

RF AMPLIFIER

MODEL *TM9512*

Available as: TM9512, 4 Pin TO-8 (T4)
 TN9512, 4 Pin Surface Mount (SM3)
 BX9512, SMA Connectorized Housing (H1)

Features

- Higher Power: 21 dBm Typical
- Lower +12 Vdc Supply
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 1000 MHz	10 - 1000 MHz
Gain (dB)	13	11 Min.
Power @ 1 dB Comp. (dBm)	+21	+19 Min.
Reverse Isolation (dB)	-15	-13 Max.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	4.5	6.5 Max.
Power Vdc	+12	+12
mA	90	100 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 +50 dBm (Typ.)
 Second Order Two Tone Intercept Point +45 dBm (Typ.)
 Third Order Two Tone Intercept Point +35 dBm (Typ.)

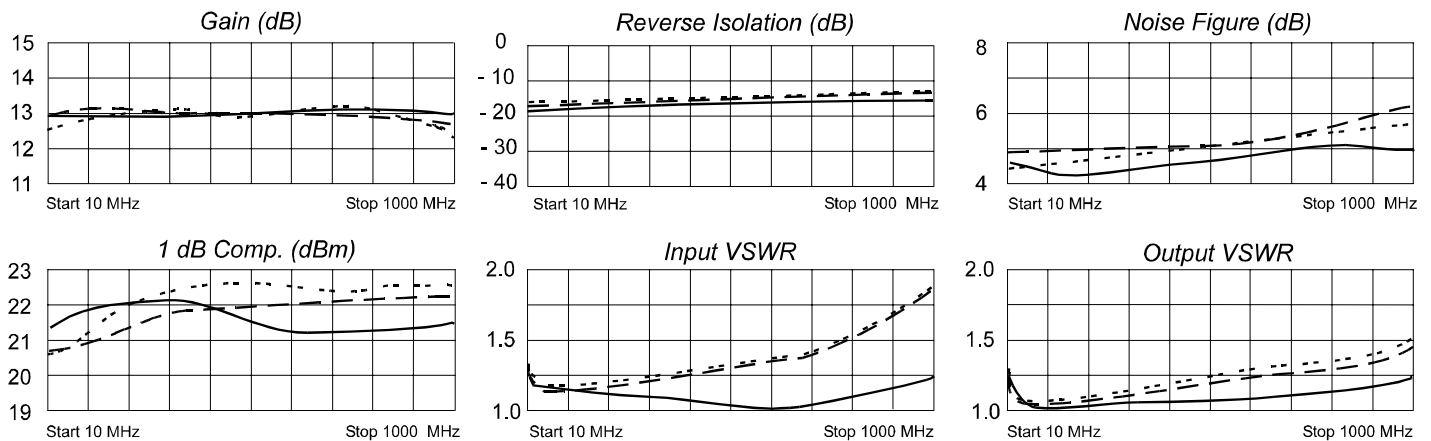
Maximum Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +15 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.)

MTBF Calculation for Ground Benign Environment

@ 25 °C 4,269,871.84 hrs

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
10	.29	-166	4.21	-176	.13	6	.32	173
50	.28	173	4.21	173	.13	1	.30	170
100	.28	162	4.24	163	.14	0	.30	163
200	.27	141	4.20	146	.14	-0	.27	145
300	.25	118	4.19	130	.15	-4	.22	129
400	.24	93	4.20	113	.16	-8	.17	110
500	.23	65	4.18	96	.17	-13	.12	88
600	.23	32	4.19	78	.18	-19	.05	38
700	.24	-1	4.17	61	.19	-27	.06	-68
800	.27	-35	4.20	42	.19	-35	.13	-104
900	.32	-72	4.20	23	.19	-43	.22	-123
1000	.36	-107	4.12	-0	.19	-50	.28	-142



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