

ISSUE 1; July 2024

Description

- Ceramic package with a hermetically seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 Rev D and with IATF-16949:2016 release. Not suitable for safety critical applications.



Frequency Parameters

- Frequency: 1.0MHz to 50.0MHz
- Frequency Stability: $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Supply Voltage: 1.8V $\pm 5\%$

Operating Temperature Ranges

- -40 to 85°C
- -40 to 125°C

Output Details

- Output Compatibility: CMOS
- Drive Capability: 15pF

Output Control

- Enable/Disable Operation:
Logic '1' (>70% Vs) to pad 1 enables oscillator output.
Logic '0' (<30% Vs) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state.
No connection to pad 1 enables oscillator output.
- Standby Current:
-40 to 85°C: 10µA max
-40 to 125°C: 20µA max

Environmental Parameters

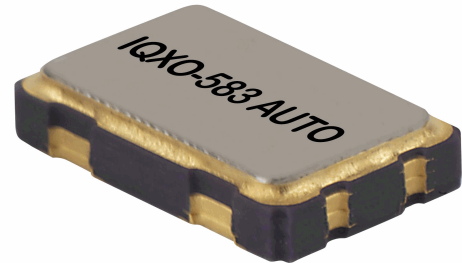
- Storage Temperature Range: -55 to 150°C
- Qualified to AEC-Q200 Rev D

Ordering Information

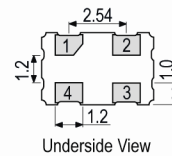
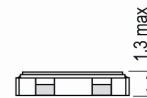
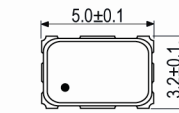
- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage (*minimum required)
- Example
20.0MHz IQXO-583 AUTO
CMOS $\pm 100\text{ppm}$ -40 to 125C 1.8V

Compliance

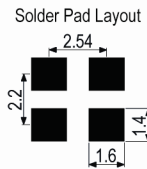
- RoHS Status (2015/863/EU): Compliant
- REACh Status: Compliant
- MSL Rating (JDEC-STD-033): Not Applicable



Outline (mm)



- Pad Connections
1. Enable/Disable
 2. GND
 3. Output
 4. +Vs



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Packaging Details

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

Electrical Specification - maximum limiting values 1.8V \pm 5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	9.999999MHz	-40 to 85	\pm 25.0	5	5	40/60%
		-40 to 125	\pm 50.0	5	5	40/60%
10.0MHz	19.999999MHz	-40 to 85	\pm 25.0	6	5	40/60%
		-40 to 125	\pm 50.0	6	5	40/60%
20.0MHz	31.999999MHz	-40 to 85	\pm 25.0	6	5	40/60%
		-40 to 125	\pm 50.0	6	5	40/60%
32.0MHz	50.0MHz	-40 to 85	\pm 25.0	15	5	40/60%
		-40 to 125	\pm 50.0	15	5	40/60%

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