



ISSUE 10; August 2014 - RoHS 2011/65/EU

Description

- A 5V supply, 8-pin DIL crystal oscillator in a hermetically sealed metal package designed to meet tough environmental specifications
- See our IQXO-36 for product with standby function
- For standard parts in this package please see our IQXO-825
- For parts that meet tough environmental specifications and military temperature range please see our IQXO-85
- For individually screened parts that meet tough environmental specifications and military temperature range please see our IQXO-86

Frequency Parameters

- | | |
|---------------------|-------------------------|
| Frequency | 500.0kHz to 70.0MHz |
| Frequency Tolerance | ±5.00ppm to ±25.00ppm |
| Frequency Stability | ±25.00ppm to ±100.00ppm |
| Ageing | ±5ppm max per year |

Electrical Parameters

- | | |
|----------------|-------------|
| Supply Voltage | 5.0V ±0.25V |
|----------------|-------------|

Operating Temperature Ranges

- 40 to 85°C

Output Details

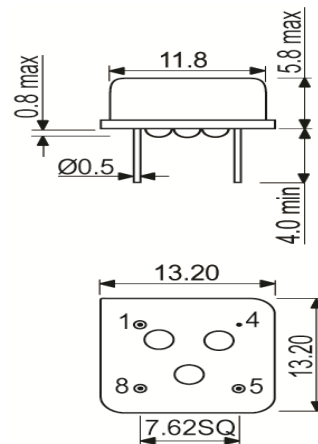
- | | |
|----------------------|-------------------|
| Output Compatibility | HCMOS/TTL |
| Drive Capability | 50pF max or 10TTL |

Environmental Parameters

- Acceleration: 490m/s² for 1min in the 'Y1' plane
- Bump: 4000 bumps at 391m/s² in each of 3 mutually perpendicular planes
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-60Hz, 0.75mm amplitude, 60Hz-2000Hz, 98.1m/s², 30mins in each of 3 mutually perpendicular planes
- Humidity:
 - Steady State: In accordance with Test Ca of IEC 60068-2-3, for 56 days at 40°C at a relative humidity of 93%
 - Cyclic: In accordance with Test Db (variant 1) of IEC 60068-2-30, at severity b, 55°C for 6 cycles
- Solderability: In accordance with Test Ta of IEC 60068
- Rapid Change of Temperature over Operating Temperature Range:
 - 10 cycles
- Hermetic Seal: Not to exceed 1 x 10⁻⁸ mBar litres of Helium leakage
- Storage Temperature Range: -55 to 125°C



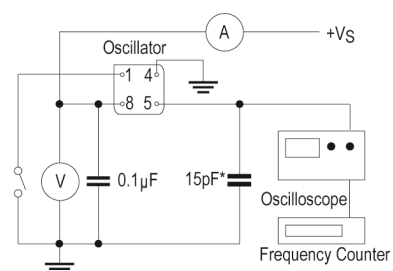
Outline (mm)



Pin Connection

- 1. N/C
- 4. GND
- 5. Output
- 8. +Vs

Test Circuit



*Inclusive of jigging and equipment capacitance

Note: Pin 1 = No connection on non standby option models

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Ordering Information

- Frequency*
- Model*
- Output
- Frequency Tolerance*
- Frequency Stability*
- Operating Temperature Range
- Supply Voltage
- (*minimum required)
- Example
- 20.0MHz IQXO-35
- HCMOS $\pm 10\text{ppm}$ $\pm 50\text{ppm}$ -40 to 85C 5.0V

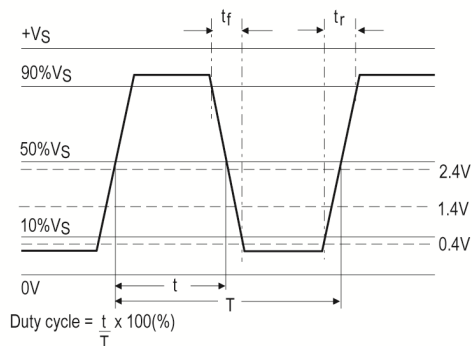
Compliance

- RoHS Status Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Bulk Loose in bulk pack
- Pack Size: 1

Wave Form



Electrical Specification - maximum limiting values 5.0V $\pm 0.25\text{V}$

Frequency Min	Frequency Max	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
		$^{\circ}\text{C}$	ppm	mA	ns	%
500.0kHz	4.999999MHz	-40 to 85	± 25.0	20	15	45/55
5.0MHz	15.999999MHz	-40 to 85	± 25.0	20	10	45/55
16.0MHz	29.999999MHz	-40 to 85	± 25.0	30	10	45/55
30.0MHz	49.999999MHz	-40 to 85	± 25.0	40	8	45/55
50.0MHz	70.0MHz	-40 to 85	± 25.0	50	6	40/60

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