

Description

- Small SMD case style/low height with hermetically sealed oven controlled crystal oscillator (OCXO) Tight temperature stability
 - Low phase noise and short term stability optimised design AT-Cut and SC-Cut crystal designs
 - 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

- 10.0MHz to 40.0MHz ±3.00ppb to ±5.00ppb
- Frequency Stability **Developed Frequency:**
- 10.0MHz, 13.0MHz, 16.3840MHz, 32.7680MHz, 38.40MHz Frequency Tolerance Example: ±500ppb
- Measurment at 25°C referance to nominal frequency. Frequency Stability vs Temperature Range:
- Tightest Stability: ±3ppb 0 to 60°C Widest Temperature Range: ±5ppb -40 to 75°C
- For other frequency/specification combinations please contact our sales offices

3.3V

- Ageing (after 30 days of continuous operation, referred @ 25°C): Ageing per day: ±0.5ppb max
 - After 1st year: ±50ppb max
 - After 10 years: ±300ppb max
- Supply Voltage Coefficiant Example: ±1ppb ref Vs±5%
- Load Coefficiant Example: ±1ppb ref ±5% load change

Electrical Parameters

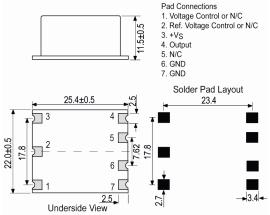
- Supply Voltage
- Supply Voltage: Available in 12.0V, 5.0V and 3.3V
- Current Consumption: 12.0V @ 25°C steady state, 180mA max 12.0V Warm-up, 350mA max 5.0V @ 25°C steady state, 200mA max 5.0V Warm-up, 500mA max 3.3V @ 25°C steady state, 350mA max 3.3V Warm-up, 800mA max
- Reference Voltage Output: 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 Range: ±1000ppb to ±2000ppb
- Control Voltage Example:
- For 3.3V supply: 1.65V ±1.65V
- For 5.0V supply: 2.5V ±2.5V
- Linearity Example: 10% max
- Input Impeadance Example: 100kohms
- Slope (standard): Positive







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





Operating Temperature Ranges

- 0 to 60°C
- -40 to 75°C

Output Details

- Output Compatability HCMOS/Sinewave
- Available with either HCMOS or Sinewave output
 HCMOS Typical Parameters (15pF load): Rise and fall time: 10ns max Duty Cycle 45/55%
- Sinewave Typical Parameters (50ohm load): Output Level: 6 to 10dBm Harmonic Suppression: -30dBc max Spurious Suppression: -60dBc max

Noise Parameters

- Phase Noise typical figures @ 10.0MHze (dBc/Hz): Offset Typ Max 1Hz -90 -80
 - 10Hz -120 -110 100Hz -140 -130
 - 1kHz -145 -140
 - 10kHz -150 -145
- 100kHz -150 -145 Allan Variance Example: 5E-11 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
 Supply Voltage
 Output
 Frequency Stability (over operating temperature range)
 Operating Temperature Range
 Frequency Adjustment
 Reference Voltage Output

Compliance

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

Packaging Details

Pack Size: 75

 Pack Style: Bulk Supplied tube or box packaging Pack Size: 75
 Pack Style: Reel Tape & reel in accordance with EIA-481-D

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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	%
10.0MHz	40.0MHz	0 to 60	±3.0	-	10	45/55
		-40 to 75	±5.0	-	10	45/55

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

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