

# RF AMPLIFIER

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

## MODEL QBH-8719

### Features

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

### Specifications

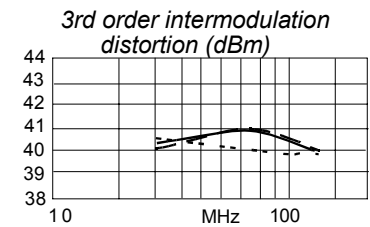
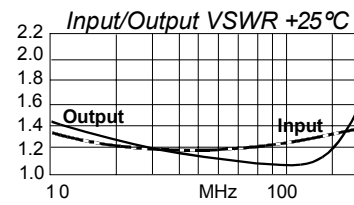
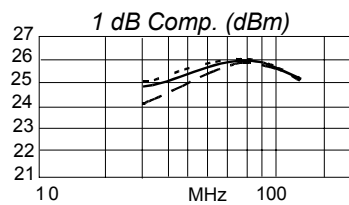
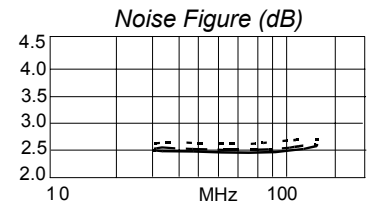
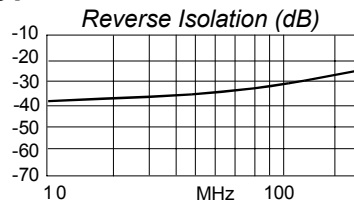
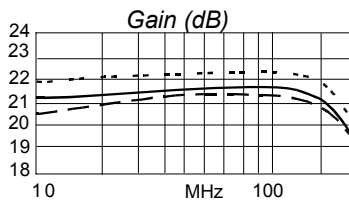
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	30 - 145 MHz	30 - 145 MHz
Gain (dB)	21.5 ±1.5	—
Gain vs. Temperature	—	—
Gain Flatness	0.2	1.0 Max.
Reverse Isolation (dB)	-32	-26 Min.
VSWR In	1.2:1	1.5:1 Max.
VSWR Out	1.2:1	1.7:1 Max.
1 dB Compression (dBm)	+25	+23 Min.
Output 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.

### Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature ..... -55 °C to +125 °C  
 Storage Temperature ..... -65 °C to +150 °C  
 Case Temperature ..... +125 °C  
 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:** Specifications are guaranteed when tested in a 50 Ohm system.  
 Specifications indicated as typical are not guaranteed.

### Typical Performance Data



Legend ——— +25 °C    - - - - +70 °C    ······ -40 °C

### 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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