

# IQXO-580, -581 AUTO

ISSUE 0.2; 1 NOVEMBER 2010 - RoHS 2002/95/EC

## Description

3.3V or 5V surface mount oscillators in a ceramic package, with a hermetically sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 and available with TS16949 release.

## Package Outline

- 5 x 3.2mm

## Frequency Range

- 1.5 to 160MHz

## Output Compatibility & Load

- Tri-state HCMOS
- Drive Capability

Maximum Compatibility Load	
1.5 to 50.0MHz	50pF max
>50.0MHz to 80.0MHz	30pF max
>80.0MHz to 160.0MHz	15pF max

## Supply Voltages

- 5.0V IQXO-580 AUTO
- 3.3V IQXO-581 AUTO

## Frequency Stabilities

- ±50ppm, ±100ppm (inclusive of supply voltage and output load variations over the operating temperature range)

## Operating Temperature Range

- 40 to 85°C

## Storage Temperature Range

- 55 to 125°C

## Tri-state Operation

- Logic '1' to pad 1 enables oscillator output
- Logic '0' to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
- No connection to pad 1 enables oscillator output

## Ageing

- ±5ppm max per year

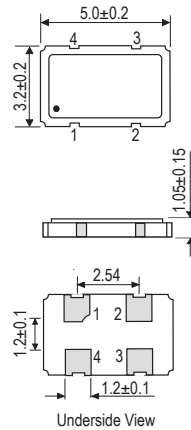
## Environmental

- Qualified to AEC-Q200

## Packaging

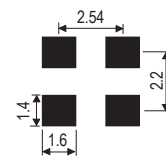
- Loose in bulk pack, 100pcs per bag
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

## Outline (mm) IQXO-580, -581 AUTO

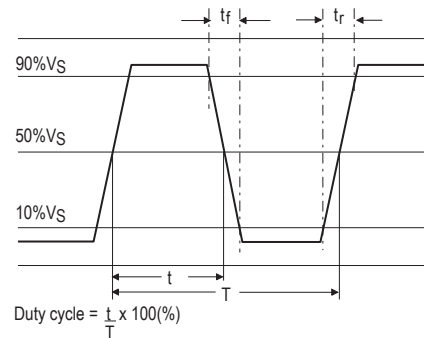


Pad Connections  
 1. Tri-State  
 2. GND  
 3. Output  
 4. +VS

## Solder Pad Layout



## Output Waveform



## Ordering Information (\*minimum required)

- Frequency\*
- Model\*
- Output Compatibility
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage

## Example

- 10.00MHz IQXO-580 AUTO  
 HCMOS ±100ppm -40 to 85C 5.0V

**Electrical Specification - maximum limiting values**

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (10-90%)	Fall Time (tf) (90-10%)	Duty Cycle	Model Number
1.5 to 70.0MHz	±50ppm ±100ppm	5.0V±10%	30mA	12ns	12ns	40/60%	IQXO-580 AUTO
		3.3V±10%					IQXO-581 AUTO
>70.0MHz to 160.0MHz		5.0V±10%	50mA				IQXO-580 AUTO
		3.3V±10%					IQXO-581 AUTO

Note. For any other frequencies / specifications please contact our sales offices

**Test Circuit**

