

ISSUE 4; May 2021

### Description

- Standard 5 x 3.2mm crystal oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed  
Please see our CFPS-37, CFPS-9 or CFPS-12 for a 2.5V, 3.3V or 5.0V versions of this package

### Frequency Parameters

- Frequency 500.0kHz to 156.0MHz
- Frequency Stability  $\pm 20.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 3\text{ppm}$  max per year

### Electrical Parameters

- Supply Voltage 1.8V  $\pm 5\%$

### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

### Output Details

- Output Compatibility CMOS
- Drive Capability 15pF

### Output Control

- Standby Operation:  
Logic '1' (>70% VS) to pad 1 enables oscillator output  
Logic '0' (<30% VS) to pad 1 disables oscillator output and oscillator output goes to the high impedance state  
No connection to pad 1 enables oscillator output  
Standby Current: 10µA max

### Environmental Parameters

- Shock: MIL-STD-883F, 2002.4: 1500G, 0.5ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: MIL-STD-883F, 2007.3: 20G (20Hz-2000Hz), 1.52mm amplitude, 20mins in 3 mutually perpendicular planes (total 4hrs)
- Storage Temperature Range: -55 to 125°C

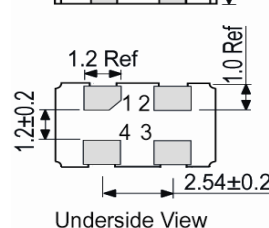
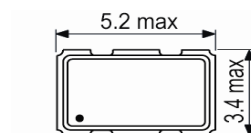
### Manufacturing Details


- RoHS Terminations NiAu
- RoHS Reflow 260degC 10s

### Ordering Information

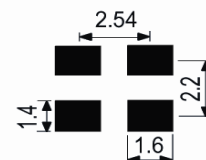
- Frequency\*
- Model\*
- Output
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage  
(\*minimum required)
- Example  
10.0MHz CFPS-36  
CMOS  $\pm 50\text{ppm}$  -10 to 70C 1.8V

### Outline (mm)



- 
- Pad Connections
- Standby Operation
  - GND
  - Output
  - +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: Cutt            In tape, cut from a reel  
Pack Size: 100
- Pack Style: Reel            Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

### Electrical Specification - maximum limiting values 1.8V ±5%

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	±20.0	5	5	40/60%
		-40 to 85	±50.0	5	5	40/60%
10.0MHz	31.999999MHz	-10 to 70	±20.0	6	5	40/60%
		-40 to 85	±25.0	6	5	40/60%
32.0MHz	49.999999MHz	-10 to 70	±20.0	15	5	40/60%
		-40 to 85	±25.0	15	5	40/60%
50.0MHz	79.999999MHz	-10 to 70	±20.0	15	4	40/60%
		-40 to 85	±25.0	15	4	40/60%
80.0MHz	99.999999MHz	-10 to 70	±20.0	20	3	40/60%
		-40 to 85	±25.0	20	3	40/60%
100.0MHz	156.0MHz	-10 to 70	±20.0	25	3	40/60%
		-40 to 85	±25.0	25	3	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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