**RF AMPLIFIER**

**MODEL**  
QBH-8701

**Features**
- High Gain: 28.0 dB Typical
- High Power: +25 dBm Typical
- Environmental Screening Available

**Specifications**

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>TYPICAL</th>
<th>MIN/MAX</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>1930 - 1990 MHz</td>
<td>—</td>
</tr>
<tr>
<td>Gain (dB)</td>
<td>28.0 ±1.0</td>
<td>—</td>
</tr>
<tr>
<td>Gain vs. Temperature</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Gain Flatness</td>
<td>0.9</td>
<td>—</td>
</tr>
<tr>
<td>Reverse Isolation (dB)</td>
<td>-40</td>
<td>—</td>
</tr>
<tr>
<td>VSWR In</td>
<td>1.5:1</td>
<td>—</td>
</tr>
<tr>
<td>VSWR Out</td>
<td>1.5:1</td>
<td>—</td>
</tr>
<tr>
<td>1 dB Compression (dBm)</td>
<td>+25</td>
<td>—</td>
</tr>
<tr>
<td>Output Intercept Point</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>3rd Order</td>
<td>+37</td>
<td>—</td>
</tr>
<tr>
<td>2nd Order</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>Noise Figure  (dB)</td>
<td>1.2</td>
<td>—</td>
</tr>
<tr>
<td>Power Vdc</td>
<td>+12</td>
<td>—</td>
</tr>
<tr>
<td>mA</td>
<td>190</td>
<td>—</td>
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</tbody>
</table>

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

**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: +15.5 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.)

**Typical Performance Data**

**Linear S-Parameters Data**

<table>
<thead>
<tr>
<th>FREQ. MHz</th>
<th>— S11—</th>
<th>— S21—</th>
<th>— S12—</th>
<th>— S22—</th>
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<tbody>
<tr>
<td>1930</td>
<td>-14.1</td>
<td>-17.8</td>
<td>-59.4</td>
<td>-15.4</td>
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<tr>
<td></td>
<td>28.1</td>
<td>-65.8</td>
<td>-84.0</td>
<td>111.5</td>
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<tr>
<td>1940</td>
<td>-14.2</td>
<td>-21.9</td>
<td>-58.7</td>
<td>-12.7</td>
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<tr>
<td></td>
<td>28.0</td>
<td>-88.5</td>
<td>-12.7</td>
<td>109.5</td>
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<tr>
<td>1950</td>
<td>-14.3</td>
<td>-27.5</td>
<td>-55.3</td>
<td>-116.1</td>
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<tr>
<td></td>
<td>27.9</td>
<td>-71.0</td>
<td>-116.1</td>
<td>107.4</td>
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<tr>
<td>1960</td>
<td>-14.5</td>
<td>-33.3</td>
<td>-52.1</td>
<td>-93.2</td>
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<td>27.9</td>
<td>-73.7</td>
<td>-93.2</td>
<td>105.0</td>
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<tr>
<td>1970</td>
<td>-14.2</td>
<td>-39.6</td>
<td>-51.6</td>
<td>-83.7</td>
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<tr>
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<td>27.8</td>
<td>-76.4</td>
<td>-83.7</td>
<td>104.7</td>
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<tr>
<td>1980</td>
<td>-13.9</td>
<td>-45.7</td>
<td>-52.0</td>
<td>-112.5</td>
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<tr>
<td></td>
<td>27.8</td>
<td>-79.0</td>
<td>-112.5</td>
<td>103.3</td>
</tr>
<tr>
<td>1990</td>
<td>-13.6</td>
<td>-53.7</td>
<td>-54.4</td>
<td>-107.8</td>
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<tr>
<td></td>
<td>27.7</td>
<td>-81.7</td>
<td>-107.8</td>
<td>103.2</td>
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</tbody>
</table>

**Legend**  
— +25 ºC