IQD Frequency Products

Incorporating IQD FOQ GmbH

Oscillator Specification

Model: ***CFPS-302***

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Description

- Crystal oscillator in an 8-pin DIL metal package, hermetically sealed
  Not recommended for new designs
  See CFPS-303 for alternative product with Standby Operation

Frequency Range

■ Frequency	0.5 to 125.0MHz

Supply Voltage

■ Voltage	3.3V ±0.33V

Output Compatibility & Load

■ Output Compatibility	HCMOS
■ Drive Capability	15pF max

Frequency Stabilities

■ Frequency Stability	±25ppm, ±100ppm

Operating Temperature Ranges

- -40 to 85°C
- 0 to 70°C

Environmental Parameters

- Shock: 981m/s², 6ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: 0.76mm displacement, 10Hz-55Hz, 1min in 3 mutually perpendicular planes, duration 2hrs each plane
- Solderability: MIL-STD-202E, Method 208C
- Hermetic Seal: Not to exceed 1x10–8 mBar litres of Helium leakage
- Terminal Strength: 0.91kg max force perpendicular to top and bottom
- Rapid Change of Temperature over Operating Temperature Range: 10 cycles
- Storage Temperature Range: –55 to 125°C

Ordering Information (*minimum required)

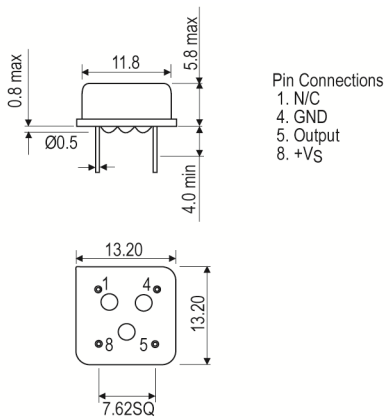
- Frequency*
  Model*
  Output
  Frequency Stability (over operating temperature range)*
  Operating Temperature Range*
  Supply Voltage
  (*minimum required)
- Example
  20.0MHz CFPS-302
  HCMOS ±50ppm 0 to 70C 3.3V

Packing Details

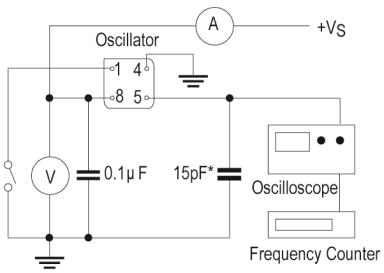
■ Pack Style: **Bulk**	Loose in bulk pack
Pack Size	40

- Alternative packing options available

Outline (mm)



Test Circuit



*Inclusive of jigging and equipment capacitance

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

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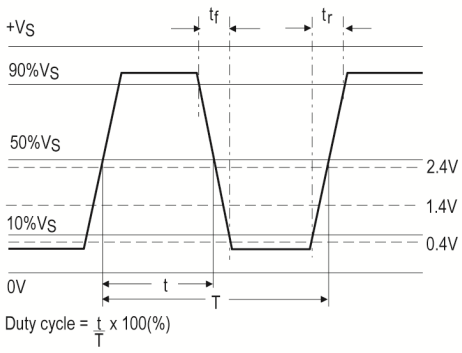
Output Waveform



Electrical Specification - maximum limiting values 3.3V ±0.33V

Frequency Range	Temp Range	Stability		Current Draw	Rise & Fall (10 to 90%)	Duty Cycle %
		Min	Max			
500.00 to <20.0MHz	0 to 70°C	±25ppm	±100ppm	10.0mA	10ns	40/60%
	-40 to 85°C	±25ppm	±100ppm	10.0mA	10ns	40/60%
20.00 to <25.0MHz	0 to 70°C	±25ppm	±100ppm	20.0mA	10ns	40/60%
	-40 to 85°C	±25ppm	±100ppm	20.0mA	10ns	40/60%
25.00 to <40.0MHz	0 to 70°C	±25ppm	±100ppm	20.0mA	6ns	40/60%
	-40 to 85°C	±25ppm	±100ppm	20.0mA	6ns	40/60%
40.00 to <70.0MHz	0 to 70°C	±25ppm	±100ppm	25.0mA	6ns	40/60%
	-40 to 85°C	±25ppm	±100ppm	25.0mA	6ns	40/60%
70.00 to <125.0MHz	0 to 70°C	±25ppm	±100ppm	30.0mA	3ns	40/60%
	-40 to 85°C	±25ppm	±100ppm	30.0mA	3ns	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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