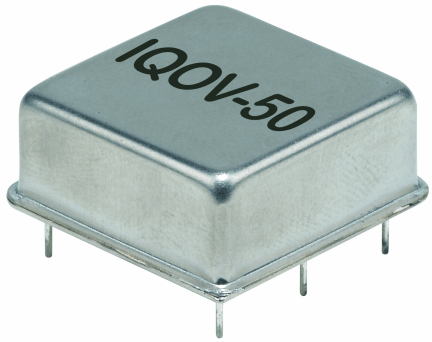
ISSUE 2; January 2016

Description

- Hermetically sealed oven controlled crystal oscillator (OCXO)
  Low phase noise and low jitter optimised design
  Optional reference voltage

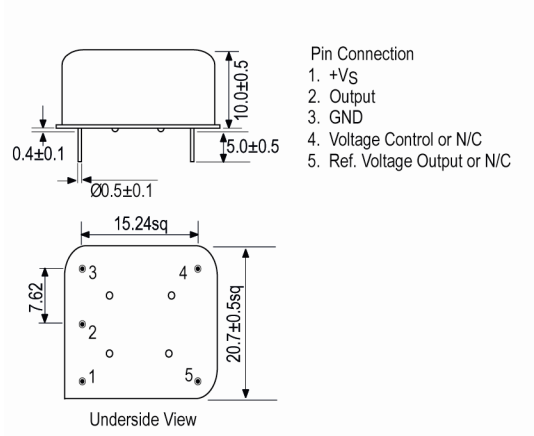
  Please note: This document is intended to illustrate the general capability and versatility of IQD's design. For specific enquiries please contact one of IQD's sales offices where we can tailor a unique specification to meet your needs.



Frequency Parameters

- Frequency 4.0MHz to 80.0MHz
- Frequency Stability ±30.00ppb to ±100.00ppb
- Developed Frequencies:
  10.0MHz 12.80MHz 19.20MHz 19.440MHz 20.0MHz 25.0MHz
  25.60MHz 38.40MHz 38.880MHz 40.0MHz
- Frequency Tolerance Example: ±1000ppb
  Measurment at 25°C referance to nominal frequency.
- Frequency Stability vs Temperature Range:
  Tightest Stability: ±30ppb 0 to 60°C
  Widest Temperature Range: ±100ppb -40 to 75°C
- Ageing (typ @ 10.0MHz after 30 days continuous operation):
  Ageing per day: ±5ppb
  After 1st year: ±500ppb
  After 10 years: ±3000ppb
- Supply Voltage Coefficiant Example: ±10ppb ref Vs±5%
- Load Coefficiant Example: ±10ppb ref ±5% load change

Outline (mm)



Electrical Parameters

- Supply Voltage 3.3V
- Supply Voltage: Available in 5.0V or 3.3V
- Current Consumption example values:
  5.0V @ 25°C steady state, 200mA max
  5.0V Warm up, 500mA max
  3.3V @ 25°C steady state, 350mA max
  3.3V Warm up, 800mA max
- Reference Voltage Output (optional): Customer specified value (A very stable DC output voltage, made available to the designer for use with a voltage divider circuit on the Voltage Control Input)

Frequency Adjustment

- Frequency Adjustment Example Range: ±3000ppb to ±8000ppb
- Control Voltage Example:
  For 3.3V supply: 1.65V ±1.65V
  For 5.0V supply: 2.5V ±2.5V
- Linearity Example: 10% max
- For other frequency/specification combinations please contact our sales offices
- Slope (standard): Positive
- Input Impeadance Example: 100kohms

Operating Temperature Ranges

- 0 to 60°C
- -40 to 75°C

Sales Office Contact Details:

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Germany: 0800 1808 443 USA: +1.760.318.2824 Web: www.iqdfrequencyproducts.com

Output Details

- Output Compatability HCMOS
- Output Load HCMOS: 15pF standard

Noise Parameters

- Phase Noise typical figures @ 10.0MHz, (dBc/Hz):

offset	typical	max
1Hz	-80	-70
10Hz	-110	-100
100Hz	-135	-125
1kHz	-150	-145
10kHz	-155	-150
100kHz	-155	-150

- Allan Variance Example: 1E-10 for 1s

Environmental Parameters

- Storage Temperature Range: -55 to 105°C
- Vibration: IEC 68-2-06 Test Fc, Test condition 0.75mm 10G acceleration 10Hz to 500Hz, one cycle per 30mins 2hrs test time
- Shock: IEC 68-2-27, 50G, 11ms, half sine, 3 times in 3 directions

Ordering Information

- Minimum data needed to open an enquiry:-
  Frequency
  Model
  Output Type
  Supply Voltage
  Frequency Stability (over operating temperature range)
  Operating Temperature Range
  Frequency Adjustment
  Reference Voltage Output

Compliance

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

Packaging Details

- Pack Style: Bulk Supplied tube or box packaging
  Pack Size: 80

Electrical Specification - Example values 3.3V

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppb	mA	ns	%
4.0MHz	80.0MHz	0 to 60	±30.0	-	5	45/55
		-40 to 75	±100.0	-	5	45/55

This document was correct at the time of printing; please contact your local sales office for the latest version.
Click to view latest version on our website.

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