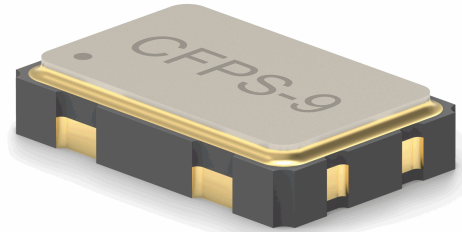


ISSUE 10; January 2025

Description

- Standard 5.0 x 3.2mm crystal oscillator.
Ceramic package with a seam sealed metal lid, hermetically sealed.
Please see our CFPS-12 for a 5.0V version of this package.
Please see our CFPS-37 for a 2.5V version of this package.
Please see our CFPS-69 for a low current version of this package.
Fast Make capability: CFPS-9 programmable oscillator as the nearest equivalent fast make model.
Note: Please note that due to the availability of ceramic bases in the marketplace, you may see slight cosmetic differences in the appearance of this item; however the electrical performance is unaffected.



Frequency Parameters

- Frequency: 500.0kHz to 162.0MHz
- Frequency Stability: $\pm 50.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Supply Voltage: 3.3V $\pm 10\%$
- Note: parameters are referenced to 15pF load.

Operating Temperature Ranges

- 20 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: CMOS
- Drive Capability: 15pF typ, 30pF max
- Start up time: 10ms max

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; when disabled the oscillator output goes to the high impedance state.
No connection to pad 1 enables oscillator output.
Standby Current: 10µA max

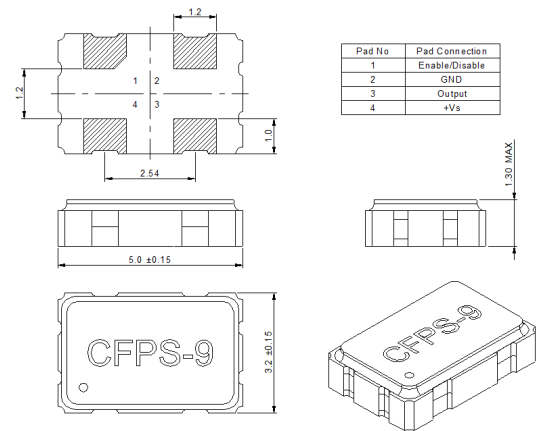
Environmental Parameters

- Storage Temperature Range: -55 to 125°C
- Shock: Half Sine shock pulse with peak acceleration 500g; Pulse duration: 0.3ms.
- Vibration: MIL-STD-202 Method 204. 5g for 20 minutes, 12 cycles in each of the 3 orientations, 10 - 2000 Hz. As per Table 11 of AEC-Q200.

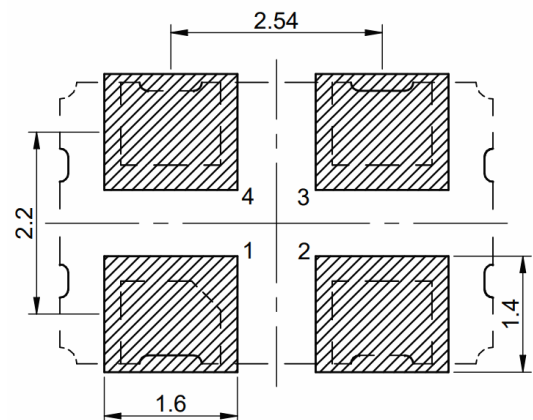
Manufacturing Details

- RoHS Terminations: NiAu
- RoHS Reflow: 260°C 10s max

Outline (mm)



Recommended Solder Pad Layout



Sales Office Contact Details:

UK: +44 (0)1460 270200

Email: info@iqdfrequencyproducts.com

Web: www.iqdfrequencyproducts.com

Ordering Information

- Frequency*
Model
Output
Frequency Stability*
Operating Temperature Range*
Supply Voltage
- Example:
10.0MHz CFPS-9
CMOS $\pm 50\text{ppm}$ -20 to 70C 3.3V

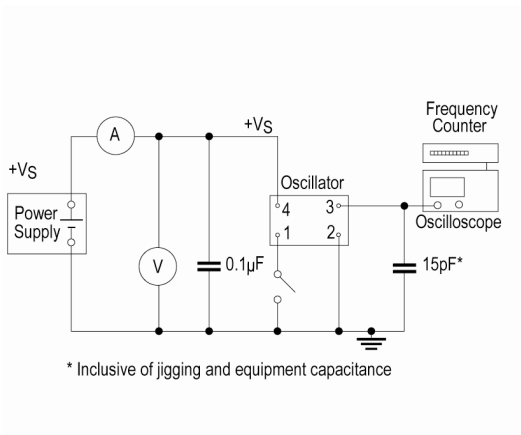
Compliance

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

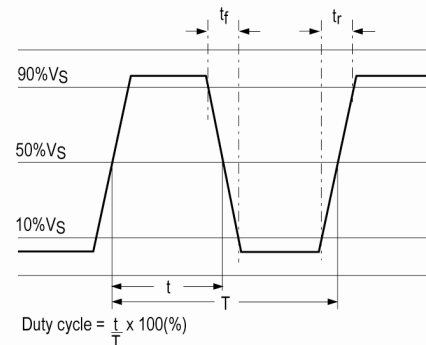
Packaging Details

- Tape & reel in accordance with EIA-481
Quantities below the standard reel size to be supplied on cut tape.
Standard Pack Quantity: 1,000

Test Circuit



Waveform



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Electrical Specification - maximum limiting values 3.3V \pm 10%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		$^{\circ}\text{C}$	ppm	mA	ns	%
500.0kHz	7.999999MHz	-20 to 70	\pm 50.0	7	10	40/60
		-40 to 85	\pm 50.0	7	10	40/60
8.0MHz	15.999999MHz	-20 to 70	\pm 50.0	8	10	40/60
		-40 to 85	\pm 50.0	8	10	40/60
16.0MHz	19.999999MHz	-20 to 70	\pm 50.0	11	10	40/60
		-40 to 85	\pm 50.0	11	10	40/60
20.0MHz	31.999999MHz	-20 to 70	\pm 50.0	12	10	40/60
		-40 to 85	\pm 50.0	12	10	40/60
32.0MHz	39.999999MHz	-20 to 70	\pm 50.0	20	10	40/60
		-40 to 85	\pm 50.0	20	10	40/60
40.0MHz	49.999999MHz	-20 to 70	\pm 50.0	38	10	40/60
		-40 to 85	\pm 50.0	38	10	40/60
50.0MHz	79.999999MHz	-20 to 70	\pm 50.0	38	8	40/60
		-40 to 85	\pm 50.0	38	8	40/60
80.0MHz	162.0MHz	-20 to 70	\pm 50.0	65	5	40/60
		-40 to 85	\pm 50.0	65	5	40/60

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

[Click to view latest version on our website.](#)

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