RF AMPLIFIER MODEL QBH-215

Available as: QBH-215, F-Pack (E52-5006)

Features

- High Gain: 12.3 dB Typical
- High Power: +26 dBm Typical
- Operating Temp. - 55 ºC to +71 ºC
- Environmental Screening Available

Maximum Ratings

Ambient Operating Temperature ..... -55ºC to + 105 ºC
Storage Temperature ..... -65ºC to + 150 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 16.5 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.)

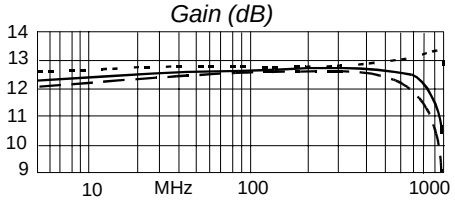
Note: Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Specifications

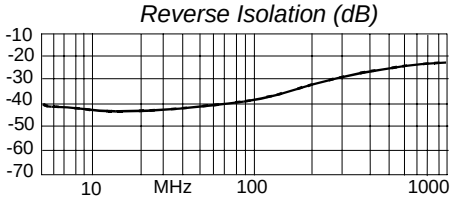
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +71 ºC
Frequency	10 - 500 MHz	10 - 500 MHz
Gain (dB)	12.3 ± 0.7	—
Gain vs. Temperature	—	+0.4/-0.8 Max.
Gain Flatness	1.0	1.0 Max.
Reverse Isolation (dB)	-25	-25 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+26	+25 Min.
Output Intercept point		
3rd Order	+35	+35 Min.
2nd Order	+42	+42 Min.
Noise Figure (dB)	7.8	8.4 Max.
Power Vdc	+15	+15
Power mA	165	165 Max.

Typical Performance Data

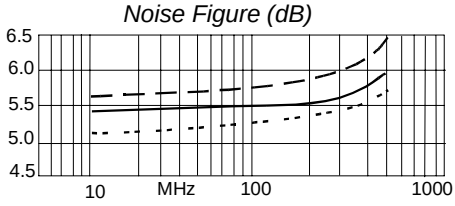
Gain (dB)



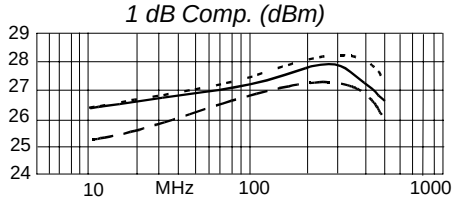
Reverse Isolation (dB)



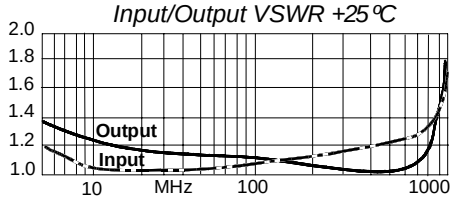
Noise Figure (dB)



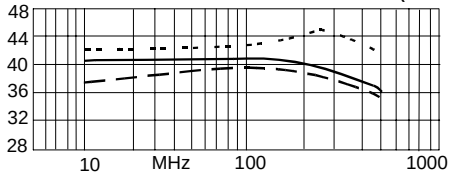
1 dB Comp. (dBm)



Input/Output VSWR +25ºC



3rd order intermodulation distortion (dBm)



Legend ——— + 25 ºC – – – + 71 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
10	-29.5	-72.0	12.6	-174.6	-42.8	34.1	-20.0	141.6
40	-30.3	4.2	12.6	169.4	-41.8	30.5	-24.2	150.0
60	-28.5	8.4	12.7	162.2	-40.3	35.7	-25.1	147.2
70	-27.9	10.0	12.7	158.8	-39.7	34.1	-25.4	144.5
90	-26.8	8.6	12.7	152.1	-38.5	36.0	-26.0	139.4
100	-26.1	7.9	12.7	148.7	-37.8	35.0	-26.3	135.8
300	-20.7	-13.4	12.7	82.3	-29.8	4.6	-33.4	61.5
400	-19.2	-32.3	12.7	48.4	-27.7	-17.3	-35.4	6.7
500	-18.1	-49.3	12.7	14.0	-26.1	-40.1	-30.4	-58.4

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