

CFPS-72, -73 Semtech Reference - Stratum 4

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Delivery Options

- Common frequencies are available from stock. Please see stock list or contact sales office

Output Compatibility

- Tri-state HCMOS/TTL (5.0V) (CFPS-72), Load 15pF max
- Tri-state HCMOS (3.3V) (CFPS-73), Load 15pF max

Package Outline

- 7.0 x 5.0mm SMD Ceramic Package.
Available over 0 to 70°C (CFPS-72, -73) or
-40 to 85°C (CFPS-72I, -73I)

Standard Frequency Stabilities

- ±20ppm, ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage & output load variations over the operating temperature range)

Operating Temperature Range

- 0 to 70°C (CFPS-72, -73)
- 40 to 85°C (CFPS-72I, -73I)

Storage Temperature Range

- 55 to 125°C

Tri-state Operation

- Logic '1' to pad 1 enables oscillator output, 2.2V min
- Logic '0' to pad 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state, 0.8V max
- No connection to pad 1 enables oscillator output

Solder Conditions

- For typical soldering conditions, please see the relevant pages in Applications Notes

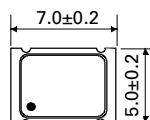
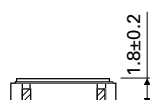
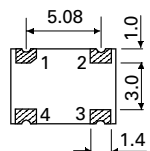
Marking

- Model Number (+ Operating Temperature Code; if applicable)
- Frequency Stability Code
- Frequency

Minimum Order Information Required

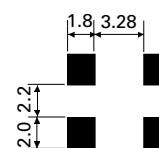
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability
- Please refer to our programmable oscillator chapter for fast make products

Outline in mm



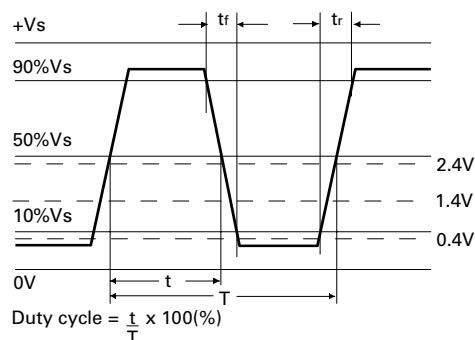
Pad Connections

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



Solder pad layout

Output Waveform



Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time(tr)	Fall Time (tf)	Duty Cycle	Model Number
1.25 to 35.0MHz	±20ppm, ±25ppm, ±50ppm, ±100ppm	3.3V	15mA	6ns	6ns	40/60%	CFPS-73, CFPS-73I
>35.0 to 70.0MHz			30mA	6ns	6ns		
>70.0 to 106.25MHz			40mA	6ns	6ns		
>106.25 to 120.0MHz			40mA	6ns	6ns		
>120.0 to 125.0MHz			40mA	6ns	6ns		
>125.0 to 160MHz			40mA	6ns	6ns		
1.25 to 20.0MHz	±25ppm, ±50ppm ±100ppm	5.0V	20mA	6ns	6ns		CFPS-72, CFPS-72I
>20.0 to 35.0MHz			30mA	6ns	6ns		
>35.0 to 70.0MHz			50mA	6ns	6ns		
>70.0 TO 100.0MHz			70mA	6ns	6ns		
>100.0 to 125.0MHz			70mA	6ns	6ns		
>125.0 to 160.0MHz			70mA	6ns	6ns		

Ordering Example

Frequency _____ 24.0MHz

Model No _____ CFPS-73I

Operating Temperature Code: I = -40 to 85°C; Not applicable for 0 to 70°C _____ C

Frequency Stability: A = ±25ppm; B = ±50ppm; C = ±100ppm; G = ±20ppm _____

* Inclusive of jigging & equipment capacitance

Test Circuit - TTL

D_1 to D_4 = IN4148 or equivalent

Frequency Counter

Oscilloscope

+Vs

Power Supply

A

V

0.1 μ F

Oscillator

15 pF*

400R

D1

D2

D3

D4

+Vs

*Inclusive of jigging & equipment capacitance
Note: CFPS-72, 721 only

Technical drawing of a rectangular plate with the following dimensions and specifications:

- Overall width: 16.0
- Overall height: 7.9
- Top edge features:
 - Two horizontal slots, each 2.0 wide and 4.0 deep.
 - Two circular holes, each with a diameter of $\varnothing 1.5$.
- Bottom edge features:
 - Two horizontal slots, each 8.0 wide and 5.4 deep.
 - Two circular holes, each with a diameter of $\varnothing 1.6$.
- Right edge features:
 - A vertical slot, 1.75 wide and 0.3 deep.
 - A horizontal slot, 2.15 max wide.

Technical drawing of a fan wheel showing front and side views.

Front View (Left):

- Circle with diameter $\varnothing 25.0$ (central hub).
- Three blades, each with a width of 2.0.
- Blade angle: 120° (3 equal).

Side View (Right):

- Overall diameter: $\varnothing 330.0$.
- Hub thickness: 17.5.
- Blade thickness: 2.0.
- Blade height: 13.0.
- Overall height: 80.0.