

RF AMPLIFIER

MODEL *TM9713*

Available as: TM9713, 4 Pin TO-8 (T4)
 TN9713, 4 Pin Surface Mount (SM3)
 FP9713, 4 Pin Flatpack (FP4)
 BX9713, Connectrized Housing (H1)
 PN9713, Reduced Size Surface Mount (SM11)

Features

- High Output Power: +21 dBm Typical
- GaAs FET Design
- 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	500 - 2000 MHz	500 - 2000 MHz
Gain (dB)	11	8.5 Min.
Power @ 1 dB Comp. (dBm)	+21.0	+19.0 Min.
Reverse Isolation (dB)	-17.5	-16.0 Max.
VSWR In	1.8:1	2.0:1 Max.
Out	1.8:1	2.0:1 Max.
Noise figure (dB)	4.5	5.5 Max.
Power Vdc	+15	+15
mA	100	110 Max.

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

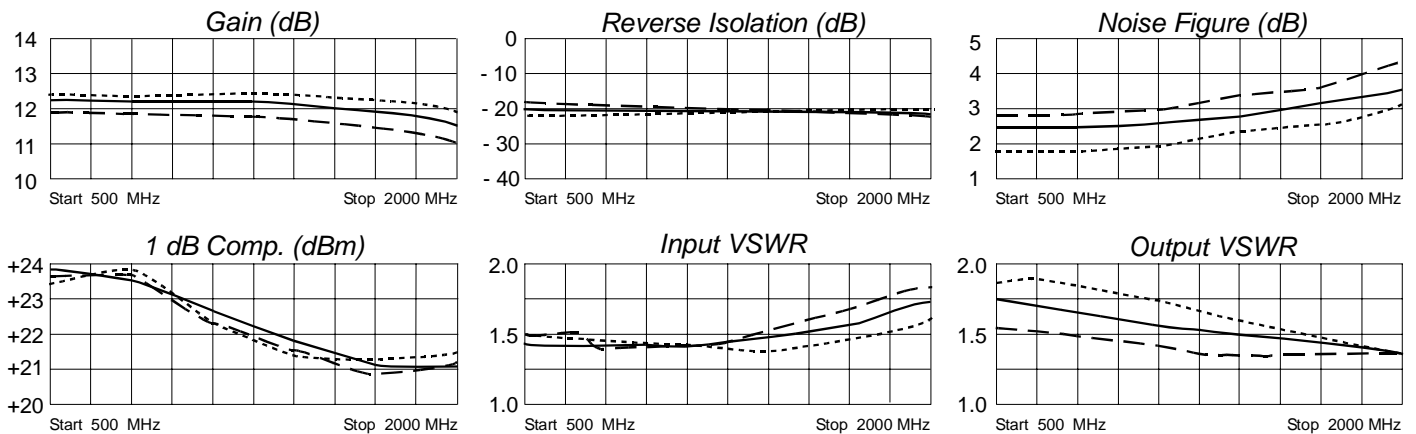
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point.....+50 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+44 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+34 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 + 18 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
500	.18	169	3.88	144	.1070	- 23	.29	128
600	.17	159	3.87	134	.1071	- 28	.28	119
800	.16	140	3.88	116	.1065	- 39	.27	99
1000	.16	124	3.88	98	.1049	- 51	.25	77
1200	.14	112	3.87	79	.1040	- 63	.23	54
1400	.14	104	3.92	60	.1010	- 76	.21	29
1600	.14	103	3.89	40	.0976	- 91	.18	- 2
1800	.16	98	3.76	17	.0915	- 107	.16	- 38
2000	.18	89	3.66	- 7	.0885	- 123	.17	- 80



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