



IQXO-350 CLOCK OSCILLATORS

ISSUE 20; 1 NOVEMBER 2010 - RoHS 2002/95/EC

Not recommended for new designs

Description

- Standard 14pin DIL 5.0V supply crystal oscillators with no standby function
- Crystal oscillator in a 14pin DIL package hermetically sealed
- For a version of this package with a standby function please see our IQXO-149
- For parts that meet tougher environmental specifications please see our IQXO-365
- For parts that meet tough environmental specifications and military temperature range please see our IQXO-625
- For individually screened parts that meet tough environmental specifications and military temperature range please see our IQXO-626
- For tight stabilities over temperature please see our IQXO-415

Frequency Range

- 1kHz to 160MHz

Output Compatibility & Load

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

Frequency Stabilities

- ± 25 ppm, ± 50 ppm, ± 100 ppm (over operating temperature range)

Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

Storage Temperature Range

- 55 to 125°C

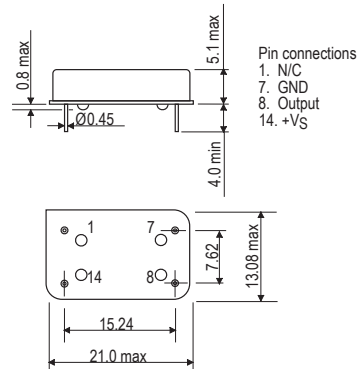
Environmental

- 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: 0.76mm displacement, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane
- Rapid Change of Temperature over Operating Temperature Range: 10 cycles
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes

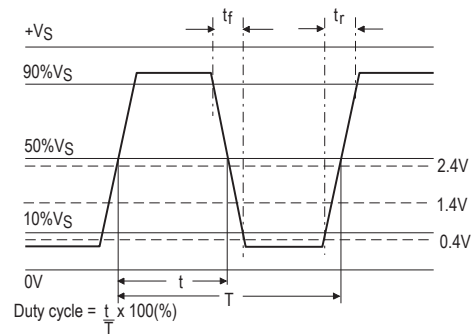
Packaging

- Bulk

Outline (mm)



Output Waveform



Ordering Information (*minimum required)

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage

Example

- 20.0MHz IQXO-350
HCMOS ± 50 ppm 0 to 70C 5.0V





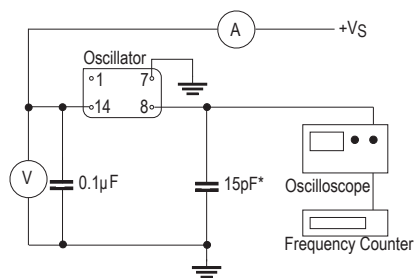
Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (10-90%)	Fall Time (tf) (90-10%)	Duty Cycle	Model Number
1.0kHz to <100.0kHz	±25ppm ±50ppm ±100ppm	5V±0.25V	10mA	10ns	10ns	45/55%	IQXO-350
100.0kHz to <250.0kHz				15ns	15ns		
250.0kHz to <5.0MHz			30mA	10ns	10ns		
5.0MHz to <16.0MHz							
16.0MHz to <30.0MHz			30mA	8ns	8ns		
30.0MHz to <50.0MHz							
50.0MHz to <70.0MHz			50mA	6ns	6ns	40/60%	
70.0MHz to 160.0MHz			70mA	5ns	5ns		

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 offices

Note: For other frequency/specification combinations, please contact our sales offices

Test Circuit



*Inclusive of jigging and equipment capacitance

