RF AMPLIFIER MODEL QBH-271

Available as: QBH-271, F-Pack (E52-5006)

Features

- High Gain: 13.5 dB Typical
- High Power: +27 dBm Typical
- Operating Temp. - 55 ºC to +85 ºC
- Environmental Screening Available

Maximum Ratings

Ambient Operating Temperature ..... -55ºC to + 125 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.)

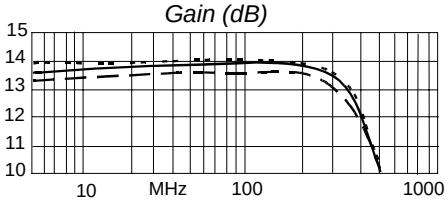
Note: Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

Specifications

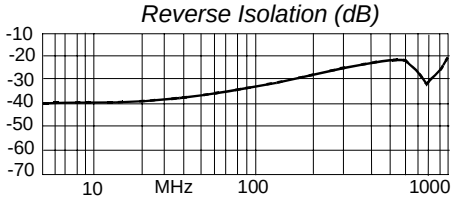
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -55 ºC to +85 ºC
Frequency	10 - 150 MHz	10 - 150 MHz
Gain (dB)	13.5 ± 0.5	—
Gain vs. Temperature	—	+0.3/-0.5 Max.
Gain Flatness	0.5	0.5 Max.
Reverse Isolation (dB)	-26	-26 Min.
VSWR In	1.5:1	1.5:1 Max.
VSWR Out	1.5:1	1.5:1 Max.
1 dB Compression (dBm)	+27	+26 Min.
Output Intercept point		
3rd Order	+39	+39 Min.
2nd Order	+45	+45 Min.
Noise Figure (dB)	6.5	7.1 Max.
Power Vdc	+15	+15
mA	105	105 Max.

Typical Performance Data

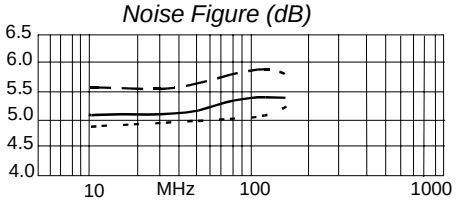
Gain (dB)



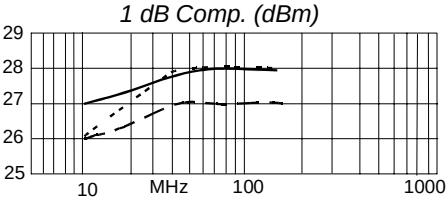
Reverse Isolation (dB)



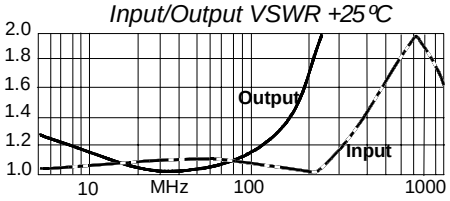
Noise Figure (dB)



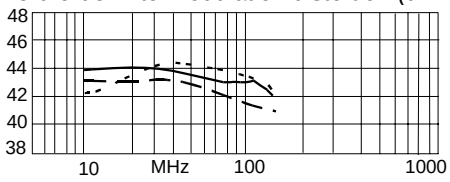
1 dB Comp. (dBm)



Input/Output VSWR +25ºC



3rd order intermodulation distortion (dBm)



Legend ——— *+ 25 ºC* – – – *+ 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
10	-29.6	7.6	13.7	-178.8	-40.1	25.8	-22.9	114.1
30	-27.1	-0.9	13.7	169.5	-38.8	30.2	-35.7	121.4
60	-27.0	-16.6	13.7	156.1	-36.2	36.4	-31.7	-98.0
90	-27.5	-34.2	13.7	143.4	-33.6	36.9	-24.5	-103.1
120	-28.9	-48.6	13.8	130.6	-31.6	32.0	-20.4	-111.6
150	-31.2	-72.0	13.8	117.7	-29.8	26.9	-17.4	-121.5

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