**RF AMPLIFIER**

**MODEL** QBH-8708

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### Features
- Balanced Configuration
- High Dynamic Range
- 3rd Order OIP: +38 dBm @ +25 ºC
- Low Noise Figure: 2.2 dB Typical

### Specifications

#### Absolute Maximum (No Damage) Ratings
- Ambient Operating Temperature: -40 ºC to +85 ºC
- Storage Temperature: -55 ºC to +125 ºC
- DC Voltage: +16 Volts
- Continuous RF Input Power: +17 dBm

#### Notes:
1. All specification ratings are based on measurements in a 50 Ohm system with a DC supply voltage tolerance of +1%.
2. RF output terminated into 50 ohms.

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### Typical Performance Data

**S-Parameters**

<table>
<thead>
<tr>
<th>FREQ (MHz)</th>
<th>$S_{11}$ (dB)</th>
<th>$S_{21}$ (dB)</th>
<th>$S_{12}$ (dB)</th>
<th>$S_{22}$ (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>800</td>
<td>21.0</td>
<td>-19.6</td>
<td>23.3</td>
<td>20.8</td>
</tr>
<tr>
<td>940</td>
<td>21.9</td>
<td>27.6</td>
<td>31.5</td>
<td>31.5</td>
</tr>
<tr>
<td>880</td>
<td>21.1</td>
<td>33.7</td>
<td>37.6</td>
<td>37.6</td>
</tr>
<tr>
<td>900</td>
<td>21.2</td>
<td>35.1</td>
<td>39.1</td>
<td>39.1</td>
</tr>
<tr>
<td>960</td>
<td>21.4</td>
<td>38.0</td>
<td>42.0</td>
<td>42.0</td>
</tr>
</tbody>
</table>

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**Legend**

- +25 ºC
- - - +70 ºC
- - - - - - - - - - - - - - +40 ºC
NOTES: UNLESS OTHERWISE SPECIFIED,
1. INTERPRET DWG PER ASME Y14.100.
2. INTERPRET THIRD ANGLE PROJECTION (ISO-A).
3. DIMENSIONS ARE IN INCHES [MM].
4. INTERPRET DIMENSIONING SYMBOLS PER ASME Y14.5M.
5. DO NOT SCALE THIS DRAWING.
6. ALL PRINTED PATTERN TOLERANCES: ±.001.
7. ALL DRILLED FEATURES: ±.002.

PIN DESIGNATIONS:
PIN 3 RF INPUT
PIN 8 RF OUTPUT
PIN 10 DC VOLTAGE
ALL OTHERS GROUND

TOP VIEW

FRONT VIEW