



ISSUE 20; June 2012 - RoHS 2011/65/EU



Description

- Standard 5V supply crystal oscillator in a 14-pin DIL metal package, hermetically sealed
- See IQXO-149 for standard product with Standby Operation
- For product that meets tough environmental specifications please see our IQXO-365
- For product that meets tough environmental specifications and military temperature range please see our IQXO-625
- For individually screened product that meet tough environmental specifications and military temperature range please see our IQXO-626

Frequency Range

- Frequency 0.001 to 160.0 MHz

Supply Voltage

- Voltage 5.0V $\pm 0.25V$

Ageing

- Ageing $\pm 5\text{ppm}$ max per year

Output Compatibility & Load

- Output Compatibility HCMOS/TTL
- Drive Capability 50pF max or 10TTL (100kHz to <70.0MHz) 30pF max (70 to 160kHz) 15pF max (1 to <100kHz)

Frequency Stabilities

- Frequency Stability $\pm 25\text{ppm}$, $\pm 100\text{ppm}$
(inclusive of supply voltage and output load variations over the operating temperature range)

Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

Environmental Parameters

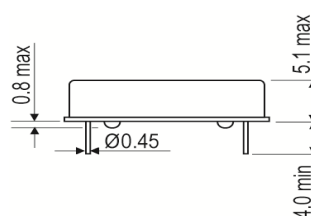
- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 10Hz-55Hz, 0.76mm amplitude, 1min in each of 3 mutually perpendicular planes, duration 2hrs in each plane
- Terminal Strength: 0.91kg max force perpendicular to top and bottom
- Hermetic Seal: Not to exceed 1 x 10⁻⁸ mBar litres of Helium leakage
- Rapid Change of Temperature over Operating Temperature Range: 10 cycles
- Solderability: MIL-STD-202E, Method 208C
- Storage Temperature Range: -55 to 125°C

Ordering Information (*minimum required)

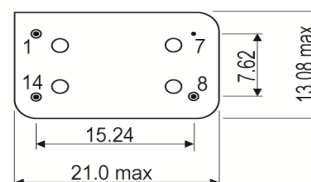
- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- (*minimum requirement)



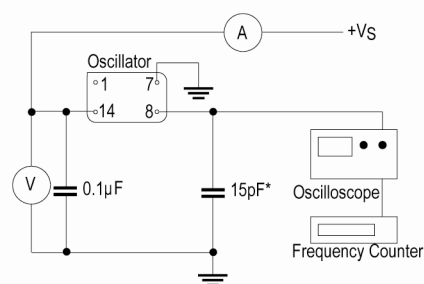
Outline (mm)



Pin Connections
1. N/C
7. GND
8. Output
14. +Vs



Test Circuit



*Inclusive of jigging and equipment capacitance

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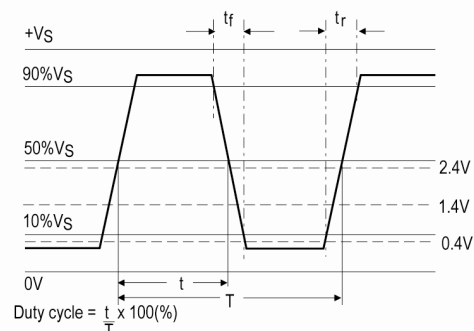
Email: info@iqdfrequencyproducts.com
Web: www.iqdfrequencyproducts.com



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

Packing Details

- Pack Style: **Bulk** Loose in bulk pack
Pack Size 25
- Alternative packing options available

Wave Form**Electrical Specification - maximum limiting values 5.0V ± 0.25 V**

Frequency Range	Temp Range	Stability Inclusive		Current Draw	Rise & Fall (10 to 90%)	Duty Cycle %
		Min	Max			
0.001 to 99.999kHz	0 to 70°C	± 25 ppm	± 100 ppm	10.0mA	10ns	45/55%
	-40 to 85°C	± 25 ppm	± 100 ppm	10.0mA	10ns	45/55%
0.1 to 249.999kHz	0 to 70°C	± 25 ppm	± 100 ppm	10.0mA	15ns	45/55%
	-40 to 85°C	± 25 ppm	± 100 ppm	10.0mA	15ns	45/55%
0.25 to 4.999999MHz	0 to 70°C	± 25 ppm	± 100 ppm	30.0mA	15ns	45/55%
	-40 to 85°C	± 25 ppm	± 100 ppm	30.0mA	15ns	45/55%
5.0 to 15.999999MHz	0 to 70°C	± 25 ppm	± 100 ppm	15.0mA	10ns	45/55%
	-40 to 85°C	± 25 ppm	± 100 ppm	15.0mA	10ns	45/55%
16.0 to 29.999999MHz	0 to 70°C	± 25 ppm	± 100 ppm	30.0mA	10ns	45/55%
	-40 to 85°C	± 25 ppm	± 100 ppm	30.0mA	10ns	45/55%
30.0 to 49.999999MHz	0 to 70°C	± 25 ppm	± 100 ppm	40.0mA	8ns	45/55%
	-40 to 85°C	± 25 ppm	± 100 ppm	40.0mA	8ns	45/55%
50.0 to 69.999999MHz	0 to 70°C	± 25 ppm	± 100 ppm	50.0mA	6ns	40/60%
	-40 to 85°C	± 25 ppm	± 100 ppm	50.0mA	6ns	40/60%
70.0 to 160.0MHz	0 to 70°C	± 25 ppm	± 100 ppm	70.0mA	5ns	40/60%
	-40 to 85°C	± 25 ppm	± 100 ppm	70.0mA	5ns	40/60%

This document was correct at the time of printing; please contact your local sales office for the latest version

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