RF AMPLIFIER
MODEL QBH-8719

Available as: QBH-8719, Hybrid SM (E52-19422)

Features

- High Gain: 21.5 dB Typical
- High Power: +25 dBm Typical
- Operating Temp. - 40 ºC to +70 ºC
- Environmental Screening Available

Maximum Ratings

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

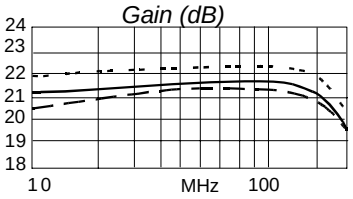
Note:

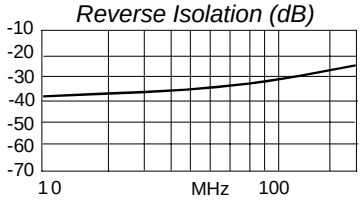
1. Specifications are guaranteed when tested in a 50 Ohm system. Specifications indicated as typical are not guaranteed.

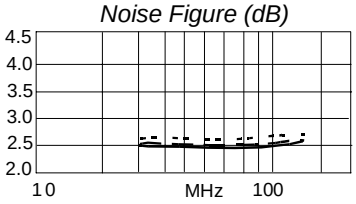
Specifications

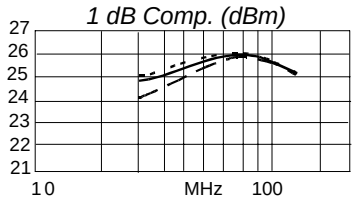
CHARACTERISTIC	TYPICAL Ta= 25 ºC	MIN/MAX Ta = -40 ºC to +70 ºC
Frequency	30 - 145 MHz	30 - 145 MHz
Gain (dB)	21.5 ±1.5	—
Gain vs. Temperature	—	—
Gain Flatness	0.2	1.0 Max.
Reverse Isolation (dB)	-32	-26 Min.
VSWR In	1.2:1	1.5:1 Max.
VSWR Out	1.2:1	1.7:1 Max.
1 dB Compression (dBm)	+25	+23 Min.
Output Intercept point		
3rd Order	+40	+37 Min.
2nd Order	+51	+48 Min.
Noise Figure (dB)	2.5	3.0 Max.
Power Vdc	+15	+15
mA	105	115 Max.

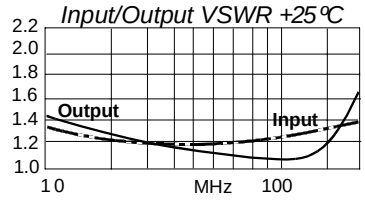
Typical Performance Data

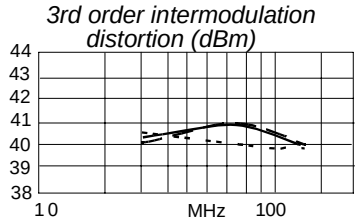












Legend ——— *+ 25 ºC* – – – *+ 70 ºC* - - - - - - *-40 ºC*

Linear S-Parameters Data

FREQ. MHz	S11 dB	S11 Ang	S21 dB	S21 Ang	S12 dB	S12 Ang	S22 dB	S22 Ang
30	-21.2	-37.6	21.5	170.8	-36.6	-31.9	-21.6	96.9
60	-22.2	-42.2	21.5	155.5	-34.6	33.1	-25.0	73.6
70	-22.1	-44.8	21.6	150.7	-33.9	35.0	-25.9	65.5
80	-22.0	-48.0	21.6	146.0	-33.4	34.6	-26.7	56.8
100	-21.5	-54.7	21.6	136.6	-32.1	34.6	-28.8	37.8
115	-21.0	-61.6	21.6	129.4	-31.3	34.0	-30.2	21.8
125	-20.5	-65.6	21.6	124.6	-30.8	32.9	-30.0	9.6
135	-20.2	-70.5	21.6	119.8	-30.3	32.6	-29.3	-4.6
145	-19.8	-76.0	21.6	114.9	-29.8	31.1	-28.7	-20.4

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