

## RF AMPLIFIER

# QBH-8920

## Features

- High Gain: 17.5 dB Typical
- High Power: +29 dBm Typical
- Operating Temp. - 40 °C to +70 °C
- Environmental Screening Available

## Specifications

| CHARACTERISTIC         | TYPICAL<br>Ta= 25 °C | MIN/MAX<br>Ta = -40 °C to +70 °C |
|------------------------|----------------------|----------------------------------|
| Frequency              | 800 - 960 MHz        | 800 - 960 MHz                    |
| Gain (dB)              | 17.5± 0.5            | —                                |
| Gain vs. Temperature   | —                    | —                                |
| Gain Flatness          | 0.5                  | 0.5 Max.                         |
| Reverse Isolation (dB) | 22                   | 22 Min.                          |
| VSWR In                | 1.3:1                | 1.5:1 Max.                       |
| Out                    | 1.3:1                | 1.5:1 Max.                       |
| 1 dB Compression (dBm) | +29                  | +28 Min.                         |
| Output Intercept point |                      |                                  |
| 3rd Order              | +45                  | +44 Min.                         |
| 2nd Order              | —                    | —                                |
| Noise Figure (dB)      | 2.5                  | 3.0 Max.                         |
| Power Vdc              | +9                   | +9                               |
| mA                     | 330                  | 350 Max.                         |

## Maximum Ratings

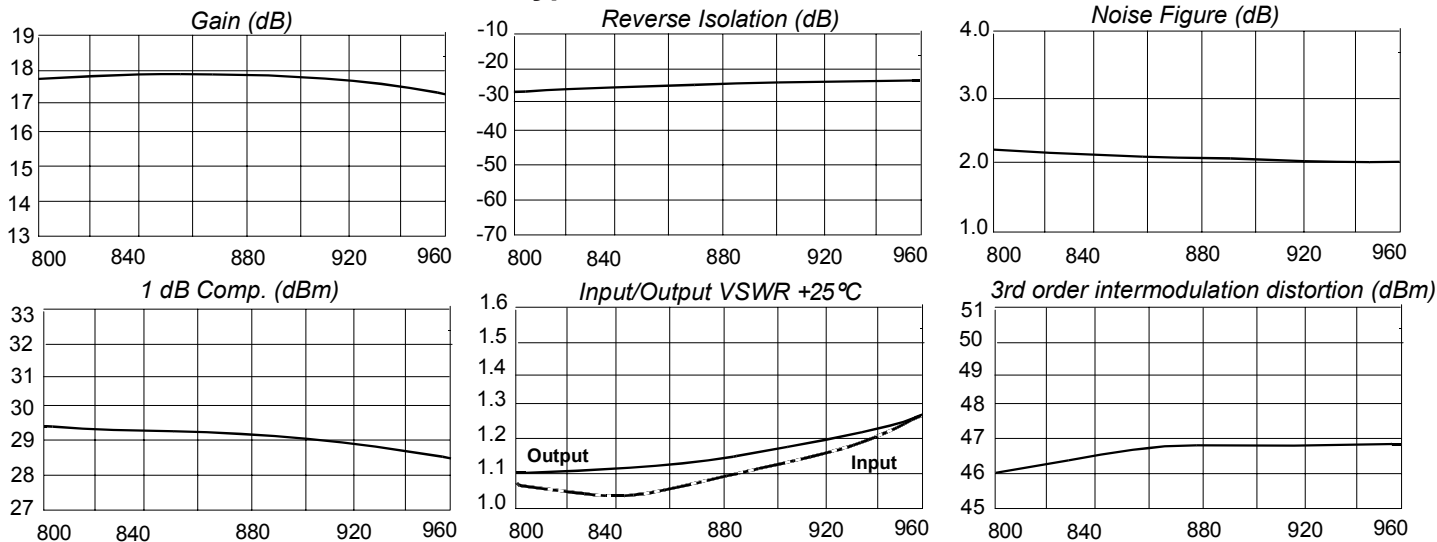
|                                     |                               |
|-------------------------------------|-------------------------------|
| Ambient Operating Temperature ..... | -55 °C to +100 °C             |
| Storage Temperature .....           | -65 °C to + 150 °C            |
| Case Temperature .....              | + 125 °C                      |
| DC Voltage .....                    | + 11 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.

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

## Typical Performance Data



### Linear S-Parameters Data

| FREQ.<br>MHz | --dB S11--<br>Ang | --dB S21--<br>Ang | --dB S12--<br>Ang | --dB S22--<br>Ang |
|--------------|-------------------|-------------------|-------------------|-------------------|
| 800          | -32.5             | 31.2              | 17.7              | 96.4              |
| 840          | -34.8             | 65.0              | 17.8              | 80.6              |
| 880          | -28.6             | 85.3              | 17.8              | 65.1              |
| 920          | -22.7             | 91.0              | 17.6              | 49.9              |
| 960          | -19.0             | 88.2              | 17.4              | 35.1              |

# Amplifonix

2707 Black Lake Place, Philadelphia, PA 19154

TEL 215-464-4000 . . . FAX 215-464-4001 03/11/05