RF AMPLIFIER MODEL QBH-2003

Available as: QBH-2003, SM (E52-Gen2SMT)

Features

- High Power: +18 dBm Typical
- Environmental Screening Available

Maximum Ratings

Ambient Operating Temperature ..... -40ºC to + 85 ºC
Storage Temperature ..... -65ºC to + 125 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 16 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.)

Note: Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

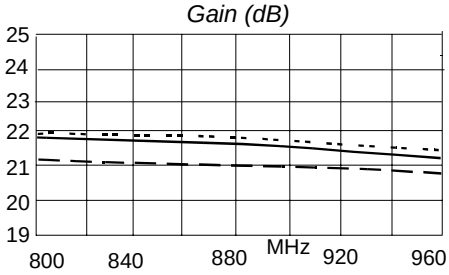
Specifications

CHARACTERISTIC		TYPICAL Ta= 25 ºC	MIN	MAX
Frequency		—	800 MHz	960 MHz
Gain (dB)		—	20	—
Gain vs. Temperature		—	—	—
Gain Flatness		—	—	+/-0.5
Reverse Isolation (dB)		—	—	—
VSWR	In	1.5:1	—	—
	Out	1.5:1	—	—
1 dB Compression (dBm)		—	+18	—
Output Intercept point				
	3rd Order	—	+30	—
	2nd Order	—	—	—
Noise Figure (dB)		1.0	—	—
Power	Vdc	5	—	—
	mA	66	—	—

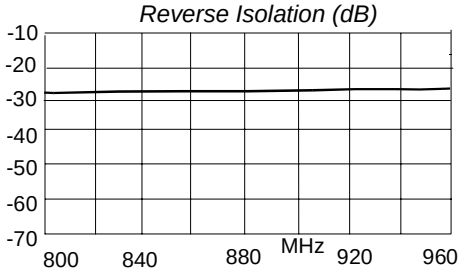
Legend ——— *+ 25 ºC* – – – *+ 85 ºC* - - - - - - *-40 ºC*

Typical Performance Data

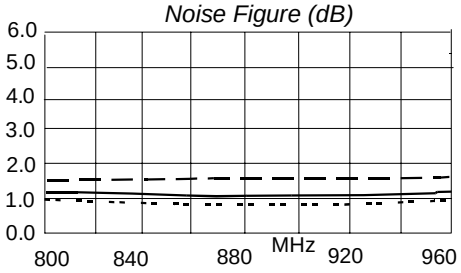
Gain (dB)



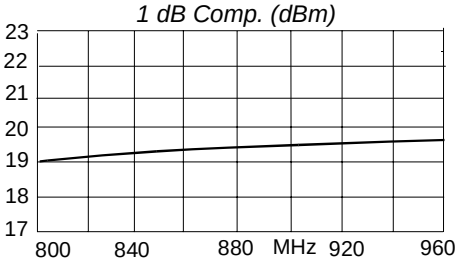
Reverse Isolation (dB)



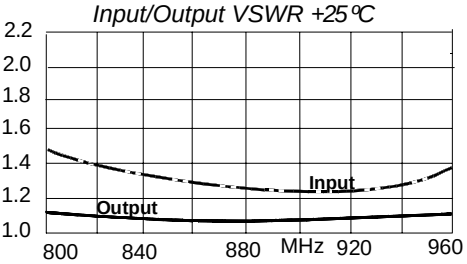
Noise Figure (dB)



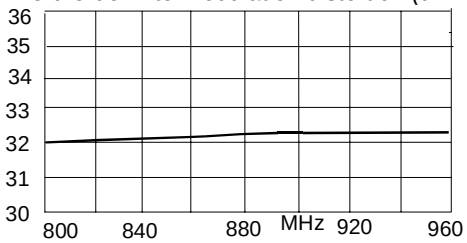
1 dB Comp. (dBm)



Input/Output VSWR +25ºC



3rd order intermodulation distortion (dBm)



Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 Ang
800	-14.7	130.0	21.7	21.2	-26.7	-92.2	-24.7	-89.0
830	-16.1	115.6	21.7	12.7	-26.6	-98.5	-26.3	-109.5
850	-17.2	103.0	21.6	7.0	-26.5	-103.0	-27.5	-123.5
870	-18.2	86.6	21.6	1.3	-26.4	-106.7	-28.1	-137.7
890	-19.0	64.2	21.5	-4.5	-26.4	-11.4	-27.9	-153.0
910	-19.2	36.1	21.4	-10.3	-26.4	-115.0	-26.9	-167.7
930	-18.6	7.7	21.4	-16.1	-26.4	-119.7	-25.8	177.8
950	-17.2	-15.4	21.3	-21.9	-26.5	-124.1	-24.6	164.7
960	-16.6	-24.5	21.2	-24.8	-26.4	-126.4	-24.0	158.0

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03/11/05

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