



ISSUE 4; September 2012 - RoHS 2011/65/EU



Description

- Standard 3.2 x 2.5 crystal oscillator
- Ceramic package with a seam sealed metal lid, hermetically sealed
- Fast Make capability: CFPP-39 programmable oscillator is the nearest equivalent fast make model
- MEMS capability: IQMS-520 oscillator is the nearest equivalent MEMS model

Frequency Range

- Frequency 2.0 to 50.0 MHz

Supply Voltage

- Voltage 3.3V $\pm 10\%$

Ageing

- Ageing $\pm 3\text{ppm}$ max per year @ 25°C

Output Compatibility & Load

- Output Compatibility CMOS
- Drive Capability 15pF max

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

- 10 to 70°C
- 40 to 85°C

Output Control

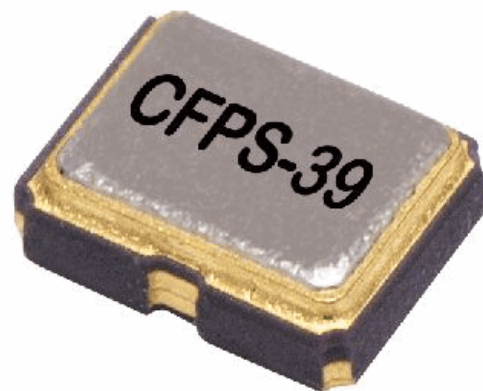
- Standby Operation:
Logic '1' (>70% VS) to pad 1 enables oscillator output
Logic '0' (<30% VS) to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
No connection to pad 1 enables oscillator output
Standby Current: 10 μ A max
Start-Up Time: 10ms max

Environmental Parameters

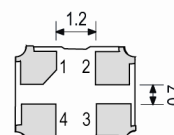
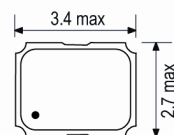
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

Ordering Information (*minimum required)

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- Example
10.0MHz CFPS-39
CMOS $\pm 50\text{ppm}$ -10 to 70C 3.3V



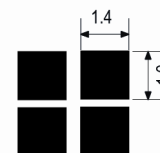
Outline (mm)



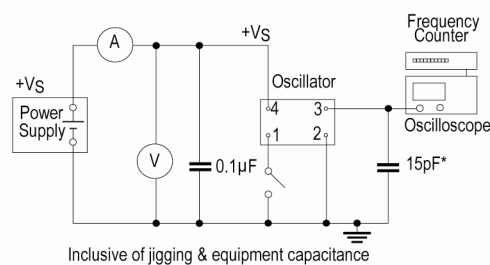
Underside View

Pad Connections
1. Standby Operation
2. GND
3. Output
4. +Vs

Solder Pad Layout



Test Circuit



Sales Office Contact Details:

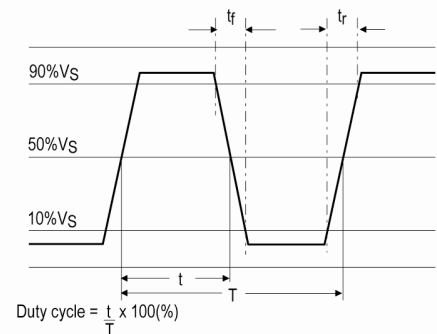
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**Packing Details**

- Pack Style: **Bulk** Loose in bulk pack
Pack Size 100
- Pack Style: **Reel** Tape and reel in accordance with EIA-481-D
Pack Size 1,000
- Alternative packing options available

Wave Form**Electrical Specification - maximum limiting values 3.3V ±10%**

Frequency Range	Temp Range	Stability Inclusive		Current Draw	Rise & Fall (10 to 90%)	Duty Cycle %
		Min	Max			
2.0 to 9.999999MHz	-10 to 70°C	±25ppm	±100ppm	7.0mA	5ns	45/55%
	-40 to 85°C	±25ppm	±100ppm	7.0mA	5ns	45/55%
10.0 to 19.999999MHz	-10 to 70°C	±25ppm	±100ppm	7.0mA	5ns	45/55%
	-40 to 85°C	±25ppm	±100ppm	7.0mA	5ns	45/55%
20.0 to 31.999999MHz	-10 to 70°C	±25ppm	±100ppm	12.0mA	5ns	45/55%
	-40 to 85°C	±25ppm	±100ppm	12.0mA	5ns	45/55%
32.0 to 50.0MHz	-10 to 70°C	±25ppm	±100ppm	20.0mA	5ns	45/55%
	-40 to 85°C	±25ppm	±100ppm	20.0mA	5ns	45/55%

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

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