

ISSUE 11; June 2015

### Description

- PLL based, one time only factory programmable for a fast lead time
- Crystal oscillator in a hermetically sealed ceramic package with a metal lid
- See CFPS-72 for standard crystal oscillator alternative

### Frequency Parameters

- Frequency 1.0MHz to 150.0MHz
- Frequency Stability  $\pm 25.00\text{ppm}$  to  $\pm 100.00\text{ppm}$
- Ageing  $\pm 5\text{ppm}$  max in 1st year @ 25°C

### Electrical Parameters

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

### Operating Temperature Ranges

- 0 to 70°C
- -40 to 85°C

### Output Details

- Output Compatibility CMOS
- Logic '1' to pad 1 enables oscillator output
- Logic '0' 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

| Drive Capability    |          |
|---------------------|----------|
| 0.0MHz to 66.0MHz   | 50pF max |
| 66.0MHz to 150.0MHz | 25pF max |

### Noise Parameters

- Jitter pk-pk:
  - 1 to 33MHz 250ps max
  - >33MHz 175ps max
- Jitter pk-pk:
  - 1 to 33MHz 100ps typ
  - >33MHz 75ps typ

### Environmental Parameters

- Storage Temperature Range: -55 to 125°C

### Ordering Information

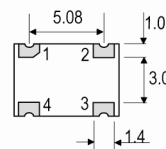
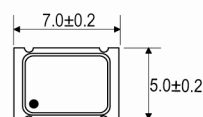
- Frequency\*
- Model\*
- Output Compatibility
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- Example
- 20.0MHz CFPP-72
- CMOS  $\pm 50\text{ppm}$  -40 to 85C 5.0V

### Compliance

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



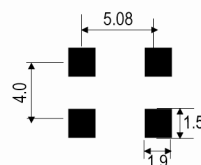
### Outline (mm)



Underside View

Pad Connections  
 1. N/C or Tri-State  
 2. GND  
 3. Output  
 4. +VS

### Solder Pad Layout



### Sales Office Contact Details:

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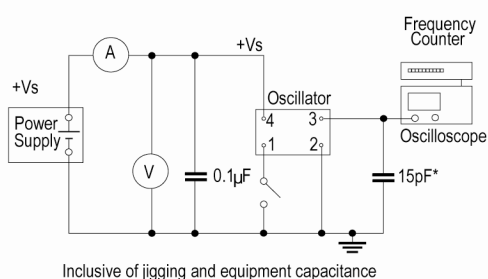
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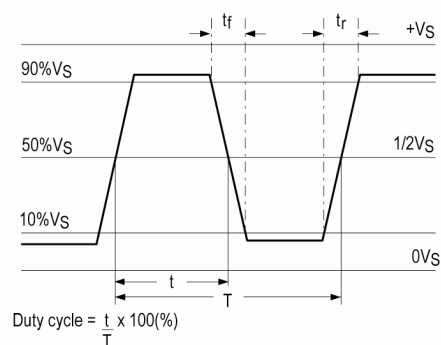
### Packaging Details

- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 1
- Pack Style: Cutt      In tape, cut from a reel  
Pack Size: 1
- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000
- Pack Style: R500  
Pack Size: 500

### Test Circuit



### Wave Form



### Electrical Specification - maximum limiting values 5.0V $\pm 0.5V$

| Frequency Min | Frequency Max | Temperature Range    | Stability (Min)          | Current Draw | Rise and Fall Time | Duty Cycle     |
|---------------|---------------|----------------------|--------------------------|--------------|--------------------|----------------|
|               |               | °C                   | ppm                      | mA           | ns                 | %              |
| 1.0MHz        | 40.0MHz       | 0 to 70<br>-40 to 85 | $\pm 25.0$<br>$\pm 25.0$ | 45<br>45     | 4<br>4             | 45/55<br>45/55 |
| 40.000001MHz  | 66.0MHz       | 0 to 70<br>-40 to 85 | $\pm 25.0$<br>$\pm 25.0$ | 45<br>45     | 4<br>4             | 45/55<br>45/55 |
| 66.000001MHz  | 100.0MHz      | 0 to 70<br>-40 to 85 | $\pm 25.0$<br>$\pm 25.0$ | 45<br>45     | 4<br>4             | 40/60<br>40/60 |
| 100.000001MHz | 133.0MHz      | 0 to 70<br>-40 to 85 | $\pm 25.0$<br>$\pm 25.0$ | 45<br>45     | 4<br>4             | 40/60<br>40/60 |
| 133.000001MHz | 150.0MHz      | 0 to 70<br>-40 to 85 | $\pm 25.0$<br>$\pm 25.0$ | 60<br>60     | 4<br>4             | 40/60<br>40/60 |

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