

ISSUE 2; July 2024

### Description

- Ceramic package with a hermetically seam sealed metal lid suitable for automotive applications. Qualified to AEC-Q200 Rev D and with IATF-16949:2016 release. Not suitable for safety critical applications.

### Frequency Parameters

- Frequency 2.0MHz to 50.0MHz
- Frequency Stability  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max per year @ 25°C

### Electrical Parameters

- Supply Voltage 2.5V  $\pm 5\%$

### Operating Temperature Ranges

- -40 to 85°C
- -40 to 125°C

### Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

### Output Control

- Enable/Disable Operation:  
Logic '1' (>70% Vs) to pad 1 enables oscillator output.  
Logic '0' (<30% Vs) to pad 1 disables oscillator output; the oscillator output goes to the high impedance state.  
No connection to pad 1 enables oscillator output.
- Standby Current:  
-40 to 85°C: 10µA max  
-40 to 125°C: 20µA max

### Environmental Parameters

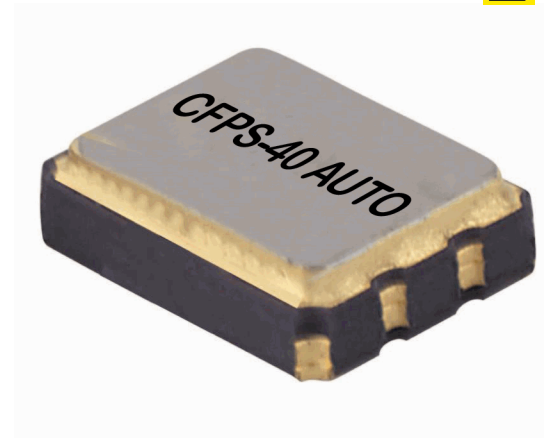
- Storage Temperature Range: -55 to 150°C
- Qualified to AEC-Q200 Rev D

### Manufacturing Details

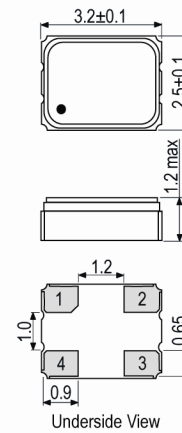
- Maximum Process Temperature: 260°C (10secs max)
- RoHS Terminations NiAu
- RoHS Reflow 260degC 10s

### Ordering Information

- Frequency\*
- Model\*
- Output
- Frequency Stability\*
- Operating Temperature Range\*
- Supply Voltage (\*minimum required)
- Example  
20.0MHz CFPS-40 AUTO  
CMOS  $\pm 100\text{ppm}$  -40 to 125C 2.5V



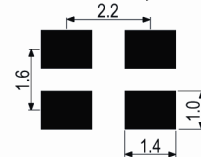
### Outline (mm)



### Pad Connections

1. Enable/Disable
2. GND
3. Output
4. +Vs

### Solder Pad Layout



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### Compliance

- RoHS Status (2015/863/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

### Packaging Details

- Pack Style: RL3K Tape & reel in accordance with EIA-481  
Standard Pack Quantity: 3,000

### Electrical Specification - maximum limiting values 2.5V $\pm$ 5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
2.0MHz	9.999999MHz	-40 to 85	$\pm$ 25.0	6	5	40/60%
		-40 to 125	$\pm$ 50.0	6	5	40/60%
10.0MHz	19.999999MHz	-40 to 85	$\pm$ 25.0	8	5	40/60%
		-40 to 125	$\pm$ 50.0	8	5	40/60%
20.0MHz	31.999999MHz	-40 to 85	$\pm$ 25.0	8	5	40/60%
		-40 to 125	$\pm$ 50.0	8	5	40/60%
32.0MHz	50.0MHz	-40 to 85	$\pm$ 25.0	20	5	40/60%
		-40 to 125	$\pm$ 50.0	20	5	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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