



Description

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

Frequency Parameters

- Frequency 12.0MHz
- Frequency Tolerance @ 25°C INCLUSIVE
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 85.00°C
- Ageing $\pm 5\text{ppm}$

Frequency Stability

- Inclusive of tolerance, supply voltage and load variations over the operating temperature range

Electrical Parameters

- Supply Voltage 1.8V
- Supply Voltage Tolerance $\pm 10\%$
- Current Draw 3mA max
- Standby Current: 10 μA max (pad 1 at logic '0')

Output Details

- Output Compatibility CMOS
- Output Load 15pF max
- Rise and Fall time (10% - 90%) 5.0ns max
- Duty Cycle 45/55%

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

Environmental Parameters

- 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
- Impact: Weight of 10g dropped to centre of part from a height of 6mm

Compliance

- RoHS Status Compliant
- REACH Status Compliant

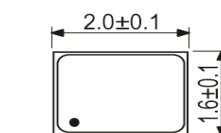
Packaging

- Pack Type: Reel Tape and reel in accordance with EIA-481-D
- Pack Size 3,000
- Alternative packing option available

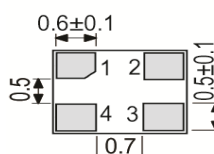
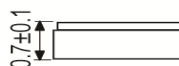
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Outline (mm)

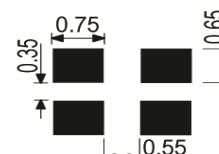


- Pad Connections
- Standby Operation
 - GND
 - Output
 - +Vs

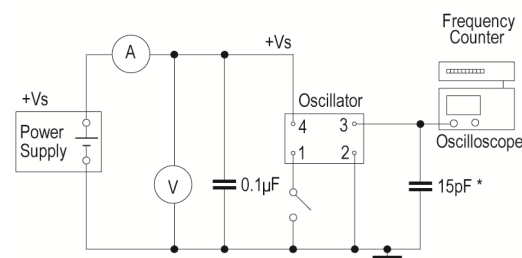


Underside View

Solder Pad Layout

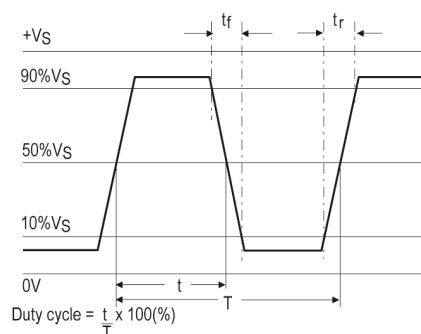


Test Circuit



* Inclusive of jigging and equipment capacitance

Wave Form



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