

Customer Part:



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 16.0MHz
- Frequency Stability ± 50.00 ppm
- Operating Temperature Range -40.00 to 85.00°C
- Ageing ± 5 ppm max/yr @ 25°C

Electrical Parameters

- Supply Voltage 1.8V $\pm 10\%$
- Current Draw 3.000mA

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF max
- Rise and Fall Time 4.5ns max
- Duty Cycle 45/55%
- Output Voltage Low (V_{ol}): 10%V_s max
- Output Voltage High (V_{oh}): 90%V_s min

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: 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±4µm), Ni(8~20µm), Au(0.2~260±5°C for 5s max)
- RoHS Reflow Temp 260±5°C for 5s max

Compliance

- RoHS Status (2015/863/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)

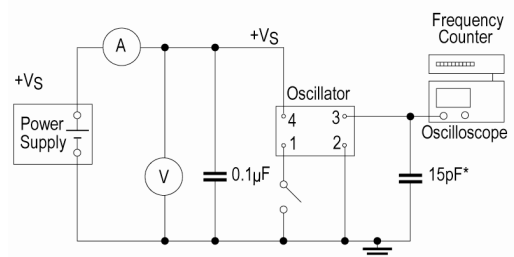


- Pad Connections
- Standby Operation
 - GND
 - Output
 - +V_s

Solder Pad Layout



Test Circuit



* Inclusive of jigging and equipment capacitance

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