

### Description

- Standard 2.5 x 2.0 oscillator in a ceramic package with a hermetically sealed metal lid.
- Model IQXO-794
- Model Issue number 4

### Frequency Parameters

- Frequency 24.0MHz
- Frequency Stability  $\pm 50.00\text{ppm}$
- Operating Temperature Range  $-40.00$  to  $85.00^\circ\text{C}$
- Ageing  $\pm 5\text{ppm}$  per year

### Electrical Parameters

- Supply Voltage  $1.8\text{V} \pm 10\%$
- Current Draw  $12.000\text{mA}$  max

### Output Details

- Output Compatibility CMOS
- Drive Capability  $15\text{pF}$  max
- Rise and Fall Time  $7.0\text{ns}$  max
- Duty Cycle  $40/60$  max
- Start Up Time:  
 $0.9\text{ms}$  typ to 90% of final amplitude (under ideal conditions @ $25^\circ\text{C}$ )  
 $10\text{ms}$  max
- Output Voltage Levels:  
Output Low (VoL):  $10\%$  Vs max  
Output High (VoH):  $90\%$  Vs min

### Output Control

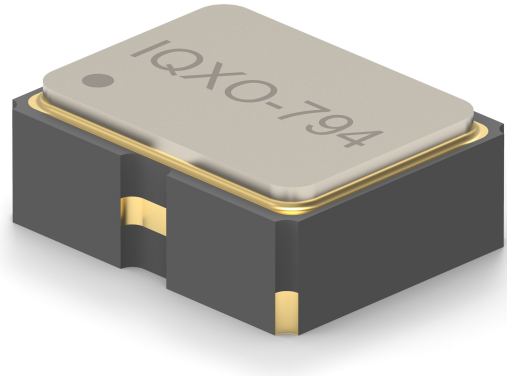
- Enable/Disable:  
Logic '1' ( $\geq 70\%$  Vs) to pad 1 enables oscillator output.  
Logic '0' ( $\leq 30\%$  Vs) to pad 1 disables oscillator output. When disabled the oscillator output goes to the high impedance state.  
No connection to pad 1 enables oscillator output.
- Standby Current:  
 $0.5\mu\text{A}$  typ @ $25^\circ\text{C}$   
 $10\mu\text{A}$  max

### Noise Parameters

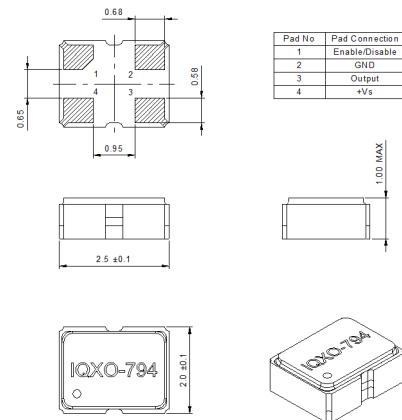
- Period Jitter (pk-pk):  $\pm 80\text{ps}$  typ
- Period Jitter ( $1\sigma$ ):  $\pm 10\text{ps}$  typ
- RMS Phase Jitter (12kHz to 20MHz):  $1\text{ps}$  max

### Environmental Parameters

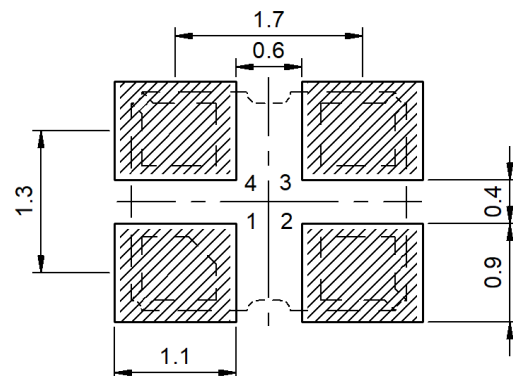
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$
- Shock: Half Sine shock pulse with peak acceleration  $500\text{g}$ ; Pulse duration:  $0.3\text{ms}$
- Vibration: MIL-STD-202 Method 204.  $5\text{g}$  for 20 minutes, 12 cycles in each of the 3 orientations,  $10 \sim 2000$  Hz. As per Table 11 of AEC-Q200.



### Outline (mm)



### Recommended Solder Pad Layout



### CONTACT INFORMATION:

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### Manufacturing Details

- RoHS Terminations NiAu
- RoHS Reflow Temp 260°C max for 10 seconds max

### 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 tape.  
Standard Quantity: 3,000 Pieces
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## USEFUL LINKS

### Toolbox:

[www.we-online.com/toolbox](http://www.we-online.com/toolbox)

### Product Catalog:

[www.we-online.com/products](http://www.we-online.com/products)

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