

**Customer Part:**

**Description**

- Standard 2 x 1.6mm crystal oscillator in a hermetically sealed ceramic package with a seam sealed metal lid
- Model IQXO-542
- Model Issue number 4

**Frequency Parameters**

- Frequency 24.5760MHz
- Frequency Stability  $\pm 50.00$ ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing  $\pm 5$ ppm max per year @ 25°C

**Electrical Parameters**

- Supply Voltage 1.8V  $\pm 10\%$
- Current Draw 5.000mA

**Output Details**

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 5.0ns max
- Duty Cycle 45/55%
- Start up Time: 10ms max.  
1.1ms typ to 90% of final amplitude (Under ideal conditions @ 25°C)

**Output Control**

- Standby Operation: Logic '1' ( $\geq 70\%V_s$ ) to pad 1 enables oscillator output  
Logic '0' ( $\leq 30\%V_s$ ) 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: 10 $\mu$ A max, 0.6 $\mu$ A typ @ 25°C

**Output Levels**

- Output High (VoH): 90% of  $V_s$  min  
Output Low (VoL): 10% of  $V_s$  max

**Environmental Parameters**

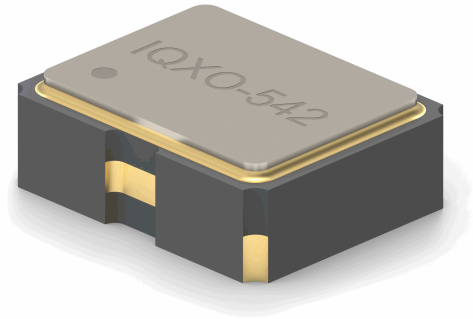
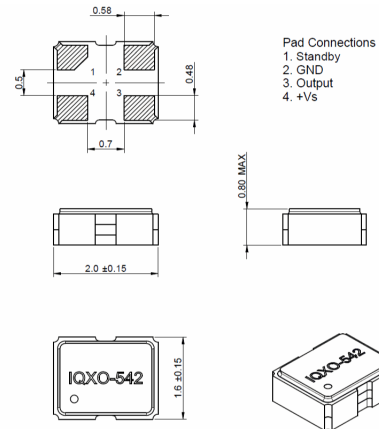
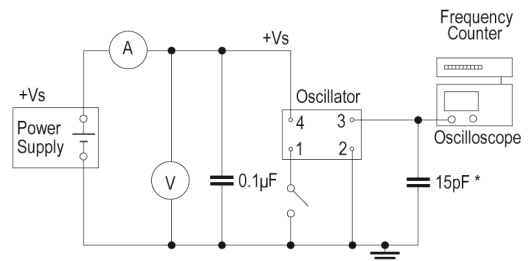
- Impact: Weight of 10g dropped to centre of part from a height of 6mm
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)
- Storage Temperature Range: -40 to 85°C
- RoHS Terminations
- RoHS Reflow Temp 250°C max for 10s max

**Compliance**

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

**Packaging Details**

- Pack Style: Cutt In tape, cut from a reel
- Pack Size: 100


**Outline (mm)**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

USA: +1.760 668 8935

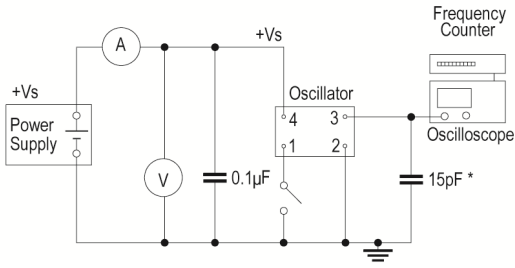
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Customer Part:**

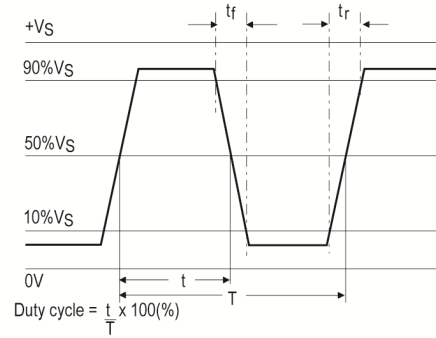
- Alternative packing option available

**Test Circuit**



\* Inclusive of jigging and equipment capacitance

**Wave Form**



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