



# QB-445

## Compliance Matrix

### 2.5 – 3.5 GHz, 1 Watt Amplifier

(Replaces QB-963)

#### A. Electrical Ratings

Item #	Parameter	Unit	Specifications <sup>(1)</sup>		Comments
			Typical 25°C	Guaranteed 0°C to +50°C	
A.1	Frequency Range	GHz	2.5 – 3.5		Comply
A.2	Small Signal Gain	dB	32	32.0 ± 1.5	Comply
A.3	Gain Flatness	dB	± 0.25	± 0.50 max.	Comply
A.4	Input VSWR		1.5 :1	2.0 :1 max.	Comply
A.5	Output VSWR		1.5 :1	2.0 :1 max.	Comply
A.6	Reverse Isolation	dB	53	42 min.	Comply
A.7	Noise Figure	dB	3.5	5.0 max.	Comply
A.8	Pout @ 1dB Compression	dBm	+33.5	+33	Comply
A.9	3 <sup>rd</sup> Order Output Intercept Point	dBm	+45	+45	Comply
A.10	DC Voltage	Vdc	+15.0		Comply
A.11	Operating DC Current	mA	1000	1500 max.	Comply

**Notes:**

- 1) Specification ratings are based on measurements in a 50 ohm system with a DC supply voltage tolerance of ± 1%.
- 2) RF output terminated into 50 ohms (Load VSWR ≤ 2.0 : 1).

#### B. Absolute Maximum Ratings

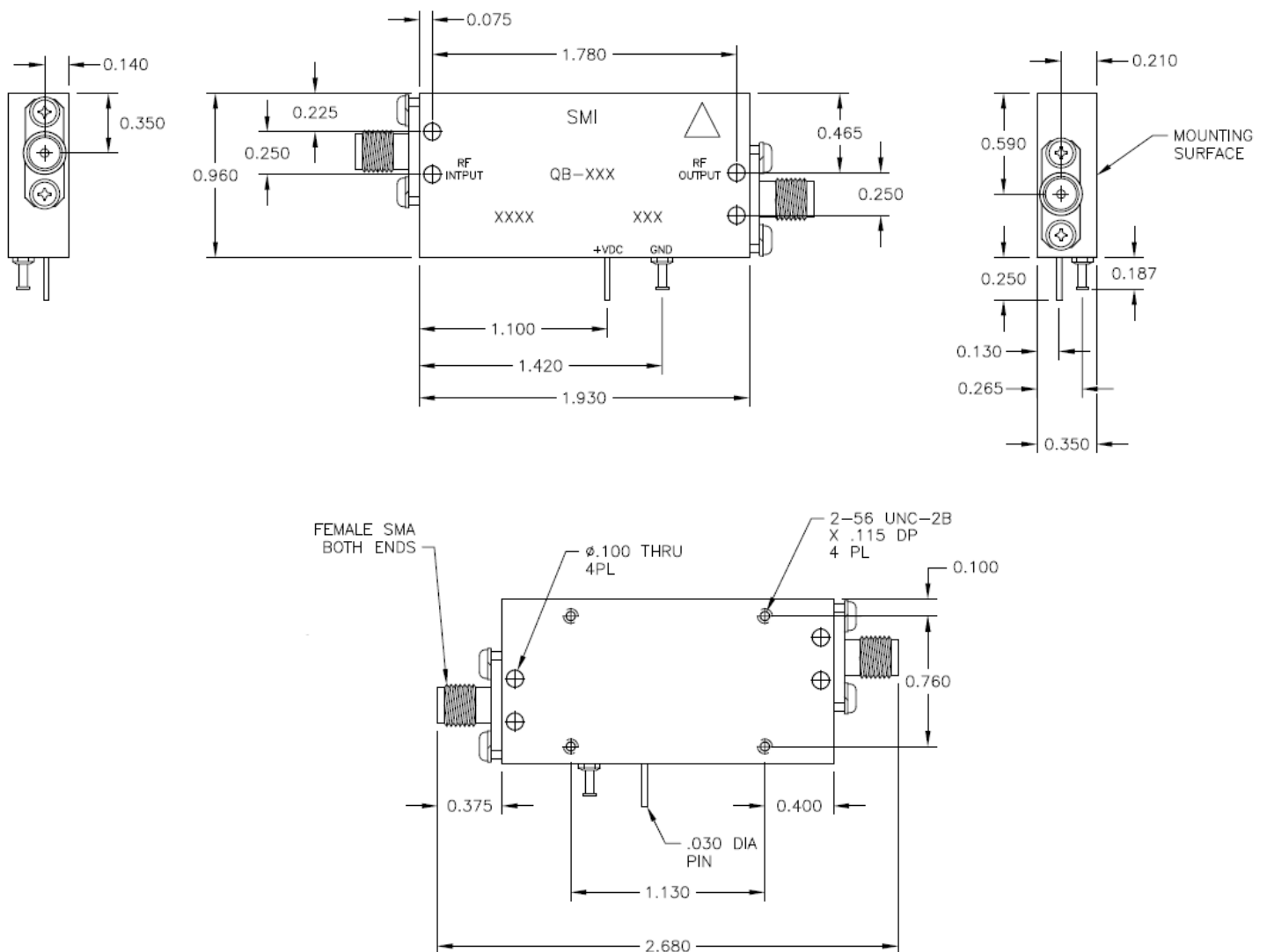
Item #	Parameter	Limit	Unit	Specification	Comments
B.1	DC Voltage @ 25°C	Max.	Vdc	+16.0	Comply
B.2	Input Drive @ 25°C	Max.	dBm	+10	Note 2
B.3	Operating Temperature*	Min.	°C	- 20	Comply
		Max.	°C	+85	
B.4	Storage Temperature	Min.	°C	- 55	Comply
		Max.	°C	+125	

\* Maximum Operating Temperature is defined as that temperature which, if exceeded for extended periods, could result in premature unit failure. This data is provided for user reliability information. This may or may not represent the maximum temperature for electrical parameter specifications.

#### C. General

Item #	Parameter	Specification	Comments
C.1	Package (Hermetic)	SMI Drawing 080-22859 (Figure 1)	70/30 CuNi
C.2	Finish	CuNi (Copper Nickel Alloy)	Comply
C.3	RF Input / Output Connectors	SMA Female (2 Hole Flange)	Field Replaceable
C.4	+VDC Connector	Gold Plated Pin	Solderable
C.5	Ground Terminal	Threaded Turret	Solderable

## D. Package Outline



### NOTES:

- INTERPRET DRAWING IAW ASME Y14.100-2004
- DIMENSIONING AND TOLERANCING IAW ASME Y14.5-1994
- DIMENSIONS ARE IN INCHES
- MATERIAL: 70/30 COPPER NICKEL

### TOLERANCES

- ANGLES:  $\pm 1.0^\circ$
- 2 PLACE DECIMAL:  $\pm .03$  inches
- 3 PLACE DECIMAL:  $\pm .010$  inches

Figure 1