

ISSUE 5; May 2017

### Description

- Standard 3.2 x 2.5mm crystal oscillator  
Ceramic package with a seam sealed metal lid, hermetically sealed  
Fast Make capability: CFPP-41 programmable oscillator is the nearest equivalent fast make model

### Frequency Parameters

- Frequency: 2.0MHz to 50.0MHz
- 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: 1.8V  $\pm 5\%$

### Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

### Output Details

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

### Output Control

- Standby 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  
Start-Up Time: 10ms max

### Environmental Parameters

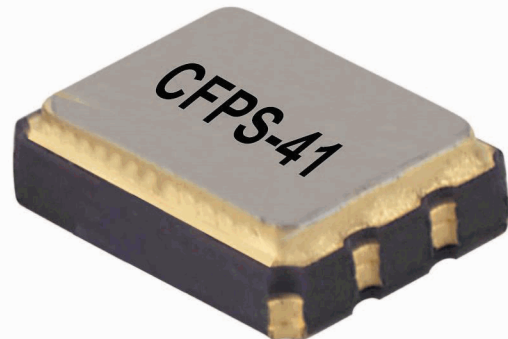
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-202F, Method 213B: 1000G, 0.5ms, 1/2 sine wave
- Vibration: MIL-STD-202F, Method 204D, Test Condition D: 20G (10Hz-2000Hz), 4hrs in 3 mutually perpendicular planes (total 12hrs)

### Manufacturing Details

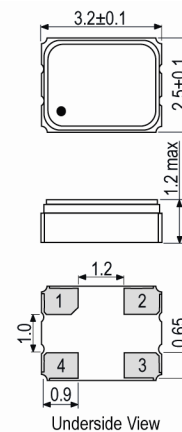
- Maximum Process Temperature: 260°C (10secs max)

### Ordering Information

- Frequency\*  
Model\*  
Output  
Frequency Stability\*  
Operating Temperature Range\*  
Supply Voltage
- Example  
10.0MHz CFPS-41  
CMOS  $\pm 50\text{ppm}$  -10 to 70C 1.8V



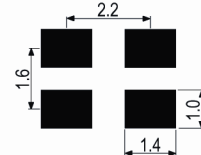
### Outline (mm)



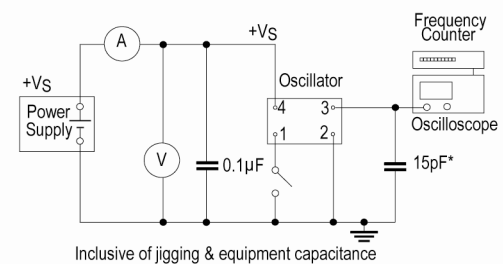
### Pad Connections

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

### Solder Pad Layout



### Test Circuit



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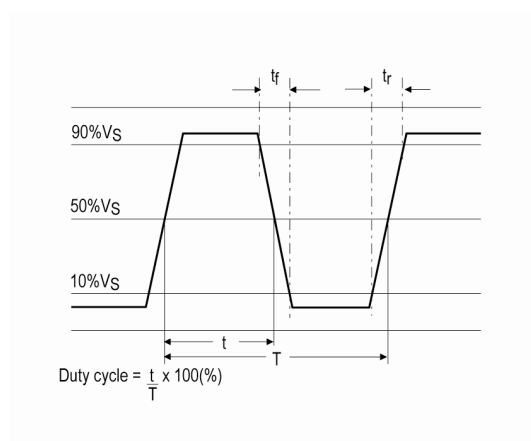
### Compliance

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

### Packaging Details

- Pack Style: 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

### Wave Form



### 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	%
2.0MHz	9.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	5 5	7 7	40/60% 40/60%
10.0MHz	19.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	6 6	7 7	40/60% 40/60%
20.0MHz	31.999999MHz	-10 to 70 -40 to 85	±25.0 ±25.0	6 6	6 6	40/60% 40/60%
32.0MHz	50.0MHz	-10 to 70 -40 to 85	±25.0 ±25.0	15 15	6 6	40/60% 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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