

ISSUE 7; December 2017

Description

- Standard 5 x 3.2 crystal oscillator. Ceramic package with a seam sealed metal lid, hermetically sealed. Please see our CFPS-9 for a 3.3V version of this package. Please see our CFPS-37 for a 2.5V version of this package. Fast Make capability: CFPP-12 programmable oscillator as the nearest equivalent fast make model.



Frequency Parameters

- Frequency: 500.0kHz to 100.0MHz
- Frequency Stability: $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 3\text{ppm}$ max per year @ 25°C

Electrical Parameters

- Supply Voltage: 5.0V $\pm 0.5\text{V}$

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: CMOS
- Drive Capability: 15pF 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: 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)

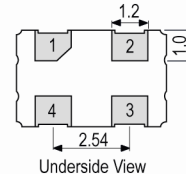
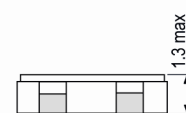
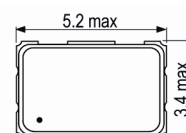
Manufacturing Details

- RoHS Terminations: NiAu
- RoHS Reflow: 260degC 10s

Ordering Information

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- Example:
10.0MHz CFPS-12
CMOS $\pm 50\text{ppm}$ -10 to 70C 5.0V

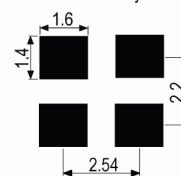
Outline (mm)



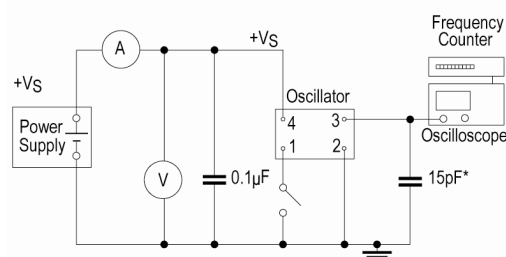
Pad Connections

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

Solder Pad Layout



Test Circuit



* Inclusive of jigging and equipment capacitance

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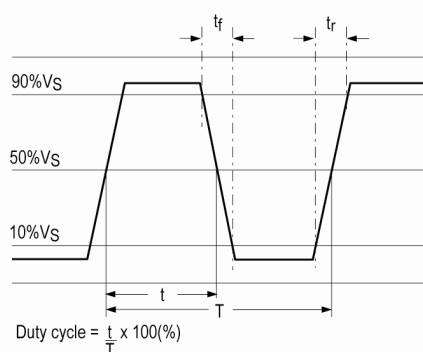
Compliance

- RoHS Status (2011/65/EU) Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Cutt In tape, cut from a reel
Pack Size: 100

Wave Form



Electrical Specification - maximum limiting values 5.0V ±0.5V

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
500.0kHz	9.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	10 10	40/60%
10.0MHz	19.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	10 10	40/60%
20.0MHz	31.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	10 10	40/60%
32.0MHz	49.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	45 45	6 6	40/60%
50.0MHz	79.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	50 50	5 5	40/60%
80.0MHz	100.0MHz	-10 to 70 -40 to 85	±25.0 ±25.0	60 60	5 5	40/60%

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