

ISSUE 3; October 2015

### Description

- 32.768kHz output crystal oscillator in a ceramic package, hermetically sealed with a seam sealed metal lid  
Suitable for real time clock applications



### Frequency Parameters

- Frequency: 32.768kHz
- Frequency Stability:  $\pm 20.00\text{ppm}$  to  $\pm 50.00\text{ppm}$
- Ageing:  $\pm 3\text{ppm}$  max per year

### Electrical Parameters

- Supply Voltage: 3.3V  $\pm 5\%$

### Operating Temperature Ranges

- 20 to 70°C
- 10 to 70°C
- 40 to 85°C

### Output Details

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

### Output Control

- 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

### Environmental Parameters

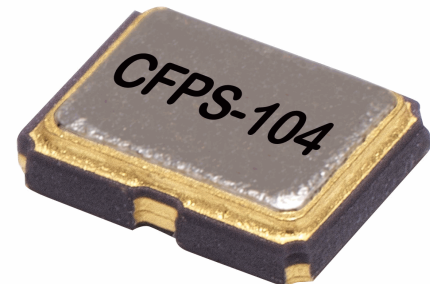
- Storage Temperature Range: -55 to 125°C
- Shock: MIL-STD-883F, Method 2002.4: 1500G, 0.5ms, 3 times in each of 3 mutually perpendicular planes
- Vibration: MIL-STD-883F, Method 2007.3: 20G (20Hz-2000Hz), 1.52mm amplitude, 20mins in 3 mutually perpendicular planes (total 4hrs)

### Ordering Information

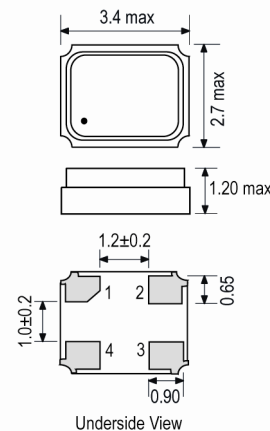
- Frequency\*
- Model\*
- Output
- Frequency Stability\*
- Operating Temperature Range\*
- Supply Voltage  
(\*minimum required)
- Example  
32.768kHz CFPS-104  
CMOS  $\pm 50\text{ppm}$  -10 to 70C 3.3V

### Compliance

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

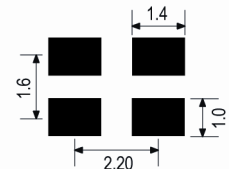


### Outline (mm)

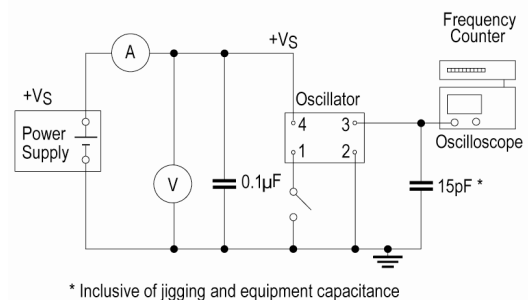


- Pad Connections
- Tri-State Operation
  - GND
  - Output
  - +VS

### Solder Pad Layout



### Test Circuit



### Sales Office Contact Details:

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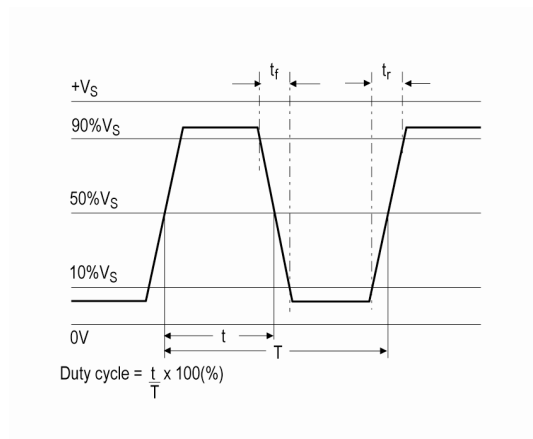
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### Packaging Details

- Pack Style: Cutt      In tape, cut from a reel  
Pack Size: 1
- Pack Style: Bulk      Loose in bulk pack  
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 3.30V ±5%

Frequency Min	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
	°C	ppm	mA	ns	%
32.768000kHz	-40 to 85	±25.00	3.5	50	40/60
	-20 to 70	±20.00	3.5	50	40/60
	-10 to 70	±20.00	3.5	50	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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