

ISSUE 1; April 2016

Description

- A temperature compensated crystal oscillator with voltage control in a hermetically sealed surface mount package

Frequency Parameters

- Frequency 8.192MHz to 52.0MHz
- Frequency Tolerance $\pm 2.50\text{ppm}$
- Tolerance Condition @ 25°C $\pm 2^\circ\text{C}$
- Frequency Stability $\pm 1.00\text{ppm}$ to $\pm 2.50\text{ppm}$
- Ageing $\pm 1\text{ppm}$ max per year @ 25°C
- Supply Voltage Variation ($\pm 5\%$ change): $\pm 0.2\text{ppm}$
- Load Variation ($\pm 5\%$ change): $\pm 0.2\text{ppm}$

Electrical Parameters

- Supply Voltage Options ($\pm 5\%$): 1.8V, 2.5V, 2.8V, 3.0V & 3.3V

Frequency Adjustment

- Pulling $\pm 5\text{ppm}$ min
- Control Voltage 50%Vs $\pm 50\%$ Vs

Operating Temperature Ranges

- -30 to 85°C

Output Details

- Output Compatibility Clipped Sine
- Drive Capability 10k Ω //10pF
- Output Voltage Level: 0.8V pk-pk min

Noise Parameters

- Phase Noise (typ @ 20MHz):
 - 90dBc/Hz @ 10Hz
 - 115dBc/Hz @ 100Hz
 - 128dBc/Hz @ 1kHz
 - 145dBc/Hz @ 10kHz
 - 149dBc/Hz @ 100kHz
 - 150dBc/Hz @ 1MHz

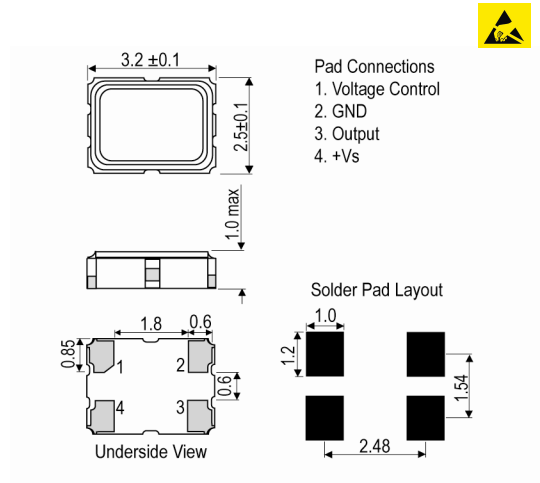
Environmental Parameters

- Storage Temperature Range: -40 to 85°C
- Drop: JIS-C-6701: 75cm drop (3 times) onto hard wooden board
- Vibration: MIL-STD-883, Method 2007.2: 20G (20Hz-2000Hz), 1.5mm amplitude, in 3 mutually perpendicular planes, 4mins for each cycle

Ordering Information

- Frequency*
- Model*
- Output
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage*
- Frequency Adjustment (minimum required*)
- Example
 16.0MHz IQXT-192-1
 Clipped Sine $\pm 2.5\text{ppm}$ -30 to 85C 3.3V $\pm 5\text{ppm}$ min

Outline (mm)



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Compliance

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

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 3,000

Electrical Specification - maximum limiting values

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
8.192MHz	52.0MHz	-30 to 85	±1.0	2	-	-

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