


**Description**

- Standard 1.6 x 1.2mm crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid.
- Model IQXO-642
- Model Issue number 4

**Frequency Parameters**

- Frequency 40.0MHz
- Frequency Stability  $\pm 50.00$ ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing  $\pm 5$ ppm max/yr @ 25°C

**Electrical Parameters**

- Supply Voltage 1.8V  $\pm 10\%$
- Current Draw 4.000mA

**Output Details**

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 4.5ns max
- Duty Cycle 45/55%
- Output Voltage Low (Vol): 10%Vs max  
Output Voltage High (Voh): 90%Vs min

**Output Control**

- Standby Operation:  
Logic '1' ( $\geq 70\%$ Vs) to pad 1 enables oscillator output.  
Logic '0' ( $\leq 30\%$ Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state.  
No connection to pad 1 enables oscillator output.
- Standby Current: 10µA max

**Environmental Parameters**

- Storage Temperature Range: -55 to 125°C
- Shock: IEC 60068-2-27: 1000g, 1ms, 3 times in each of 3 mutually perpendicular planes.
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs).

**Manufacturing Details**

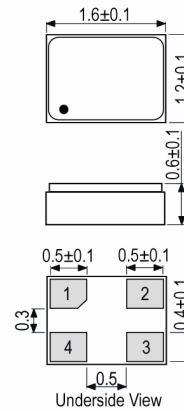
- RoHS Terminations W(15 $\pm$ 4µm), Ni(8~20µm), Au(0.2-260 $\pm$ 5°C for 5s max)

**Compliance**

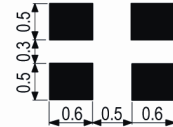
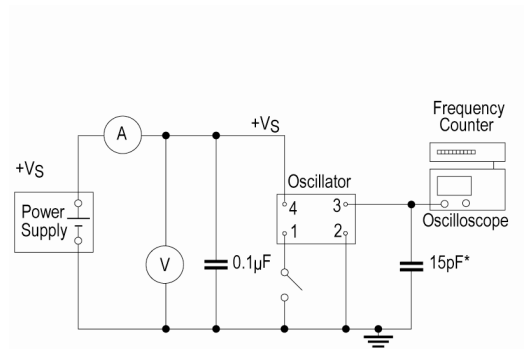
- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

- Pack Style: *Cutt* Cut tape  
Pack Size: 100
- *Alternative packing option available*

**Outline (mm)**


- Pad Connections
1. Standby Operation
  2. GND
  3. Output
  4. +Vs

**Solder Pad Layout**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

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