

Customer Part:

Description

- LVPECL output crystal oscillator using a high frequency fundamental crystal to give very low jitter. Hermetically sealed ceramic package with a seam sealed metal lid.
- Model IQXO-623
- Model Issue number 2

Frequency Parameters

- Frequency 156.250MHz
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 105.00°C
- Ageing $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Supply Voltage $2.5\text{V} \pm 5\%$
- Current Draw 50.000mA

Output Details

- Output Compatibility LVPECL
- Drive Capability 50Ω terminated to $V_s - 2.0\text{V}$
- Rise and Fall Time 0.5ns max
- Duty Cycle 45/55%
- Output Voltage Levels:
Output Low (VOL): 1.095V max
Output High (VOH): 1.475V min

Output Control

- Standby Operation:
Logic '1' ($70\% V_s$ min) to pad 1 enables oscillator output.
Logic '0' ($30\% V_s$ max) to pad 1 disables oscillator output.
No connection to pad 1 enables oscillator output due to internal pull-up resistor.
- Standby Current: $10\mu\text{A}$ max
- Start-up Time: 10ms max

Noise Parameters

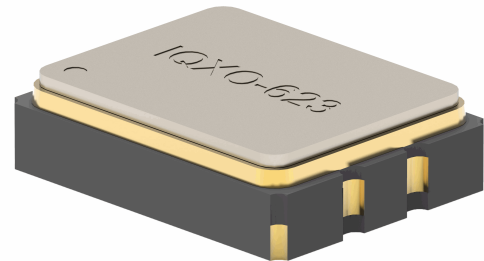
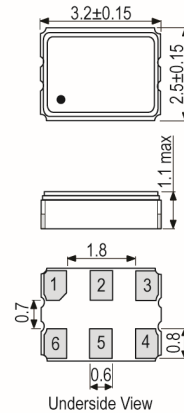
- Phase Jitter (12kHz to 20MHz): 300fs rms max
- Phase Jitter (12kHz to 20MHz):
@100MHz: 129fs rms typ
@125MHz: 101fs rms typ
@156.25MHz: 79fs rms typ

Environmental Parameters

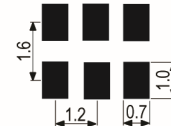
- Storage Temperature Range: -55 to 125°C
- Shock: 1500G , 0.5ms , 3 times for each surface, total 18 times.
- Vibration: Freq. range: $20\sim 2000\text{Hz}$, peak to peak amplitude: 1.52mm , peak acceleration: 20G (196m/s^2), 3 direction (X, Y, Z), each cycle: 20min , 4 cycles for each direction.

Manufacturing Details

- RoHS Terminations Au over Ni
- RoHS Reflow Temp 260°C max for 10sec max


Outline (mm)

Pad Connections

1. Standby Operation
2. N/C
3. GND
4. Output +
5. Output -
6. +Vs

Solder Pad Layout

Sales Office Contact Details:

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Customer Part:**Compliance**

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

Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to
be supplied on cut ta
Standard Quantity: 3,000 Pieces

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