

RF AMPLIFIER

MODEL *TM9720*

Available as: TM9720, 4 Pin TO-8 (T4)
 TN9720, 4 Pin Surface Mount (SM3)
 BX9720, Connectorized Housing (H1)

Features

- Output Power: +18.5 dBm Typical
- Gain: 9.5 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	10 - 2000 MHz	10 - 2000 MHz
Gain (dB)	9.5	8 Min.
Power @ 1 dB Comp. (dBm)	18.5	17.5 Min.
Reverse Isolation (dB)	-16	-15 Max.
VSWR In	1.5	2:0 Max.
Out	1.5	2:0 Max.
Noise Figure (dB)	2.8	4.0 Max.
Power Vdc	+15	+15
mA	75	90 Max.

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

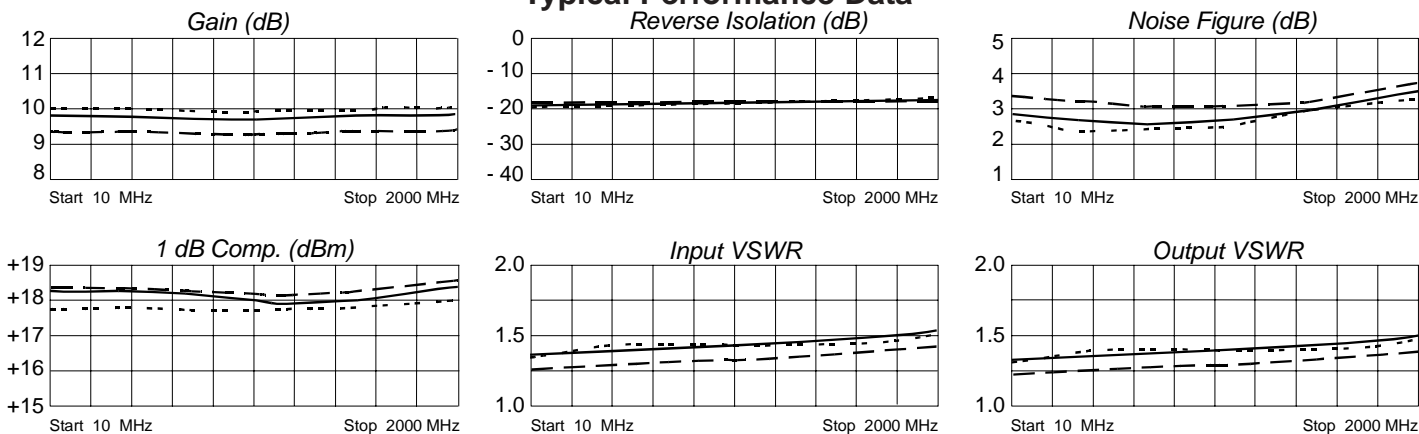
Typical Intermodulation Performance at 25 ° C

Second Order Harmonic Intercept Point+45 dBm (Typ.)
 Second Order Two Tone Intercept Point.....+40 dBm (Typ.)
 Third Order Two Tone Intercept Point.....+30 dBm (Typ.)

Maximum Ratings

Ambient Operating Temperature -55°C to + 100 °C
 Storage Temperature -62°C to + 125 °C
 Case Temperature + 150 °C
 DC Voltage + 18 Volts
 Continuous RF Input Power + 18 dBm
 Short Term RF Input Power ... 200 Milliwatts (1 Minute Max.)
 Maximum Peak Power 0.2 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
10	.13	-128	3.26	-172	.1074	2	.20	-177
25	.09	-155	3.27	-179	.1034	0	.21	-180
50	.09	-170	3.27	178	.1027	-3	.21	177
100	.09	-176	3.25	173	.1027	-1	.22	170
200	.09	-178	3.25	164	.1065	-3	.21	161
400	.09	176	3.21	147	.1070	-12	.21	143
600	.09	174	3.19	131	.1109	-17	.21	128
800	.09	166	3.19	115	.1126	-25	.20	114
1000	.09	160	3.19	99	.1154	-33	.20	103
1200	.08	154	3.18	82	.1168	-44	.20	98
1400	.10	147	3.19	65	.1150	-50	.21	88
1600	.11	133	3.26	45	.1153	-63	.22	81
1800	.13	104	3.29	25	.1211	-72	.24	72
2000	.15	76	3.34	3	.1223	-88	.24	57



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