

# RF Amplifier

Model QBH-8719

## Available as

- QBH-8719
- Hybrid SM (E52-19422)

## Features

- **High Gain:** 21.5 dB Typical
- **High Power:** +25 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	30 - 145 MHz	30 - 145 MHz
Gain (dB)	21.5 ±1.5	--
Gain vs. Temperature	--	--
Gain Flatness	0.2	1.0 Max.
Reverse Isolation (dB)	-32	-26 Min.
VSWR	In 1.2:1 Out 1.2:1	1.5:1 Max. 1.7:1 Max.
1 dB Compression (dBm)	+25	+23 Max.
Output Intercept Point		
3rd Order	+40	+37 Min.
2nd Order	+51	+48 Min.
Noise Figure (dB)	2.5	3.0 Max.
Power	Vdc +15 mA 105	+15 115 Max.

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

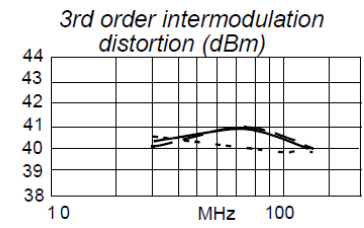
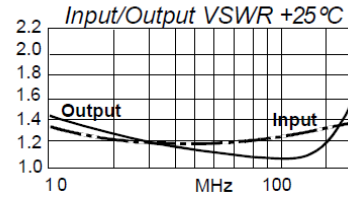
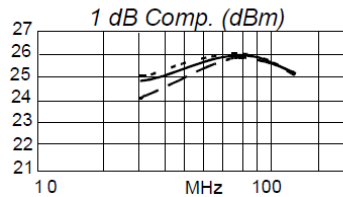
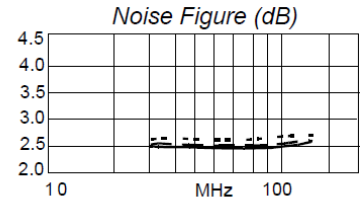
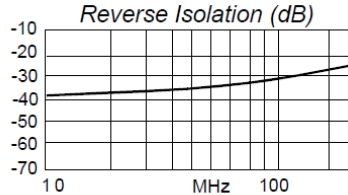
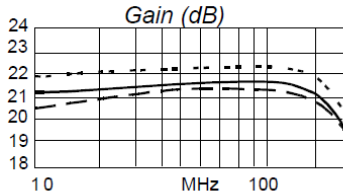
## Absolute Maximum (No Damage) Ratings

Ambient Operating Temperature	-55°C to +125°C
Storage Temperature	-65°C to +150°C
Case Temperature	+125°C
DC Voltage	+15 Volts
Continuous RF Input Power	+13 dBm
Short Term RF Input Power	50 mW (1 Minute Max.)
Maximum Peak Power	0.5 Watt (3 µsec Max.)

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## Typical Performance Data



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

## Linear S-Parameters Data

FREQ. MHz	S11		S21		S12		S22	
	dB	Ang	dB	Ang	dB	Ang	dB	Ang
30	-21.2	-37.6	21.5	170.8	-36.6	-31.9	-21.6	96.9
60	-22.2	-42.2	21.5	155.5	-34.6	33.1	-25.0	73.6
70	-22.1	-44.8	21.6	150.7	-33.9	35.0	-25.9	65.5
80	-22.0	-48.0	21.6	146.0	-33.4	34.6	-26.7	56.8
100	-21.5	-54.7	21.6	136.6	-32.1	34.6	-28.8	37.8
115	-21.0	-61.6	21.6	129.4	-31.3	34.0	-30.2	21.8
125	-20.5	-65.6	21.6	124.6	-30.8	32.9	-30.0	9.6
135	-20.2	-70.5	21.6	119.8	-30.3	32.6	-29.3	-4.6
145	-19.8	-76.0	21.6	114.9	-29.8	31.1	-28.7	-20.4

## Instructions

<b>Grounding Instructions</b>	Care should be taken to effectively ground each unit.
<b>Revisions</b>	API Tech reserves the right to make revisions to both product and/or the information contained within their data sheets without advanced notice.
<b>Min./Max. Values</b>	Specifications are guaranteed when tested in a 50 Ω (ohm) system.
Typical performance graphs and values are measured at 25°C, but not guaranteed.	

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**1) Outline drawing below is for reference only (QBH-3-8719) Connectorized Version.**

