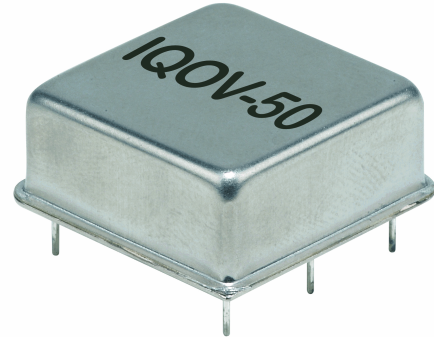


ISSUE 2; January 2016

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: $\pm 30.00\text{ppb}$ to $\pm 100.00\text{ppb}$
- 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: $\pm 1000\text{ppb}$
 Measurement at 25°C reference to nominal frequency.
- Frequency Stability vs Temperature Range:
 Tightest Stability: $\pm 30\text{ppb}$ 0 to 60°C
 Widest Temperature Range: $\pm 100\text{ppb}$ -40 to 75°C
- Ageing (typ @ 10.0MHz after 30 days continuous operation):
 Ageing per day: $\pm 5\text{ppb}$
 After 1st year: $\pm 500\text{ppb}$
 After 10 years: $\pm 3000\text{ppb}$
- Supply Voltage Coefficient Example: $\pm 10\text{ppb}$ ref Vs $\pm 5\%$
- Load Coefficient Example: $\pm 10\text{ppb}$ ref $\pm 5\%$ load change

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)

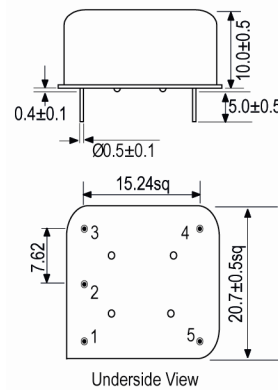
Frequency Adjustment

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

Operating Temperature Ranges

- 0 to 60°C
- 40 to 75°C

Outline (mm)



- Pin Connection
- +Vs
 - Output
 - GND
 - Voltage Control or N/C
 - Ref. Voltage Output or N/C

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
 Web: www.iqdfrequencyproducts.com

Output Details

- Output Compatibility 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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