

ISSUE 1; March 2016

### Description

- Ceramic package with a hermetically seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 and with TS16949 release.



### Frequency Parameters

- Frequency: 1.0MHz to 135.0MHz
- 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: 3.3V  $\pm 10\%$

### 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

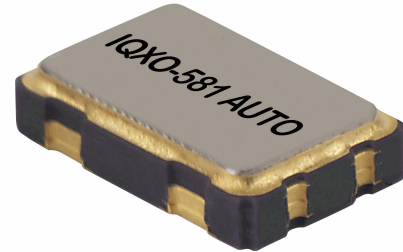
- Storage Temperature Range: -55 to 150°C
- Qualified to AEC-Q200

### Ordering Information

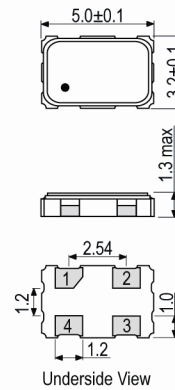
- Frequency\*
- Model\*
- Output
- Frequency Stability\*
- Operating Temperature Range\*
- Supply Voltage
- (\*minimum required)
- Example  
20.0MHz IQXO-581 AUTO  
CMOS  $\pm 100\text{ppm}$  -40 to 125C 3.3V

### Compliance

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

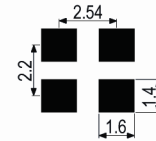


### Outline (mm)



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

### Solder Pad Layout



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**Packaging Details**

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

**Electrical Specification - maximum limiting values 3.3V ±10%**

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	19.999999MHz	-40 to 85	±25.0	7	10	40/60%
		-40 to 125	±50.0	7	10	40/60%
20.0MHz	31.999999MHz	-40 to 85	±25.0	12	10	40/60%
		-40 to 125	±50.0	12	10	40/60%
32.0MHz	49.999999MHz	-40 to 85	±25.0	20	10	40/60%
		-40 to 125	±50.0	20	10	40/60%
50.0MHz	79.999999MHz	-40 to 85	±25.0	25	8	40/60%
		-40 to 125	±50.0	25	8	40/60%
80.0MHz	99.999999MHz	-40 to 85	±25.0	30	5	40/60%
		-40 to 125	±50.0	30	5	40/60%
100.0MHz	135.0MHz	-40 to 85	±25.0	40	4	40/60%
		-40 to 125	±50.0	40	4	40/60%

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