

IQXO-70, -71

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Delivery Options

- Common frequencies are available from stock please see p181 for details

Output Compatibility

- Tri-state HCMOS/TTL (5.0V) (IQXO-70)
- Tri-state HCMOS (3.3V) (IQXO-71)

Package Outline

- SMD (surface mount device) ceramic package. Available over -10 to 70°C (IQXO-70, -71) or -40 to 85°C (IQXO-70I, -71I)

Standard Frequencies

- 1.84320MHz, 2.0MHz, 2.0480MHz, 3.68640MHz, 4.0MHz, 5.0MHz, 8.0MHz, 10.0MHz, 12.0MHz, 12.2880MHz, 14.318180MHz, 16.0MHz, 16.3840MHz, 20.0MHz, 24.0MHz, 25.0MHz, 29.49120MHz, 30.0MHz, 32.0MHz, 32.7680MHz, 33.86880MHz, 36.8640MHz, 40.0MHz, 44.23680MHz, 48.0MHz, 50.0MHz, 53.1250MHz, 64.0MHz, 66.6660MHz, 70.0MHz, 80.0MHz, 100.0MHz, 106.250MHz, 125.0MHz

Standard Frequency Stabilities

- ±25ppm, (not available over -40 to 85°C), ±50ppm, ±100ppm (inclusive of supply voltage & output load variations over the operating temperature range)

Operating Temperature Range

- 10 to 70°C (IQXO-70, -71)
- 40 to 85°C (IQXO-70I, -71I)

Storage Temperature Range

- 55 to 125°C

Tri-state Operation

- Logic '1' to pad 1 enables oscillator output, 2.2V min
- Logic '0' to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state, 0.8V max
- No connection to pad 1 enables oscillator output

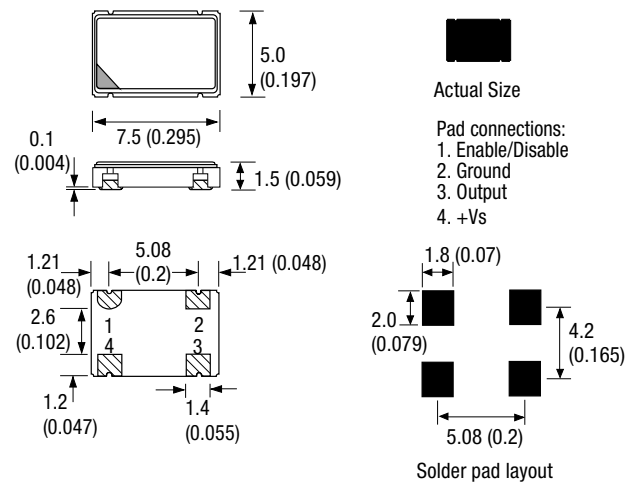
Marking

- Model number (+ Operating Temperature Code; if applicable)
- Frequency Stability Code
- Frequency

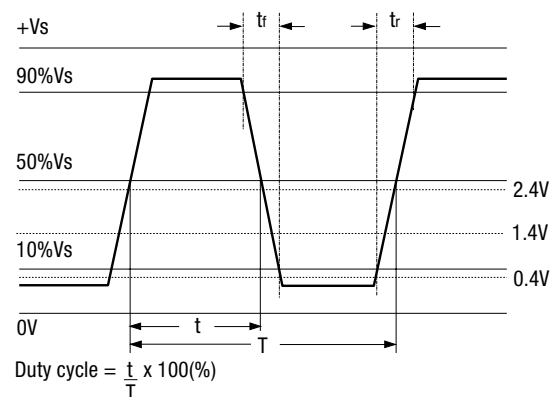
Minimum Order Information Required

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

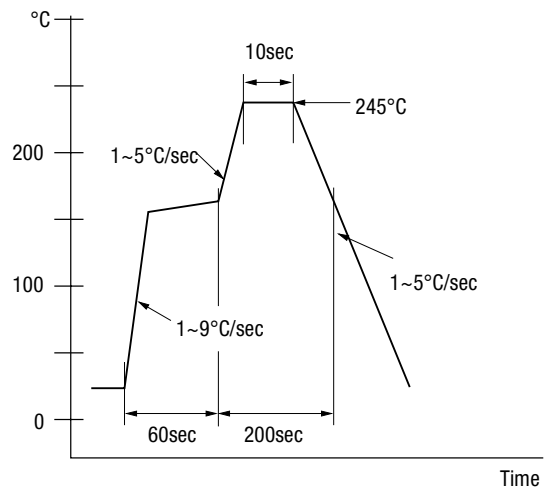
Outline in mm (inches) - (scale 2:1)



Output Waveform



Typical Solder Condition - Infrared Reflow



Electrical Specification – maximum limiting values when measured in test circuit

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (t _r)	Fall Time (t _f)	Duty Cycle	Model Number
1.544 to 25.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V±0.5V	25mA	5ns	5ns	45/55%	IQXO-70, -70I
		3.3V±0.3V	10mA	6ns	6ns	45/55%	IQXO-71, -71I
> 25.0 to 32.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V±0.5V	40mA	5ns	5ns	45/55%	IQXO-70, -70I
		3.3V±0.3V	10mA	6ns	6ns	45/55%	IQXO-71, -71I
> 32.0 to 50.0MHz	±25ppm, ±50ppm, ±100ppm	5.0V±0.5V	40mA	5ns	5ns	45/55%	IQXO-70, -70I
		3.3V±0.3V	15mA	6ns	6ns	45/55%	IQXO-71, -71I
> 50.0 to 67.0MHz	±50ppm, ±100ppm	5.0V±0.5V	60mA	5ns	5ns	45/55%	IQXO-70, -70I
		3.3V±0.3V	18mA	6ns	6ns	40/60%	IQXO-71, -71I
> 67.0 to 80.0MHz	±50ppm, ±100ppm	5.0V±0.5V	73mA	5ns	5ns	45/55%	IQXO-70, -70I
		3.3V±0.3V	30mA	6ns	6ns	40/60%	IQXO-71, -71I
> 80.0 to 125.0MHz	±100ppm	5.0V±0.5V	—	—	—	—	IQXO-70, -70I
		3.3V±0.3V	30mA	6ns	6ns	40/60%	IQXO-71, -71I

Ordering Example

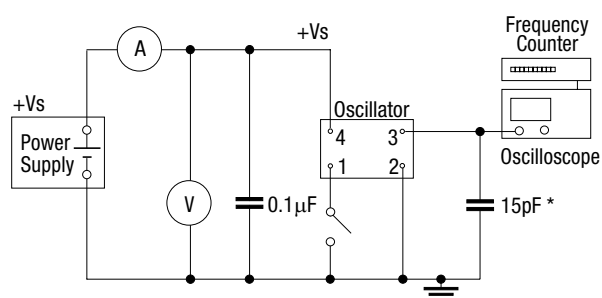
Frequency _____ 24.0MHz

Model No _____ IQXO-71I

Operating Temperature Code: I= −40 to 85°C Not applicable for −10 to 70°C _____ C

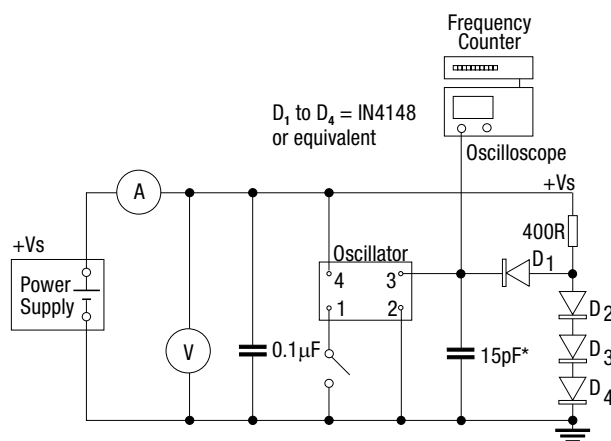
Frequency Stability: A = ±25ppm (not available over −40 to 85°C); B = ±50ppm; C = ±100ppm _____

Test Circuit - HCMOS



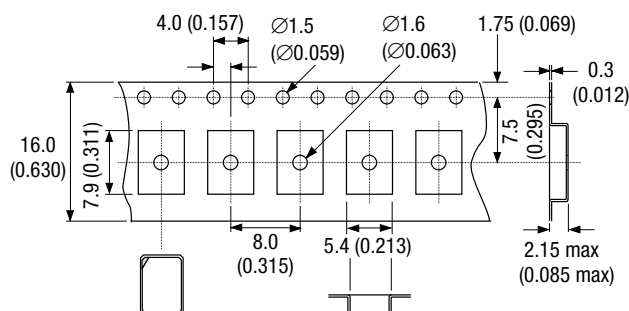
* Inclusive of jiggling & equipment capacitance

Test Circuit - TTL



*Inclusive of jigging & equipment capacitance
Note: IQX0-70, 70I only

Outline in mm (inches) - Tape



Outline in mm (inches) - Reel (scale 1:8)

