

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

- ± 25 ppm, ± 50 ppm, ± 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 1×10^{-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^2 for 6ms, three shocks in each direction along the three mutually perpendicular planes

Marking Includes

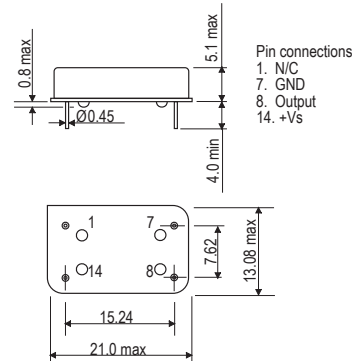
- Model Number + Operating Temperature Code (if applicable) + Frequency Stability Code + Frequency Tolerance Code (Optional) + Frequency + Date Code

Packaging

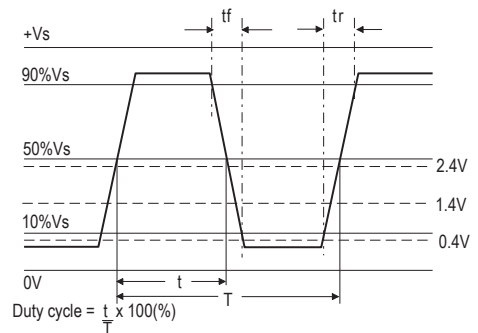
- Bulk

Minimum Order Information Required

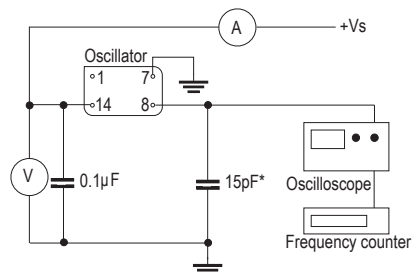
- Frequency + Model Number + Operating Temperature (if applicable) + Frequency Stability



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					
5.0MHz to <16.0MHz			15mA	10ns	10ns			
16.0MHz to <30.0MHz			30mA			40/60%		
30.0MHz to <50.0MHz			40mA	8ns	8ns			
50.0MHz to <70.0MHz			50mA	6ns	6ns			
70.0MHz to <160.0MHz			70mA	5ns	5ns			

Ordering Example

Frequency 22.0MHz IQXO-350 I B

Model number: -350, 350I

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

Frequency Stability: A = $\pm 25\text{ppm}$, B = $\pm 50\text{ppm}$, C = $\pm 100\text{ppm}$

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.