

# RF AMPLIFIER

Available as: QBH-5403, Hybrid SM (E52-18563)

## MODEL QBH-5403

### Features

- High Gain: 15.0 dB Typical
- High Power: +20 dBm Typical
- Environmental Screening Available

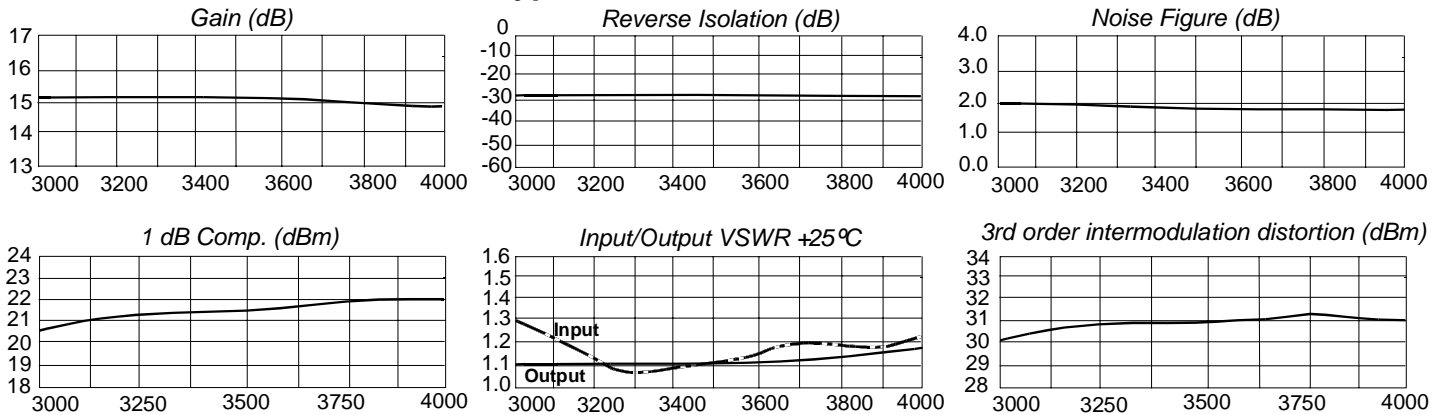
### Maximum Ratings

Ambient Operating Temperature ..... -40 °C to +85 °C  
 Storage Temperature ..... -65 °C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +10 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.)

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN	MAX
Frequency	—	3000 MHz	4000 MHz
Gain (dB)	15.0	14.0	16.0
Gain vs. Temperature	—	—	—
Gain Flatness	+/-0.25	—	+/- 0.5
Reverse Isolation (dB)	—	—	—
VSWR In	1.5:1	—	2.0:1
VSWR Out	1.2:1	—	1.5:1
1 dB Compression (dBm)	+20	+18	—
Output Intercept point 3rd Order	+31.0	+28.0	—
2nd Order	—	—	—
Noise Figure (dB)	1.7	—	2.5
Power Vdc	8.0	—	—
mA	85	—	100

### Typical Performance Data



Legend ——— + 25 °C

### Linear S-Parameters Data

FREQ. MHz	-- S11 -- dB Ang	-- S21 -- dB Ang	-- S12 -- dB Ang	-- S22 -- dB Ang
3000	-18.0 50.7	15.3 178.9	-26.9 61.8	-28.5 152.8
3200	-25.9 -12.5	15.3 142.7	-27.1 31.5	-30.2 107.4
3300	-34.0 -54.2	15.2 125.0	-27.3 16.9	-28.5 81.5
3450	-28.5 -102.5	15.2 98.8	-27.5 -4.6	-26.9 39.3
3550	-25.7 -140.9	15.2 81.6	-27.6 -18.5	-26.0 16.2
3650	-22.3 -176.5	15.1 64.3	-27.7 -32.7	-25.1 -10.2
3800	-21.3 152.1	15.0 38.4	-28.0 -53.3	-23.9 -41.8
3900	-21.6 118.8	14.9 21.4	-28.1 -67.1	-22.9 -61.3
4000	-20.0 79.3	14.8 4.4	-28.3 -81.1	-22.3 -77.0



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