

### Customer Part:



#### Description

- LVDS 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-661
- Model Issue number 3

#### Frequency Parameters

- Frequency 125.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 3\text{ppm}$  max per year at  $25^\circ\text{C}$

#### Electrical Parameters

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

#### Output Details

- Output Compatibility LVDS
- Drive Capability  $100\Omega$
- Rise & Fall Time (20 - 80%)  $0.5\text{ns}$  max
- Duty Cycle 45/55%
- Differential Output Voltage (VoD):  $0.247\text{V}$  min,  $0.330\text{V}$  typ,  $0.454\text{V}$  max.
- Offset Voltage (VOS):  $1.125\text{V}$  min,  $1.250\text{V}$  typ,  $1.375\text{V}$  max.
- Output Voltage Levels:  
Output Low (VoL):  $0.9\text{V}$  min  
Output High (VoH):  $1.6\text{V}$  max

#### Output Control

- Enable/Disable:  
Logic '1' ( $\geq 70\%$  Vs) to pad 1 enables oscillator output.  
Logic '0' ( $\leq 30\%$  Vs) 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

#### Noise Parameters

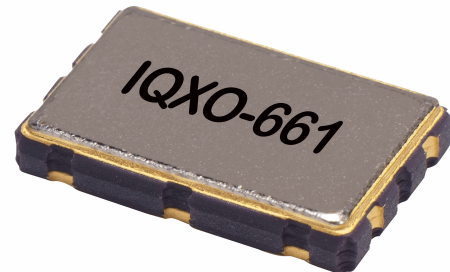
- Phase Jitter (12kHz to 20MHz):  $1\text{ps}$  rms max

#### Environmental Parameters

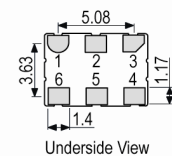
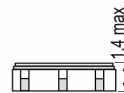
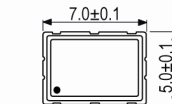
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock: MIL-STD-202, Method 213, Condition E: 1000G,  $0.5\text{ms}$ , half sine wave.
- Vibration: MIL-STD-883, Method 2007, Condition A: 20G

#### Compliance

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



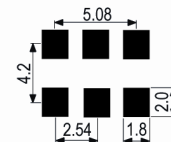
#### Outline (mm)



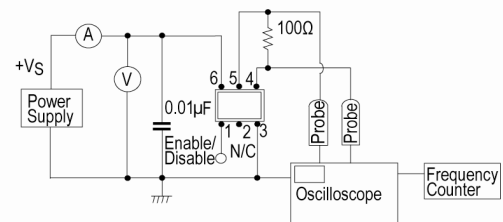
#### Pad Connections

1. Enable/Disable
2. N/C
3. GND
4. Output +
5. Output -
6. +Vs

#### Solder Pad Layout



#### Test Circuit



#### Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

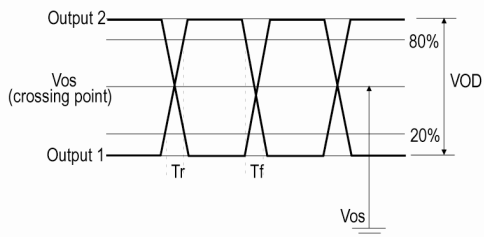
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

### Customer Part:

#### Packaging Details

- Tape & reel in accordance with EIA-481  
Quantities below the standard reel size to be supplied on cut tape  
Standard Pack Quantity: 1,000

### Wave Form



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UK: +44 (0)1460 270200

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)