RF AMPLIFIER MODEL QBH-8171

Available as: QBH-8171, Hybrid SM (E52-19422)

Features

- High Gain: 14.0 dB Typical
- High Power: +27 dBm Typical
- Operating Temp. - 40 ºC to +70 ºC
- Environmental Screening Available

Specifications

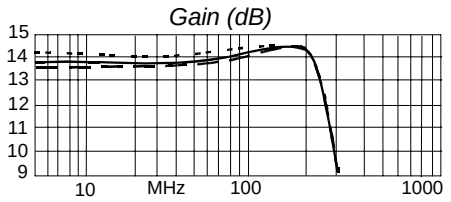
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -40 ºC to +70 ºC
Frequency	10 - 150 MHz	10 - 150 MHz
Gain (dB)	14.0 ±0.5	—
Gain vs. Temperature	—	+0.5/-0.5 Max.
Gain Flatness	0.5	0.6 Max.
Reverse Isolation (dB)	-23.5	-23 Min.
VSWR In	1.5:1	1.6:1 Max.
VSWR Out	1.6:1	1.7:1 Max.
1 dB Compression (dBm)	+27	+26 Min.
Output Intercept point		
3rd Order	+40	+39 Min.
2nd Order	+50	+45 Min.
Noise Figure (dB)	7.5	8.1 Max.
Power Vdc	+15	+15
Power mA	105	108 Max.

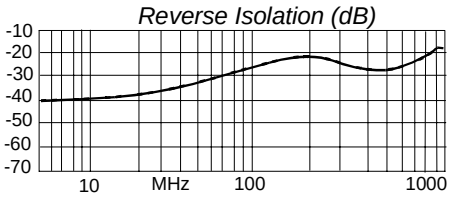
Maximum Ratings

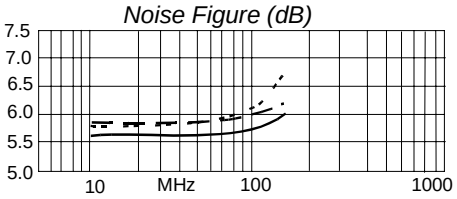
Ambient Operating Temperature ..... -55 ºC to +125 ºC
Storage Temperature ..... -65 ºC to + 150 ºC
Case Temperature ..... + 125 ºC
DC Voltage ..... + 16.5 Volts
Continuous RF Input Power ..... + 13 dBm
Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)
Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

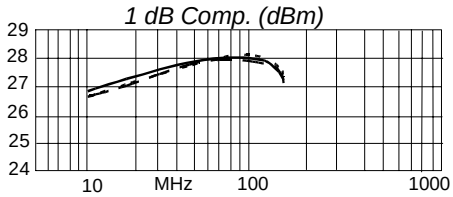
Note:
1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

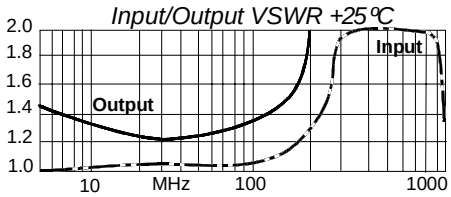
Typical Performance Data

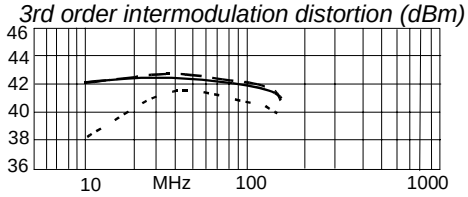












Legend ——— *+ 25 ºC* – – – *+ 70 ºC* - - - - - - *-40 ºC*

Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 Ang
10	-34.1	10.5	13.6	-178.7	-38.9	35.3	-18.5	112.1
40	-29.0	21.7	13.7	159.9	-34.4	44.3	-20.6	74.7
50	-28.9	23.1	13.7	154.1	-33.0	44.9	-20.0	62.8
60	-29.0	25.0	13.7	148.4	-31.7	43.5	-19.3	50.6
80	-29.3	33.5	13.9	136.9	-29.5	39.6	-18.1	27.1
90	-29.5	39.8	13.9	131.1	-28.6	36.9	-17.6	15.0
100	-29.4	47.9	14.0	125.2	-27.8	33.8	-17.1	2.7
120	-28.1	66.3	14.2	113.1	-26.3	26.7	-16.1	-23.2
150	-22.9	82.1	14.4	93.6	-24.4	14.5	-14.4	-66.3

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