

IQXO-70, -71

ISSUE 7; 13 SEPTEMBER 1999

Delivery Options

- Please contact our sales office for current leadtimes

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 Frequency Stabilities

- ± 25 ppm (not available over -40 to 85°C), ± 50 ppm, ± 100 ppm (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

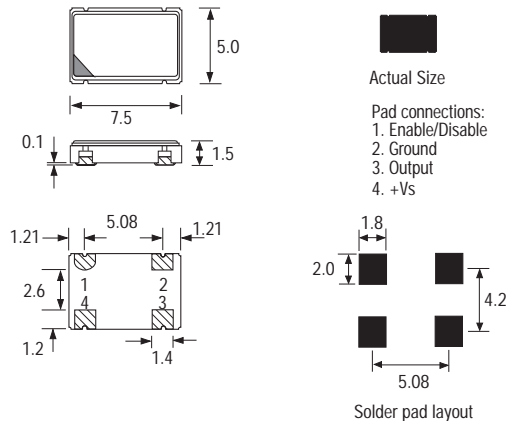
Marking

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

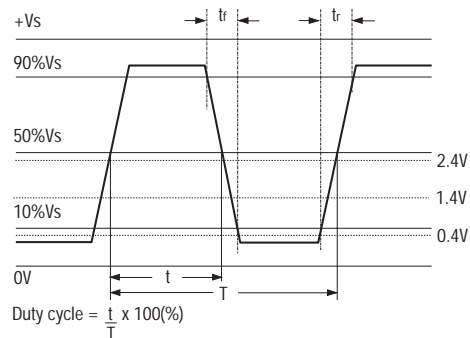
Minimum Order Information Required

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

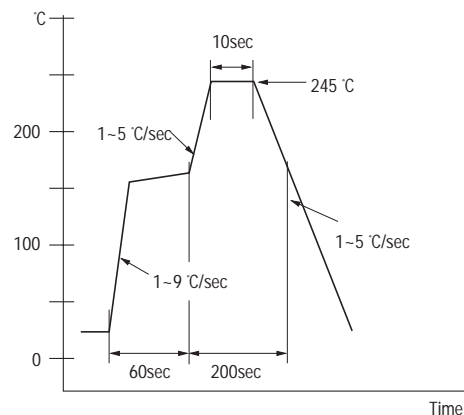
Outline in mm - (scale 2:1)



Output Waveform



Typical Solder Condition - Infrared Reflow



Europe Tel: +44 (0)1460 270200 Fax: +44 (0)1460 72578
Americas Tel: +1 919 474 3500 Fax: +1 919 941 0530

188

Website: www.cmac.com/mt/
Asia Tel: +86 (21) 6488 6663 Fax: +86 (21) 6428 2466

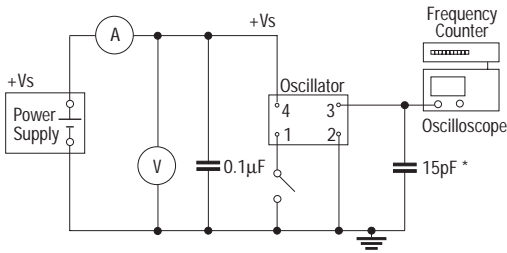
Electrical Specification - maximum limiting values when measured in HCMOS test circuit

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 $\pm 0.5\text{V}$	25mA	5ns	5ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	10mA	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 $\pm 0.5\text{V}$	40mA	5ns	5ns	45/65%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	10mA	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 $\pm 0.5\text{V}$	40mA	5ns	5ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	15mA	6ns	6ns	45/55%	IQX0-71, -71I
> 50.0 to 67.0MHz	$\pm 50\text{ppm}$, $\pm 100\text{ppm}$	5.0V $\pm 0.5\text{V}$	60mA	5ns	5ns	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 $\pm 0.5\text{V}$	73mA	5ns	5ns	45/55%	IQX0-70, -70I
		3.3V $\pm 0.3\text{V}$	30mA	6ns	6ns	40/60%	IQX0-71, -71I
> 80.0 to 125.0MHz	$\pm 100\text{ppm}$	3.3V $\pm 0.3\text{V}$	30mA	6ns	6ns	40/60%	IQX0-71, -71I

Ordering Example
 Frequency 24.0MHz IQX0-71I C
 Model No _____
 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 = $\pm 100\text{ppm}$

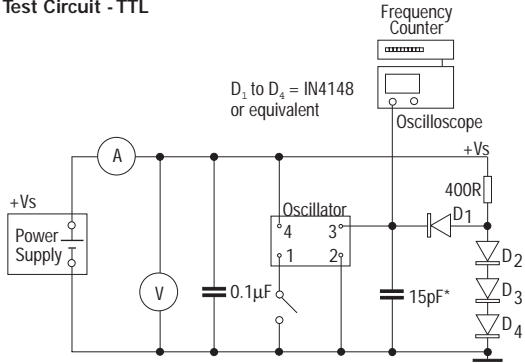
SURFACE MOUNT
SPXOS

Test Circuit - HCMOS



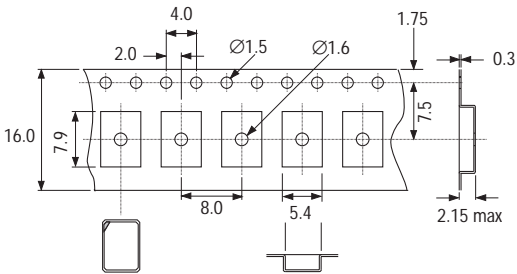
* Inclusive of jigging & equipment capacitance

Test Circuit - TTL

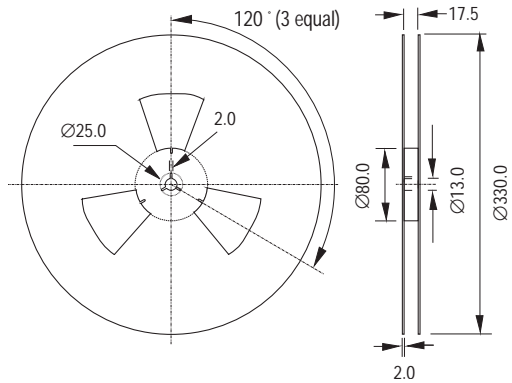


* Inclusive of jigging & equipment capacitance

Outline in mm - Tape



Outline in mm - Reel (scale 1:8)



Europe Tel: +44 (0)1460 270200 Fax: +44 (0)1460 72578
 Americas Tel: +1 919 474 3500 Fax: +1 919 941 0530

Website: www.cmac.com/mt/
 Asia Tel: +86 (21) 6488 6663 Fax: +86 (21) 6428 2466