

Description

- The IQXO-942 crystal oscillator (SPXO) combines very low RMS phase jitter and tight frequency stability in an industry standard 7.0 x 5.0mm SMD package.
- Model IQXO-942-9
- Model Issue number 1

Frequency Parameters

- Frequency 637.0MHz
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -20.00 to 70.00°C
- Frequency Stability: Including frequency tolerance, operating temperature range, supply voltage variation, load variation and 1yr ageing @ 25°C .

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 10\%$
- Current Draw 40.000mA
- Absolute Maximum Rating: Power supply: -0.5V to $+4.2\text{V}$
Operating beyond this limit may result in change or permanent damage to the device.

Output Details

- Output Compatibility LVDS
- Drive Capability 100Ω
- Rise and Fall Time 0.6ns max
- Duty Cycle $45/55\%$
- Differential Output: Voltage Swing (Vod): 350mV typ
- Note: Rise/Fall Times measured @ load= 100Ω .

Output Control

- Enable/Disable:
Logic '0' ($30\%V_s$ max) or GND to pad 2 disables oscillator output.
Logic '1' ($70\%V_s$ min) or no connection (internal pull-up resistor) to pad 2 enables oscillator output.

Noise Parameters

- Phase Jitter (12kHz to 20MHz): 1ps RMS max

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Mechanical Shock: MIL-STD-883, Method 2002.
- Vibration: MIL-STD-883, Method 2007.
- Thermal Shock: MIL-STD-883, Method 1011.
- Gross and Fine Leak Test: MIL-STD-883, Method 1014.
- Humidity: After 48hrs @ $85^\circ\text{C} \pm 2^\circ\text{C}$, $85\% \text{ RH non-condensing}$.

Manufacturing Details

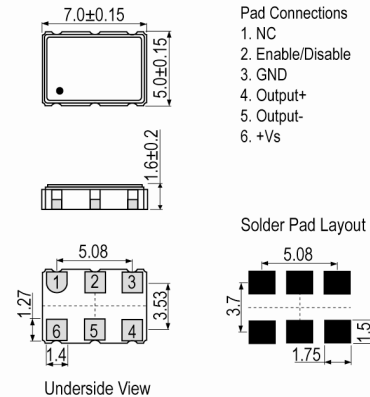
- Maximum Process Temperature: 260°C (40secs max)
- RoHS Terminations
- RoHS Reflow Temp $260^\circ\text{C max for 40secs max}$

Compliance

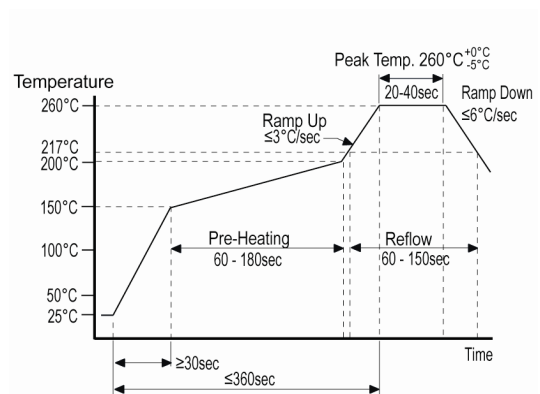
- RoHS Status (2011/65/EU) Compliant
- REACh Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm)



Reflow Solder Profile



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Packaging Details

- Pack Style: Bulk Bulk pack
Pack Size: 1
- *Alternative packing option available*

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