VCXO Specification

IQXV-57

ISSUE 1; March 2016

Description

- Voltage controlled crystal oscillator in a ceramic package with a hermetically sealed metal lid

Frequency Parameters

- Frequency 1.0MHz to 79.0MHz
- Frequency Stability ±20.00ppm to ±50.00ppm
- Ageing (@ 25°C): ±3ppm max

Electrical Parameters

- Supply Voltage 2.5V ±5%

Frequency Adjustment

- Pulling ±150ppm min
- Control Voltage 1.25V ±1.25V
- Input Impedence 2MΩ min
- Linearity: ±10% max

Operating Temperature Ranges

- 0 to 70°C
- -40 to 85°C

Output Details

- Output Compatability HCMOS
- Drive Capability 15pF max
- 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

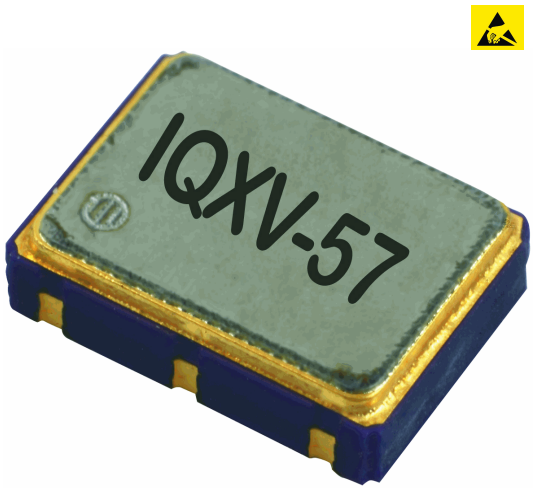
- VoH: >90% of Vs
  VoL: <10% of Vs

Noise Parameters

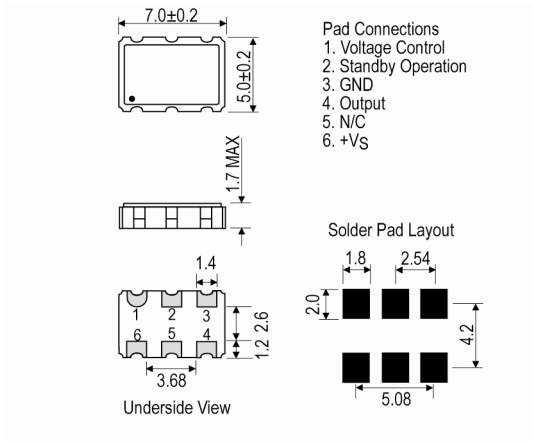
- Period Jitter (pk-pk): 100ps max
- Period Jitter (one sigma): 25ps max

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



Outline (mm)



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Ordering Information

- Frequency*
  Model*
  Output
  Frequency Stability (over operating temperature range)*
  Operating Temperature Range*
  Supply Voltage
  Pullability
  (*minimum required)
- Example
  10.0MHz IQXV-57
  HCMOS ±50ppm -40 to 85C 2.5V ±150ppm min

Compliance

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

Packaging Details

- Pack Style: Bulk Loose in bulk pack
  Pack Size: 1
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
  Pack Size: 1,000

Electrical Specification - maximum limiting values 2.5V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	20.0MHz	0 to 70	±20.0	10	10	45/55%
		-40 to 85	±25.0	10	10	45/55%
20.000001MHz	40.0MHz	0 to 70	±20.0	15	8	45/55%
		-40 to 85	±25.0	15	8	45/55%
40.000001MHz	79.0MHz	0 to 70	±20.0	25	5	45/55%
		-40 to 85	±25.0	25	5	45/55%

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