RF AMPLIFIER MODEL QBH-4013

Available as: QBH-4013, 4 Pin TO-8 (T4)
QBH-9-4013, Connectorized Housing (ES E52-1501)

Features

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

Maximum Ratings

Ambient Operating Temperature .....-55ºC to +125 ºC
Storage Temperature ..... -65ºC to + 150 ºC
Case Temperature ..... + 125 ºC
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.)

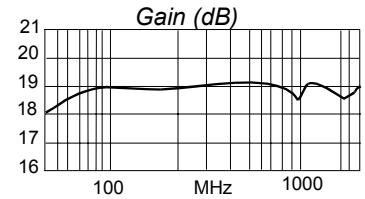
Note:

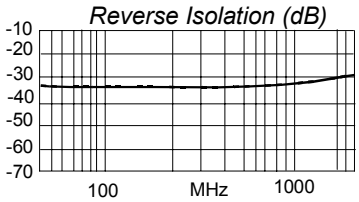
1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.
2. Noise Figures increase below 500 MHz

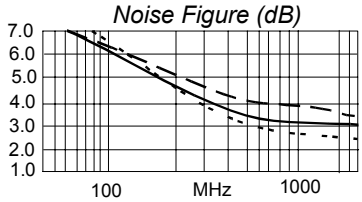
Specifications

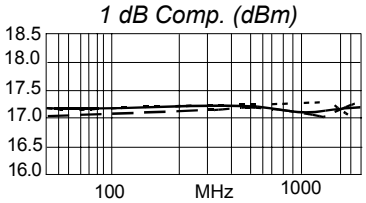
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	30 - 3000 MHz	—
Gain (dB)	19.0 ±1.0	—
Gain vs. Temperature	—	—
Gain Flatness	1.0	—
Reverse Isolation (dB)	-30	—
VSWR In Out	2.0:1 2.0:1	—
1 dB Compression (dBm)	+15.0	—
Output Intercept point 3rd Order 2nd Order	 +25 +38	—
Noise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

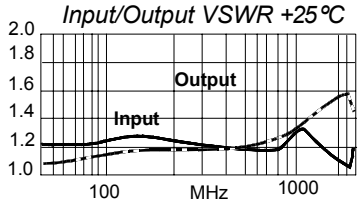
Typical Performance Data

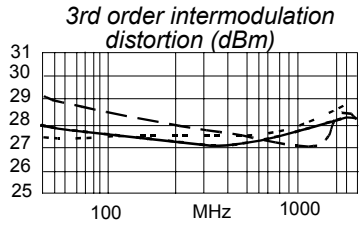












Legend ——— + 25 ºC – – – + 85 ºC - - - - - - -55 ºC

Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 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

SPECTRUM MICROWAVE INC. A Spectrum Control Business

Spectrum Microwave · 2144 Franklin Drive N.E. · Palm Bay, Florida 32905 · PH (888) 553-7531 · Fax (888) 553-7532 03/11/05

www.SpectrumMicrowave.com *Spectrum Microwave (Europe) · 2707 Black Lake Place · Philadelphia, Pa. 19154 · PH (215) 464-4000 · Fax (215) 464-4001*