

ISSUE 1; October 2015

### Description

- PLL based, one time only factory programmable for a fast lead time
- A SMD crystal oscillator in a hermetically sealed ceramic package with a metal lid
- See IQXO-690 for our standard crystal oscillator alternative

### Frequency Parameters

- Frequency: 1.0MHz to 200.0MHz
- Frequency Stability:  $\pm 25.00$ ppm
- Ageing:  $\pm 5$ ppm max in 1st year @ 25°C

### Electrical Parameters

- Supply Voltage: 3.3V  $\pm 0.3$ V

### Operating Temperature Ranges

- 40 to 85°C

### Output Details

- Output Compatibility: LVPECL
- Drive Capability: 50Ω terminated to  $V_s - 2.0$ V
- Output Voltage  $V_{oH}$ :  $V_s - 1.025$ V
- Output Voltage  $V_{oL}$ :  $V_s - 1.620$ V

### Output Control

- Tri-state Operation (CMOS):
  - Logic '1' to pin 1 enables oscillator output
  - Logic '0' to pin 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
  - No connection to pin 1 enables oscillator output

### Noise Parameters

- Period Jitter: 10ps rms max

### Environmental Parameters

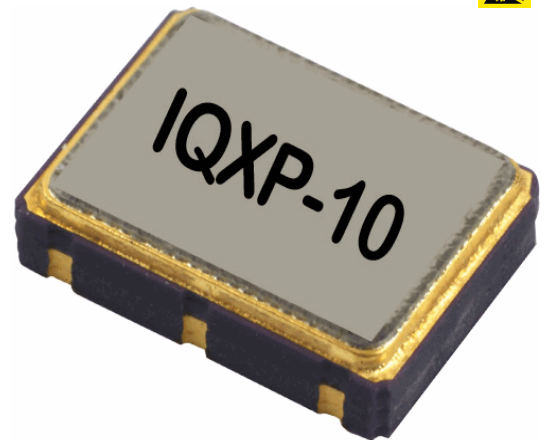
- Storage Temperature Range: -55 to 125°C

### Ordering Information

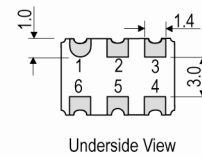
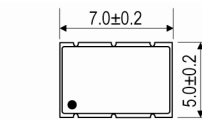
- Frequency\*
- Model\*
- Output Compatibility
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- (\*minimum required)
- Example
  - 100.0MHz IQXP-10
  - LVPECL  $\pm 25$ ppm -40 to 85C 3.3V

### Compliance

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

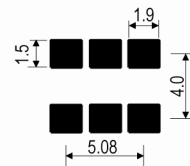


### Outline (mm)



- Pad Connections
1. Tri-State (CMOS)
  2. Do Not Connect
  3. GND
  4. LVPECL +
  5. LVPECL -
  6. +Vs

### Solder Pad Layout



### Sales Office Contact Details:

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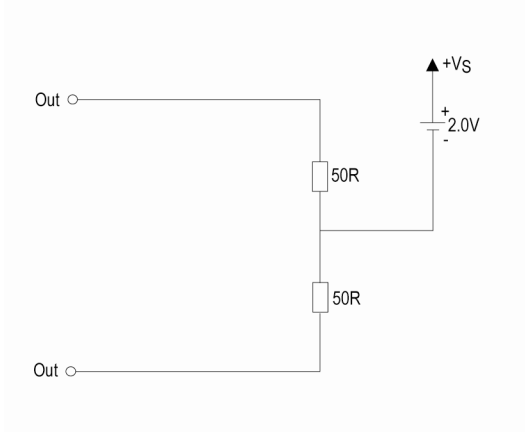
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

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

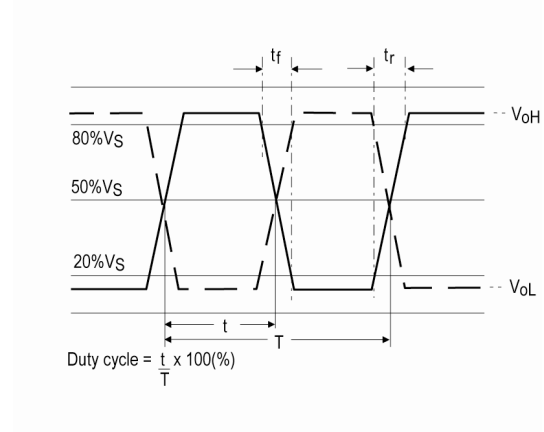
### Packaging Details

- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: Cutt      In tape, cut from a reel  
Pack Size: 1
- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 1

### Test Circuit



### Wave Form



### Electrical Specification - maximum limiting values 3.3V ±0.3V

| Frequency Min | Frequency Max | Temperature Range | Stability (Min) | Current Draw | Rise and Fall Time | Duty Cycle |
|---------------|---------------|-------------------|-----------------|--------------|--------------------|------------|
|               |               | °C                | ppm             | mA           | ns                 | %          |
| 1.0MHz        | 200.0MHz      | -40 to 85         | ±25.0           | 100          | 1.5                | 45/55%     |

*This document was correct at the time of printing; please contact your local sales office for the latest version.*

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