



Description

- Voltage controlled crystal oscillator in a ceramic package with a hermetically sealed metal lid
- Model IQXV-56
- Model Issue number 1

Frequency Parameters

- Frequency 31.1040MHz
- Frequency Stability $\pm 50.00\text{ppm}$
- Operating Temperature Range -40.00 to 85.00°C
- Ageing (@ 25°C): $\pm 3\text{ppm max}$

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 5\%$
- Current Draw 15.00mA

Frequency Adjustment

- Pulling $\pm 150\text{ppm min}$
- Control Voltage $1.65\text{V} \pm 1.65\text{V}$
- Input Impedance $100\text{k}\Omega \text{ min}$
- Linearity: $\pm 10\% \text{ max}$

Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF max
- Rise and Fall Time 8.0ns max
- Duty Cycle $45/55\%$
- Start Up Time: 10ms max

Output Control

- Standby Operation:
Logic '1' ($>70\% V_s$) to pad 2 enables oscillator output
Logic '0' ($<30\% V_s$) to pad 2 disables oscillator output: when disabled the oscillator output goes to the high impedance state
No connection pad 2 enables oscillator output

Output Levels

- VoH: $>90\% \text{ of } V_s$
- VoL: $<10\% \text{ of } V_s$

Noise Parameters

- Period Jitter (pk-pk): 100ps max
- Period Jitter (one sigma): 25ps max

Environmental Parameters

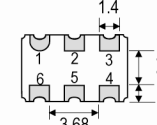
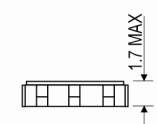
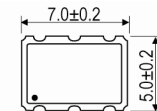
- Storage Temperature Range: -55 to 125°C
- Drop: $1.2\text{m drop (3 times)}$ onto a hard surface
- Vibration: $1.5\text{mm amplitude, } 10\text{-}55\text{-}10\text{Hz, full sine wave, } 2\text{mins}$ in 3 mutually perpendicular planes, duration 2hrs in each plane

Compliance

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



Outline (mm)



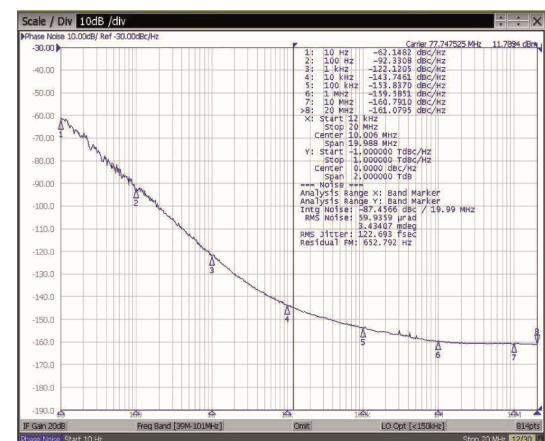
Underside View

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

Solder Pad Layout



Typical Phase Noise Plot @ 77.76MHz



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Packaging Details

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

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