

ISSUE 1; April 2016

Description

- Tight stability, hermetically sealed oscillator in a 3.2 x 2.5mm SMD package.



Frequency Parameters

- Frequency 4.0MHz to 54.0MHz
- Frequency Stability $\pm 10.00\text{ppm}$ to $\pm 15.00\text{ppm}$
- Frequency Stability is inclusive of tolerance @ 25°C, operating temperature range, supply voltage variation, load variation and ageing in 1st year @ 25°C.
- Developed Frequencies: 10.0MHz, 12.0MHz, 12.2880MHz, 16.0MHz, 17.17760MHz, 18.4320MHz, 20.0MHz, 22.11840MHz, 24.0MHz, 25.0MHz, 26.0MHz, 27.0MHz, 30.0MHz, 32.0MHz, 33.0MHz, 38.40MHz, 40.0MHz, 44.0MHz, 44.5450MHz, 44.550MHz, 48.0MHz, 50.0MHz.

Electrical Parameters

- Supply Voltage 3.0V $\pm 10\%$

Operating Temperature Ranges

- -20 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

Output Control

- Logic '1' (>70%Vs) to pad 1 enables oscillator output. Logic '0' (<30%Vs) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state. No connection to pad 1 enables oscillator output.
- Standby Current: 10µA max

Output Levels

- VoH: 90%Vs min
- VoL: 10%Vs max

Noise Parameters

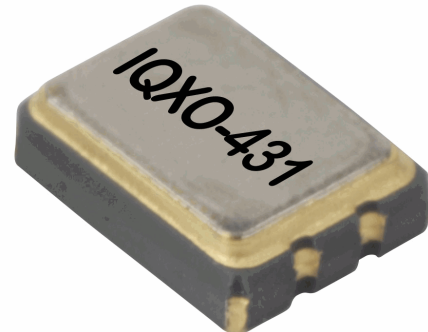
- Period Jitter (RMS 1σ): 3ps typ

Environmental Parameters

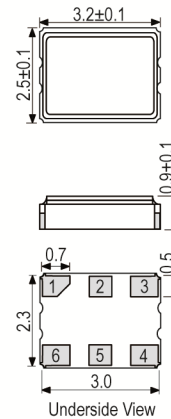
- Storage Temperature Range: -40 to 85°C
- Drop: 100cm drop (3 times) onto hard wooden board.
- Vibration: Frequency 10Hz-55Hz, amplitude 1.5mm (10Hz-36Hz), 4G (36Hz-55Hz), sweep time 1min/oct, duration 2hrs in 3 mutually perpendicular planes.

Manufacturing Details

- Maximum Process Temperature: 260°C (10secs max)



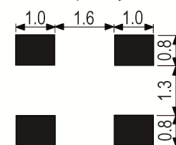
Outline (mm)



Pad Connections

1. E/D
2. N/C
3. GND
4. Output
5. N/C
6. +Vs

Solder pad layout



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

Ordering Information

- Frequency*
Model*
Output Compatibility
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Supply Voltage
(*minimum required)
- Example
10.0MHz IQXO-431
CMOS ±15ppm -40 to 85C 3.0V

Compliance

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

Packaging Details

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

Electrical Specification - maximum limiting values 3.0V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
4.0MHz	54.0MHz	-20 to 70	±10.0	7	5	45/55%
		-40 to 85	±10.0	7	5	45/55%

This document was correct at the time of printing; please contact your local sales office for the latest version.

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Sales Office Contact Details:

UK: +44 (0)1460 270200
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France: 0800 901 383
USA: +1.760.318.2824

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Web: www.iqdfrequencyproducts.com