

RF AMPLIFIER

MODEL TR9789

Available as: TR9789, 4 Pin TO-8B (T8)
 RN9789, 4 Pin Surface Mount (SM19)
 BR9789, Connectorized Housing (H2)

Features

- High Output Power: +28 dBm Typical
- High Gain: 20 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 (MHz)	100 - 2500 MHz	100 - 2500 MHz
Gain (dB)	20	18.5 Min.
Power @ 1 dB Comp. (dBm)	+28	+27 Min.*
Reverse Isolation (dB)	-35	-33 Max.
VSWR In	1.5:1	2.0:1 Max.
VSWR Out	1.5:1	2.0:1 Max.
Noise Figure (dB)	3.5	4.5 Max.
Power Vdc	+15	+15
mA	270	280 Max.

Note: Care should always be taken to effectively ground the case of each unit.
 * Can be 0.5 dBm lower above 2000 MHz.

Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point +61 dBm (Typ.)
 Second Order Two Tone Intercept Point +55 dBm (Typ.)
 Third Order Two Tone Intercept Point +41 dBm (Typ.)

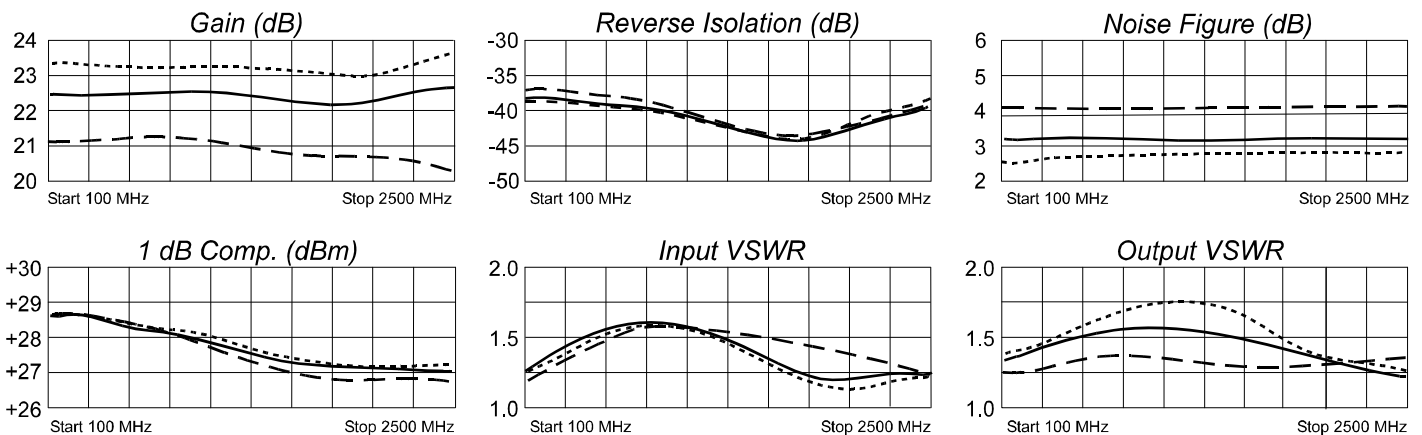
Maximum (No Damage) Ratings

Ambient Operating Temperature -55°C to +100 °C
 Storage Temperature -62°C to +125 °C
 Case Temperature +125 °C
 DC Voltage +17 Volts
 Continuous RF Input Power +17 dBm
 Short Term RF Input Power.... 125 Milliwatts (1 Minute Max.)
 Maximum Peak Power..... 0.5 Watt (3 µsec Max.)

Revision: 12/18/2015

ECN (12-18-15): Current increase from 230 mA to 270 mA

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
100	0.11	-169	13.54	-19	0.01	-11	0.14	175
340	0.15	179	13.56	-75	0.01	-44	0.16	150
580	0.21	157	13.55	-129	0.01	-72	0.20	117
820	0.22	119	13.59	176	0.01	-101	0.22	75
1060	0.20	98	13.49	121	0.01	-134	0.23	29
1300	0.16	75	13.10	66	0.01	-171	0.21	-22
1540	0.12	63	12.98	11	0.01	147	0.20	-79
1780	0.09	58	12.92	-44	0.01	97	0.17	-140
2020	0.10	61	12.98	-101	0.01	45	0.17	159
2260	0.11	34	13.29	-161	0.01	-17	0.15	92
2500	0.07	-26	13.37	134	0.01	-58	0.14	15



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