

ISSUE 9; May 2021

Description

- Surface mount temperature compensated crystal oscillator (TCXO) providing a high degree of frequency stability over a wide temperature range in a hermetically sealed ceramic package



Frequency Parameters

- Frequency: 10.0MHz to 40.0MHz
- Frequency Tolerance: $\pm 1.00\text{ppm}$
- Frequency Stability: $\pm 0.90\text{ppm}$
- Ageing: $\pm 1\text{ppm typ in 1st year @ } 25^\circ\text{C}$

Electrical Parameters

- Supply Voltage: $3.3\text{V} \pm 0.3\text{V}$
- Supply Voltage Variation (@ $\pm 5\%$ change):
 $< 30\text{MHz} \pm 0.3\text{ppm}$
 $30\text{MHz to } < 40\text{MHz} \pm 0.4\text{ppm}$
 $40\text{MHz} \pm 0.5\text{ppm}$
- Load Variation (@ $\pm 10\%$ change): $\pm 0.2\text{ppm}$
- Variation After Reflow: $\pm 1.0\text{ppm}$

Operating Temperature Ranges

- 20 to 70°C

Output Details

- Output Compatibility: HCMOS
- Drive Capability: 15pF nom

Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: IEC 60068-2-27, Test Ea: 980m/s^2 acceleration for 6ms, 3 shocks in each of 3 mutually perpendicular planes
- Vibration: IEC 60068-2-6, Test Fc, Procedure B4: 10Hz-60Hz, 1.5mm displacement, 60-2000Hz at 98.1m/s^2 , 30mins in 3 mutually perpendicular planes at 1oct/min
- Solderability: MIL-STD-202, Method 208, Category 3

Manufacturing Details

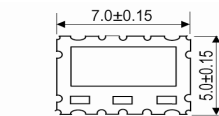
- Soldering: Suitable for Convection Reflow soldering, peak temperature 260°C for 10secs max
- Washing: Able to withstand aqueous washing
- RoHS Terminations: NiCoAu
- RoHS Reflow: 260degC 10s

Ordering Information

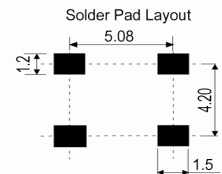
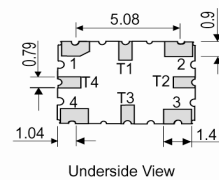
- Frequency*
- Model*
- Output
- Frequency Stability (over operating temperature range)
- Operating Temperature Range
- Supply Voltage
- (*minimum required)
- Example
- 40.0MHz CFPT-37
- HCMOS $\pm 0.9\text{ppm}$ -20 to 70°C 3.3V



Outline (mm)



Pad Connections
 1.N/C
 2.GND
 3.Output
 4.+Vs
 T1, T2, T3, T4 N/C



Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1 760 318 2824

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

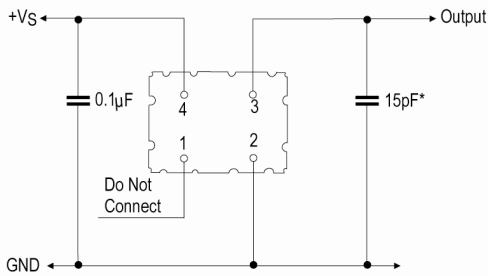
Compliance

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

Packaging Details

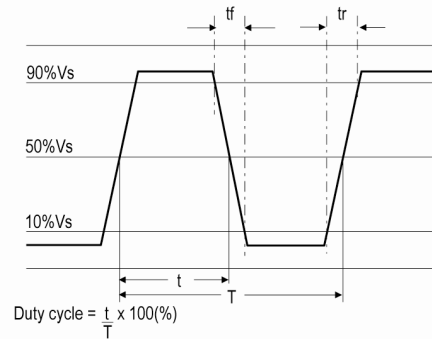
- Pack Style: Bulk Loose in bulk pack
Pack Size: 100
- Pack Style: Cutt In tape cut from a reel
Pack Size: 100
- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 500

Test Circuit



* Inclusive of probe and jig capacitance

Wave Form



Electrical Specification - maximum limiting values 3.3V ±0.3V

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw (typ)	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
10.0MHz	10.0MHz	-20 to 70	±0.9	3	8	45/55%
12.8MHz	12.8MHz	-20 to 70	±0.9	3	8	45/55%
13.0MHz	13.0MHz	-20 to 70	±0.9	3	8	45/55%
14.4MHz	14.4MHz	-20 to 70	±0.9	3	8	45/55%
16.32MHz	16.32MHz	-20 to 70	±0.9	3	8	45/55%
16.384MHz	16.384MHz	-20 to 70	±0.9	3	8	45/55%
19.44MHz	19.44MHz	-20 to 70	±0.9	3	8	45/55%
20.0MHz	20.0MHz	-20 to 70	±0.9	3	8	45/55%
26.0MHz	26.0MHz	-20 to 70	±0.9	3	8	45/55%
32.768MHz	32.768MHz	-20 to 70	±0.9	3	8	45/55%
40.0MHz	40.0MHz	-20 to 70	±0.9	3	8	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.](#)

Sales Office Contact Details:

UK: +44 (0)1460 270200

USA: +1 760 318 2824

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com