

ISSUE 4; April 2016

Description

- 4 x 2.5mm SMD crystal in a hermetically sealed ceramic package with a seam sealed metal lid. Often used in Bluetooth, ZigBee and similar RF applications.

Frequency Parameters

- Frequency: 12.0MHz to 50.0MHz
- Frequency Tolerance: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Tolerance Condition: @ 25°C
- Frequency Stability: $\pm 10.00\text{ppm}$ to $\pm 50.00\text{ppm}$
- Ageing: $\pm 3\text{ppm}$ max per year @ 25°C
- Developed Frequencies: 12.0MHz, 13.0MHz, 13.560MHz, 14.318180MHz, 14.74560MHz, 16.0MHz, 16.93440MHz, 18.4320MHz, 19.66080MHz, 20.0MHz, 24.5760MHz, 25.0MHz, 26.0MHz, 27.0MHz, 27.120MHz & 29.020MHz.

Electrical Parameters

- Load Capacitance (CL): 9.0pF to 30.0pF
- Shunt Capacitance (C0): 5pF max
- Drive Level: 100µW max

Operating Temperature Ranges

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

Environmental Parameters

- Storage Temperature Range: -40°C to 90°C
- Drop: 75cm drop (3 times) onto hard wooden board.
- Vibration: 1.5mm amplitude, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane.

Ordering Information

- Frequency*
- Model*
- Frequency Tolerance (@ 25°C)*
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Load Capacitance*
- Overtone
- (*minimum required)
- Example
20.0MHz CFPX-201
50/50/-10 to 60C/10 FUND

Compliance

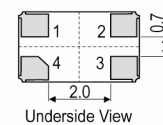
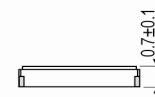
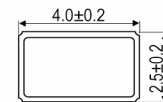
- RoHS Status (2011/65/EU): Compliant
- REACH Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel: Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Bulk: Loose in bulk pack
Pack Size: 100



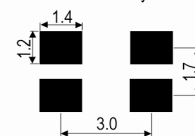
Outline (mm)



Pad Connections

- Crystal
 - GND & Lid
 - Crystal
 - GND & Lid
- Note: pads 2 & 4 should be connected to GND for correct operation.

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

Electrical Specification - maximum limiting values

| Frequency Min | Frequency Max | Temperature Range | Stability (Min*) | Over Tone Order | ESR |
|---------------|---------------|-------------------------------------|-------------------|-----------------|-----|
| | | °C | ppm | | Ω |
| 12.0MHz | 12.999999MHz | -10 to 60 -20 to 70 -40 to 85 | ±10 ±15 ±15 | Fundamental | 100 |
| 13.0MHz | 18.999999MHz | -10 to 60 -20 to 70 -40 to 85 | ±10 ±15 ±15 | Fundamental | 80 |
| 19.0MHz | 39.999999MHz | -10 to 60 -20 to 70 -40 to 85 | ±10 ±15 ±15 | Fundamental | 60 |
| 40.0MHz | 50.0MHz | -10 to 60 -20 to 70 -40 to 85 | ±10 ±15 ±15 | Fundamental | 50 |

*Stability Maximum values ±50ppm

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
Germany: 0800 1808 443

France: 0800 901 383
USA: +1.760.318.2824

Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com