

ISSUE 16; January 2025

Description

- Standard 7.0 x 5.0mm crystal oscillator in a ceramic package with a seam sealed metal lid, hermetically sealed.
Stock parts are available.
Fast Make Capability: The CFPP-72 series programmable oscillators are the nearest equivalent fast make model.

Frequency Parameters

- Frequency 500.0kHz to 160.0MHz
- Frequency Stability $\pm 50.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing $\pm 5\text{ppm}$ per year max

Electrical Parameters

- Supply Voltage 5.0V $\pm 10\%$
- 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, 1.1ms typ to 90% of final amplitude (under ideal conditions @25°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; the oscillator output goes to the high impedance state.
No connection to pad 1 enables oscillator output.
Standby Current: 10µA max, 2.3µA typ @25°C.

Environmental Parameters

- 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.
- Storage Temperature Range: -55 to 125°C

Manufacturing Details

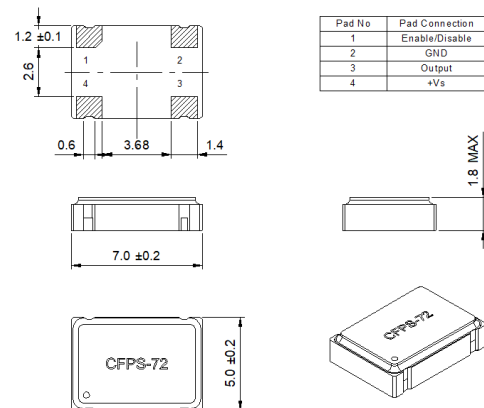
- RoHS Terminations NiAu
- RoHS Reflow 260°C 10s max

Ordering Information

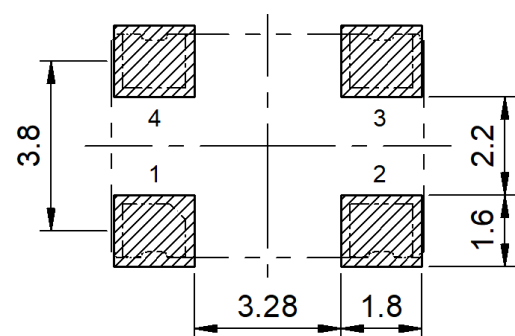
- Frequency*
Model
Output
Frequency Stability*
Operating Temperature Range*
Supply Voltage
(*minimum required)
- Example:
10.0MHz CFPS-72
CMOS $\pm 50\text{ppm}$ -20 to 70C 3.3V



Outline (mm)



Recommended Solder Pad Layout



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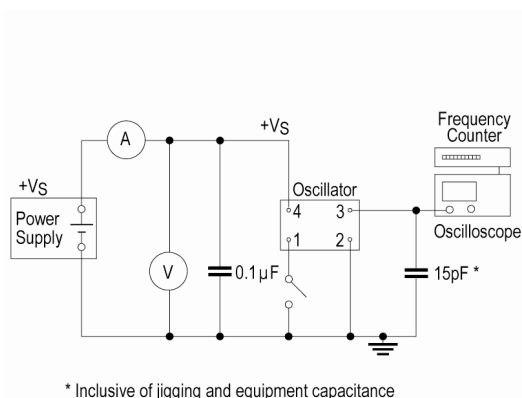
Compliance

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

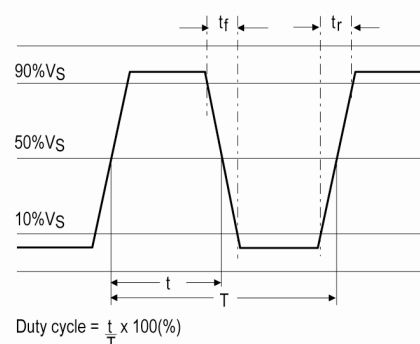
Packaging Details

- 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



Electrical Specification - maximum limiting values @ 15pF and 5.0V ±10%

Frequency Min	Frequency Max	Temperature Range	Stability Min	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
500.0kHz	16.999999MHz	-20 to 70	±50.0	23	10	40/60
		-40 to 85	±50.0	23	10	40/60
17.0MHz	31.999999MHz	-20 to 70	±50.0	35	10	40/60
		-40 to 85	±50.0	35	10	40/60
32.0MHz	49.999999MHz	-20 to 70	±50.0	35	6	40/60
		-40 to 85	±50.0	35	6	40/60
50.0MHz	79.999999MHz	-20 to 70	±50.0	50	5	40/60
		-40 to 85	±50.0	50	5	40/60
80.0MHz	80.999999MHz	-20 to 70	±50.0	60	5	40/60
		-40 to 85	±50.0	60	5	40/60
81.0MHz	160.0MHz	-20 to 70	±50.0	80	5	40/60
		-40 to 85	±50.0	80	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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