

IQXO-70, -71

ISSUE 8; 19 OCTOBER 2004

Delivery Options

- Please contact our sales office for current leadtimes

Output Compatibility

- Tri-state HCMOS/TTL (5.0V) (IQXO-70), Load 50pF max
- Tri-state HCMOS (3.3V) (IQXO-71), Load 15pF max

Package Outline

- 7.5 x 5.0mm SMD Ceramic Package.
Available over -10 to 70°C (IQXO-70, -71) or
-40 to 85°C (IQXO-70I, -71I)

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,
IQXO-70 2.2V min, IQXO-71 0.7Vs min
- Logic '0' to pad 1 disables oscillator output; when
disabled the oscillator output goes to the high
impedance state, IQXO-70 0.8V max, IQXO-71 0.3Vs
max
- No connection to pad 1 enables oscillator output

Solder Conditions

- For typical soldering conditions, please see the relevant
pages in Applications Notes

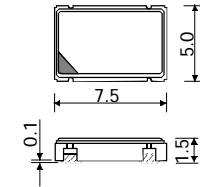
Marking

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

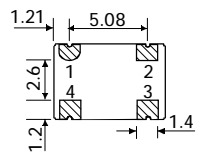
Minimum Order Information Required

- Frequency + Model Number + Operating Temperature
Code (if applicable) + Frequency Stability
- Please refer to our programmable oscillator chapter for
fast make products

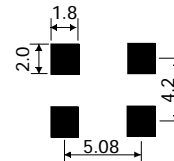
Outline in mm



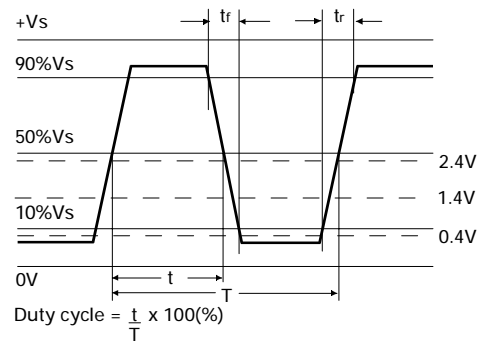
Pad Connections
1. Enable/Disable
2. GND
3. Output
4. +Vs



Solder pad layout



Output Waveform



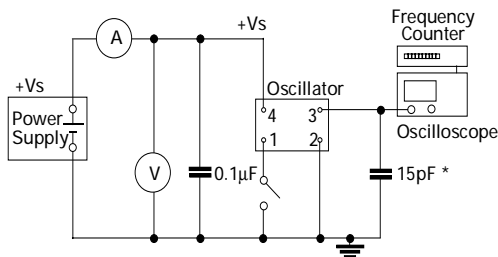
Electrical Specification - maximum limiting values when measured in HCMOS test circuit

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time(tr)	Fall Time (tf)	Duty Cycle	Model Number
1.544 to 25.0MHz	$\pm 25\text{ppm}, \pm 50\text{ppm}, \pm 100\text{ppm}$	5.0V $\pm 0.5\text{V}$	27mA	7ns	7ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	12mA	6ns	6ns	45/55%	IQX0-71, -71I
> 25.0 to 32.0MHz	$\pm 25\text{ppm}, \pm 50\text{ppm}, \pm 100\text{ppm}$	5.0V $\pm 0.5\text{V}$	27mA	7ns	7ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	12mA	6ns	6ns	45/55%	IQX0-71, -71I
> 32.0 to 50.0MHz	$\pm 25\text{ppm}, \pm 50\text{ppm}, \pm 100\text{ppm}$	5.0V $\pm 0.5\text{V}$	45mA	7ns	7ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	16.5mA	6ns	6ns	45/55%	IQX0-71, -71I
> 50.0 to 67.0MHz	$\pm 50\text{ppm}, \pm 100\text{ppm}$	5.0V $\pm 0.5\text{V}$	75mA	7ns	7ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	18mA	6ns	6ns	40/60%	IQX0-71, -71I
> 67.0 to 80.0MHz	$\pm 50\text{ppm}, \pm 100\text{ppm}$	5.0V $\pm 0.5\text{V}$	75mA	7ns	7ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	40mA	6ns	6ns	40/60%	IQX0-71, -71I
> 80.0 to 125.0MHz	$\pm 100\text{ppm}$	3.3V $\pm 0.3\text{V}$	50mA	6ns	6ns	40/60%	IQX0-71, -71I

Ordering Example
 Frequency 24.0MHz
 Model No IQX0-71I
 Operating Temperature Code: I = -40 to 85°C; Not applicable for -10 to 70°C
 Frequency Stability: A = $\pm 25\text{ppm}$ (not available over -40 to 85°C); B = $\pm 50\text{ppm}$; C = $\pm 100\text{ppm}$

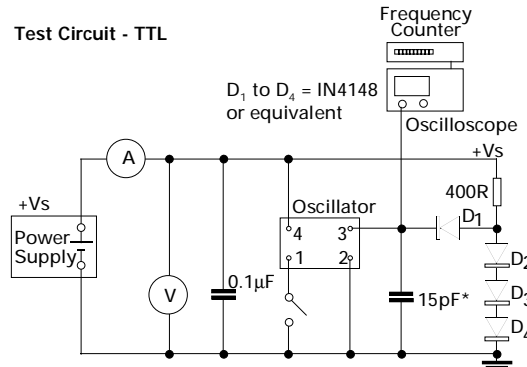
Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practise the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

Test Circuit - HCMOS



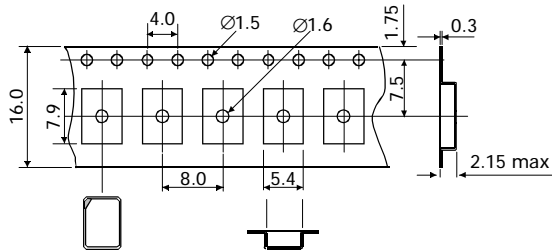
* Inclusive of jiggig & equipment capacitance

Test Circuit - TTL



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

Outline in mm - Tape



Outline in mm - Reel

