

RF AMPLIFIER

Available as: QBH-4013, 4 Pin TO-8 (080-10114-0001)
QBH-9-4013, Connectorized Housing (ES E52-1501)

MODEL QBH-4013

Features

- Wide Bandwidth 30-3000 MHz
- High Gain: 19.0 dB Typical
- Environmental Screening Available

Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	30 - 3000 MHz	—
Gain (dB)	19.0 ±1.0	—
Gain vs. Temperature	—	—
Gain Flatness	1.0	—
Reverse Isolation (dB)	-30	—
VSWR In	2.0:1	—
Out	2.0:1	—
1 dB Compression (dBm)	+15.0	—
Output Intercept point		
3rd Order	+25	—
2nd Order	+38	—
Noise Figure (dB)	4.0	—
Power Vdc	+15	—
mA	90	—

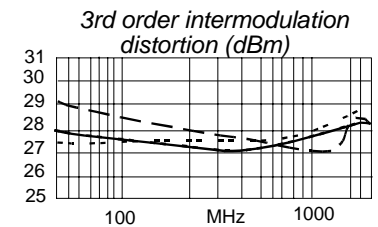
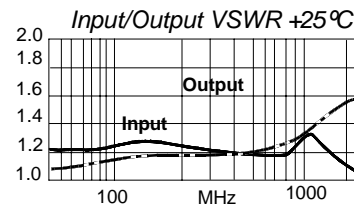
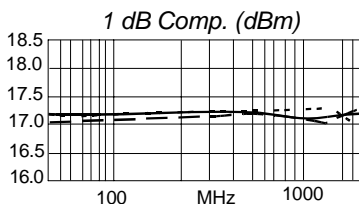
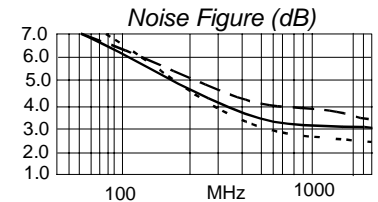
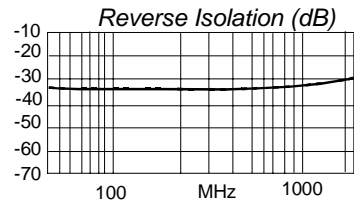
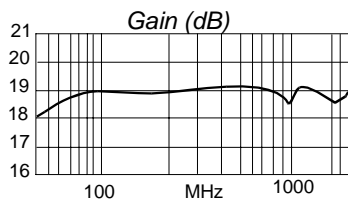
Maximum Ratings

Ambient Operating Temperature -55°C to +125 °C
Storage Temperature -65°C to + 150 °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.)

Note:

1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.
2. Noise Figures increase below 500 MHz

Typical Performance Data



Legend ——— +25 °C - - - - +85 °C - - - - - -55 °C

Linear S-Parameters Data

FREQ. MHz	-- S11 --		-- S21 --		-- S12 --		-- S22 --	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
30	-28.6	18.3	18.1	14.4	-34.6	-4.4	-21.0	-120.4
100	-23.1	11.0	19.1	-12.7	-35.5	-10.2	-19.1	-168.0
160	-21.6	-3.1	18.9	-25.7	-35.2	-17.1	-19.0	174.7
250	-22.5	-17.2	19.1	-42.5	-35.5	-26.3	-19.7	157.5
800	-18.8	-45.4	18.7	-148.3	-35.1	-78.1	-21.6	106.4
1400	-15.1	-104.0	19.1	104.8	-34.4	-145.6	-18.5	42.3
1900	-13.6	-150.1	18.7	10.4	-33.4	156.2	-23.0	-7.1
2500	-13.2	137.8	18.5	-98.6	-32.0	76.0	-33.4	-88.5
3000	-14.7	65.4	19.0	162.9	-30.5	11.3	-22.4	71.1



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