

# IQXO-350 CLOCK OSCILLATORS

ISSUE 19; 1 NOVEMBER 2008 - RoHS 2002/95/EC

Outline (mm)

## Description

- 14-pin DIL compatible resistance welded enclosure, hermetically sealed with glass to metal seal

## Package Outline

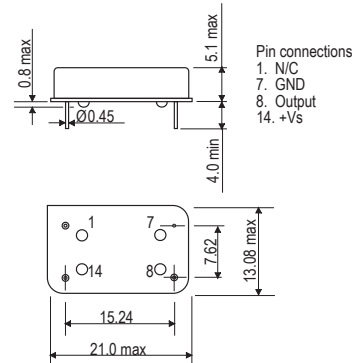
- 14-pin DIL

## Frequency Range

- 1kHz to 160MHz

## Output Compatibility & Load

- HC MOS/TTL
- Drive Capability: 50pF max or 10TTL (<70MHz)  
30pF max (>70 to 160MHz)  
15pF max (1 to < 100kHz)



## Standard Frequency Stabilities

- $\pm 25$ ppm,  $\pm 50$ ppm,  $\pm 100$ ppm (over operating temperature range)

## Operating Temperature Ranges

- 0 to 70°C (IQXO-350)
- 40 to 85°C (IQXO-350I)

## Storage Temperature Range

- 55 to 125°C

## Environmental Specification

- Terminal Strength: 0.91kg max force perpendicular to top and bottom
- Hermetic Seal: not to exceed  $1 \times 10^{-8}$  mBar litres of Helium leakage
- Solderability: MIL-STD-202E, Method 208C
- Vibration: 10 to 55Hz 0.76mm displacement, sweep 60 seconds, duration 2 hours
- Rapid Change of Temperature over Operating Temperature Range: 10 cycles
- Shock: 981m/s<sup>2</sup> for 6ms, three shocks in each direction along the three mutually perpendicular planes

## Marking Includes

- Model Number + Operating Temperature Code (if applicable) + Frequency Stability Code + Frequency Tolerance Code (Optional) + Frequency + Date Code

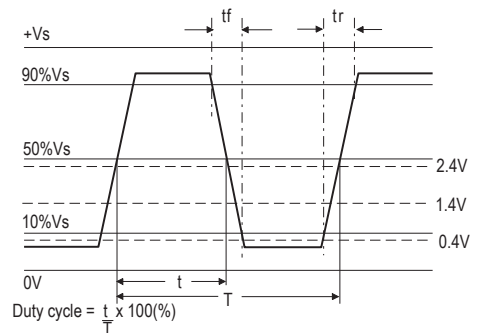
## Packaging

- Bulk

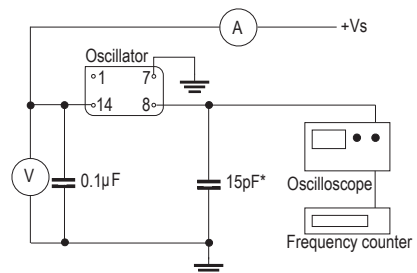
## Minimum Order Information Required

- Frequency + Model Number + Operating Temperature (if applicable) + Frequency Stability

## Output Waveform



## Test Circuit



\*Inclusive of jiggling and equipment capacitance

### Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr)	Fall Time (tf)	Duty Cycle	Model Number
1.0kHz to <100.0kHz	±25ppm, ±50ppm, ±100ppm	5V ±0.25V	10mA	10ns	10ns	45/55%	IQXO-350, 350I
100.0kHz to <250.0kHz				15ns	15ns		
250.0kHz to <5.0MHz			30mA	10ns	10ns		
5.0MHz to <16.0MHz			15mA				
16.0MHz to <30.0MHz			30mA	8ns	8ns		
30.0MHz to <50.0MHz			40mA				
50.0MHz to <70.0MHz			50mA	6ns	6ns	40/60%	
70.0MHz to <160.0MHz			70mA	5ns	5ns		

Ordering Example 22.0MHz IQXO-350 I B

Frequency \_\_\_\_\_

Model number: -350, 350I \_\_\_\_\_

Operating Temperature Code: I = -40 to 85°C Not applicable for 0 to 70°C \_\_\_\_\_

Frequency Stability: A = ±25ppm, B = ±50ppm, C = ±100ppm \_\_\_\_\_

Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practice the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

CLOCK OSCILLATORS