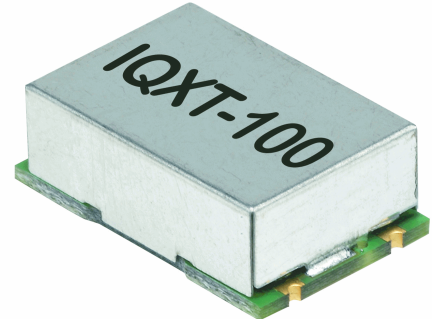


ISSUE 2; June 2019

### Description

- 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. Non hermetically sealed temperature compensated crystal oscillator. Tuning range also available.



### Frequency Parameters

- Frequency: 1.0MHz to 800.0MHz
- Frequency Stability:  $\pm 0.28\text{ppm}$  to  $\pm 2.00\text{ppm}$
- Ageing:  $\pm 1\text{ppm}$  in the first year,  $\pm 3\text{ppm}$  after 10 years
- Frequency Stability Options:
  - $\pm 0.28\text{ppm}$  max
  - $\pm 0.5\text{ppm}$  max
  - $\pm 1.0\text{ppm}$  max
  - $\pm 1.5\text{ppm}$  max
  - $\pm 2.0\text{ppm}$  max
 Other combinations possible please contact Sales office
- Typical Frequency vs Supply Voltage Change:  $V_s \pm 5\% = \pm 0.1\text{ppm}$
- Typical Frequency vs Load Change:
  - Sinewave 50ohms  $\pm 10\% = \pm 0.2\text{ppm}$
  - HCMOS 15pF  $\pm 10\% = \pm 0.2\text{ppm}$

### Electrical Parameters

- Supply Voltage: 5.0V
- Supply Voltage: Available in 5.0V and 3.3V (Lower than 3.3V is available on request)
- Typical Supply Current Draw (Sinewave):
 

Frequency	Current draw
@1.0MHz	5mA
@800.0MHz	100mA

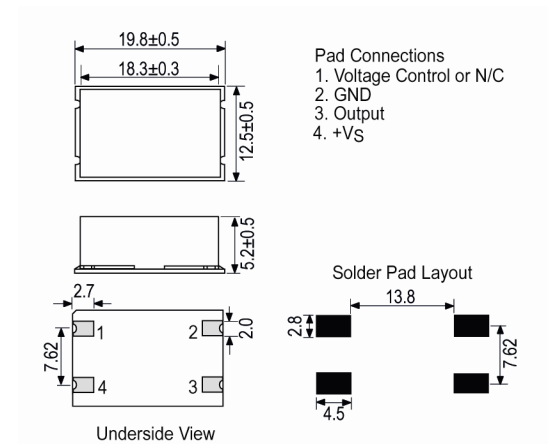
### Frequency Adjustment

- Frequency Adjustment Range options:
  - $\pm 5\text{ppm}$  min
  - $\pm 10\text{ppm}$  min
  - $\pm 20\text{ppm}$  min (limited availability)
  - No pulling option
- Control Voltage Range:
  - For 3.3V supply =  $1.65\text{V} \pm 1.5\text{V}$
  - For 5.0V supply =  $2.5\text{V} \pm 2.0\text{V}$

### Operating Temperature Ranges

- 10 to 60°C
- 20 to 70°C
- 40 to 85°C

### Outline (mm)



### Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1 760 318 2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

**Output Details**

- Output Compatibility                    HCMOS/Sinewave
- Sinewave Output Level:  
  @3.3V 0dBm typ  
  @5.0V 0dBm typ (+10dBm available on request)
- HCMOS Output Level:  
  VoH = >90% Vs  
  VoL = < 10% Vs  
  Duty Cycle = 40/60%  
  Rise and fall time = 10ns max

**Noise Parameters**

- Typical Phase Noise Figures @ 20.0MHz:  
  Offset   Typical  
  10Hz    -80dBc  
  100Hz   -120dBc  
  1kHz     -140dBc  
  10kHz    -150dBc  
  100kHz   -155dBc

**Environmental Parameters**

- Storage Temperature Range: -55 to 125°C
- MIL-STD-883C, Method 2007, Condition A
- Shock: MIL-STD-883C, Method 2002, Condition B

**Ordering Information**

- Minimum Enquiry Information:  
  Frequency  
  Model  
  Supply Voltage  
  Output  
  Frequency Stability (over operating temperature range)  
  Operating Temperature Range  
  Frequency Adjustment

**Compliance**

- RoHS Status (2015/863/EU)       Compliant
- REACH Status                       Compliant
- MSL Rating (JDEC-STD-033):       Not Applicable

**Packaging Details**

- Pack Style: Bulk           Supplied in tube or box packaging  
  Pack Size: 1
- Pack Style: Tape         Tape & reel in accordance with EIA-481-D  
  Pack Size: 250

**Electrical Specification - maximum limiting values 5.0V**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	800.0MHz	-10 to 60	±0.28	-	-	-
		-20 to 70	±0.28	-	-	-
		-40 to 85	±0.28	-	-	-

*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.](#)

**Sales Office Contact Details:**

UK: +44 (0)1460 270200

USA: +1 760 318 2824

Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)