

# RF AMPLIFIER

Available as: QBH-8713, Hybrid SM (E52-19422)

## MODEL QBH-8713

### Features

- High Gain: 15.8 dB Typical
- High Power: +27 dBm Typical
- Operating Temp. -40 °C to +70 °C
- Environmental Screening Available

### Specifications

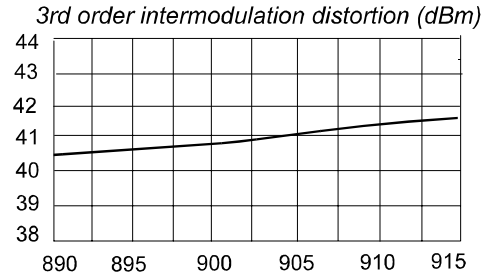
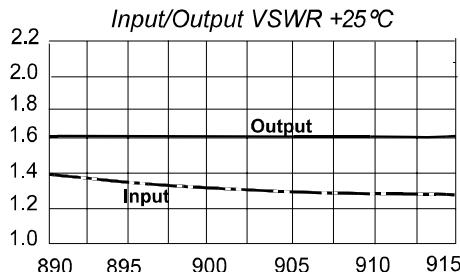
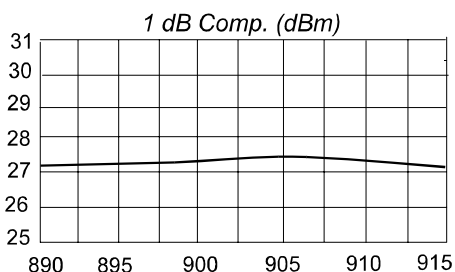
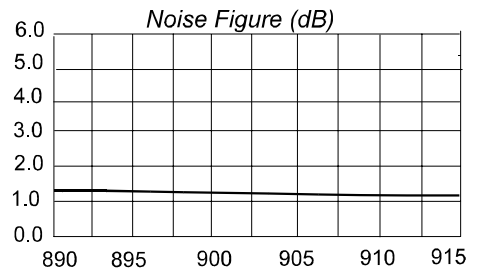
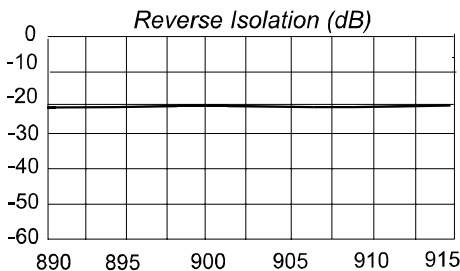
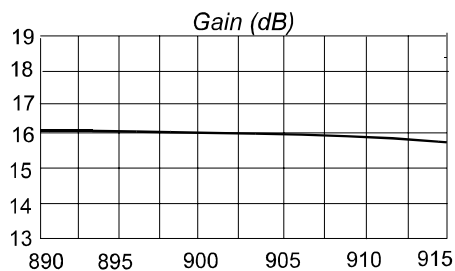
CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -40 °C to +70 °C
Frequency	890 - 915 MHz	890 - 915 MHz
Gain (dB)	15.8 Min.	—
Gain vs. Temperature	—	+1.5 Max.
Gain Flatness	0.3	0.6 Max.
Reverse Isolation (dB)	-21	-19 Min.
VSWR In	1.5:1	2.0:1 Max.
Out	1.6:1	2.0:1 Max.
1 dB Compression (dBm)	+27	+26 Min.
Output Intercept Point 3rd Order	+42	+39 Min.
2nd Order	—	—
Noise Figure (dB)	1.0	1.5 Max.
Power Vdc	+15	+15
mA	150	170 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 ..... +20 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

### Linear S-Parameters Data

FREQ. MHz	-- S11 -- dB Ang	-- S21 -- dB Ang	-- S12 -- dB Ang	-- S22 -- dB Ang
890	-15.8 54.6	15.9 -42.4	-20.7 -58.4	-12.8 -118.1
895	-16.4 41.7	15.9 -44.7	-20.6 -60.8	-12.8 -122.5
900	-17.0 26.9	15.9 -47.0	-20.6 -62.3	-12.8 -127.1
905	-17.5 10.1	15.8 -49.2	-20.5 -64.3	-12.8 -131.7
910	-17.8 -7.0	15.8 -51.5	-20.5 -66.5	-12.8 -136.1
915	-17.9 -21.7	15.7 -53.7	-20.4 -68.2	-12.8 -140.6



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