

**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 24.0MHz
- Frequency Stability  $\pm 25.00\text{ppm}$
- Operating Temperature Range  $-20.00$  to  $70.00^\circ\text{C}$
- Ageing  $\pm 5\text{ppm}$  max per year @  $25^\circ\text{C}$

**Electrical Parameters**

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

**Output Details**

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

**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:  $10\mu\text{A}$  max,  $0.6\mu\text{A}$  typ @  $25^\circ\text{C}$

**Output Levels**

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

**Environmental Parameters**

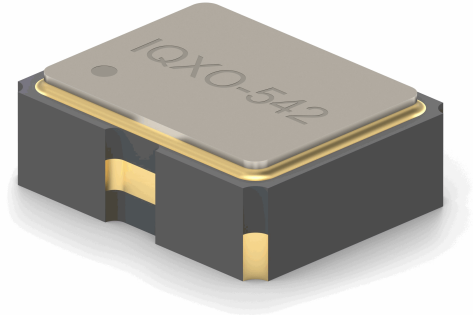
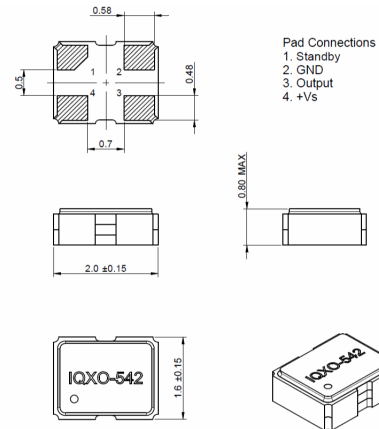
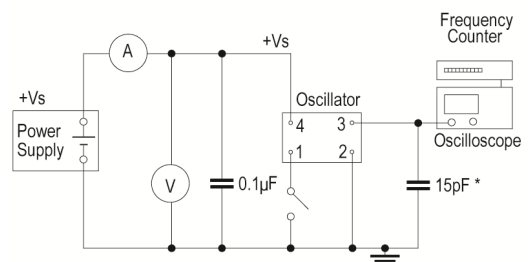
- Impact: Weight of 10g dropped to centre of part from a height of 6mm
- Vibration: IEC 60068-2-6: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane (total 6hrs)
- Storage Temperature Range:  $-40$  to  $85^\circ\text{C}$
- RoHS Terminations
- RoHS Reflow Temp  $250^\circ\text{C}$  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: RL3K Tape & reel in accordance with EIA-481-D  
 Pack Size: 3,000


**Outline (mm)**

**Test Circuit**


\* Inclusive of jigging and equipment capacitance

**Sales Office Contact Details:**

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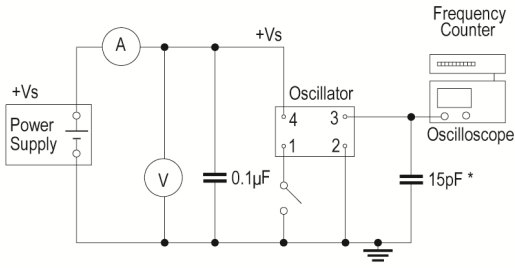
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**Customer Part:**

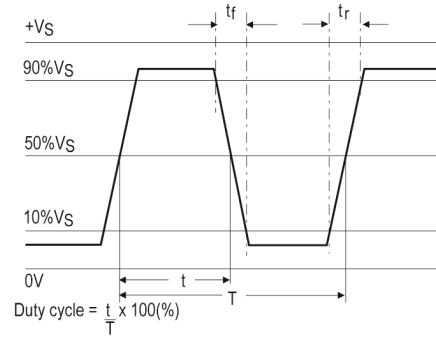
- *Alternative packing option available*

**Test Circuit**



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**Wave Form**



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