tone Intercept Point +16 dBm (Typ.)
 Third Order Two Tone Intercept Point +14 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 (1MinuteMax.)
 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
5	.23	-177	6.84	-178	.09	4	.21	-176
50	.23	165	6.76	169	.09	-1	.19	171
100	.23	149	6.73	158	.09	-1	.18	162
200	.23	120	6.71	136	.10	-3	.12	147
300	.22	90	6.67	114	.10	-8	.06	147
400	.21	60	6.69	92	.11	-13	.03	-118
500	.19	24	6.78	69	.11	-19	.08	-114



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