

# RF AMPLIFIER

Available as: QBH-8709, Hybrid SM (E52-19422)

## MODEL QBH-8709

### Features

- High Gain: 16.0 dB Typical
- High Power: +18.5 dBm Typical
- Operating Temp. -40 °C to +70 °C
- Environmental Screening Available

### Specifications

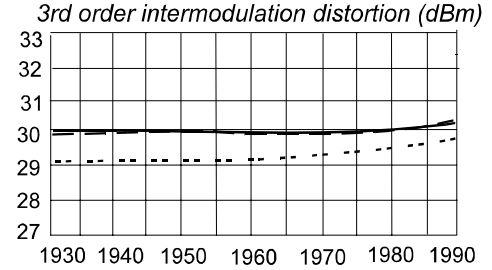
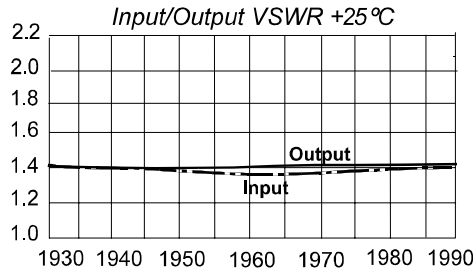
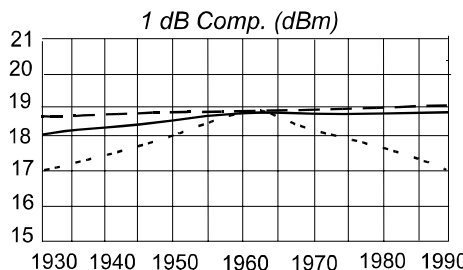
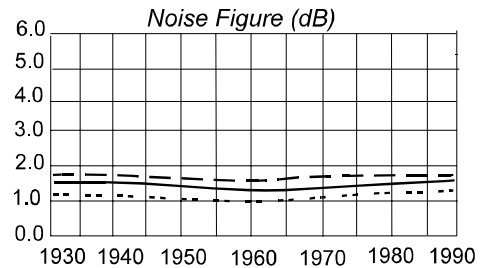
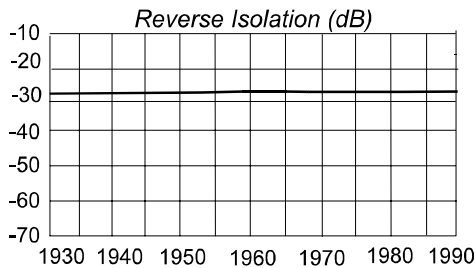
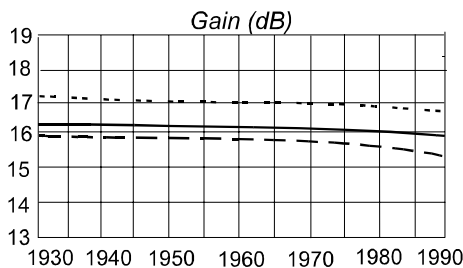
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	1930 - 1990 MHz	1930 - 1990 MHz
Gain (dB)	16.0 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.5	0.8 Max.
Reverse Isolation (dB)	-26	-25 Min.
VSWR In	1.4:1	2.0:1 Max.
Out	1.4:1	2.0:1 Max.
1 dB Compression (dBm)	+18.5	+16 Min.
Output Intercept Point 3rd Order	+30	+28 Min.
2nd Order	—	—
Noise Figure (dB)	1.5	2.0 Max.
Power Vdc	+12	+12
mA	85	100 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 .....	+18 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 Ang	-- S21-- dB Ang	-- S12-- dB Ang	-- S22-- dB Ang
1930	-15.1 -46.8	16.3 152.8	-26.3 77.7	-15.3 -39.7
1945	-15.9 -63.8	16.2 147.8	-26.4 73.1	-15.4 -49.9
1960	-16.3 -82.9	16.1 142.7	-26.4 69.7	-15.4 -61.2
1975	-16.0 -102.5	16.0 137.6	-26.5 64.1	-15.4 -73.7
1990	-15.4 -120.3	15.9 132.5	-26.5 60.5	-15.2 -86.6



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