



## 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 27.0950MHz
- Frequency Stability  $\pm 25.00\text{ppm}$
- Operating Temperature Range 0.00 to 70.00°C
- Ageing (@ 25°C):  $\pm 3\text{ppm max}$

## Electrical Parameters

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

## Frequency Adjustment

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

## Output Details

- Output Compatability 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% Vs) to pad 2 enables oscillator output  
Logic '0' (<30% Vs) 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% of Vs
- VoL: <10% of Vs

## Noise Parameters

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

## Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Drop: 1.2m drop (3 times) onto a hard surface
- Vibration: 1.5mm amplitude, 10-55-10Hz, full sine wave, 2mins 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



## Sales Office Contact Details:

UK: +44 (0)1460 270200  
Germany: 0800 1808 443

France: 0800 901 383  
USA: +1.760.318.2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)  
Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Packaging Details**

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

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