

ISSUE 10; September 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-40 for our standard crystal oscillator alternative

### Frequency Parameters

- Frequency: 1.0MHz to 90.0MHz
- Frequency Stability:  $\pm 20.00\text{ppm}$  to  $\pm 100.00\text{ppm}$

### Electrical Parameters

- Supply Voltage:  $2.5\text{V} \pm 10\%$
- Standby Current:  $10\mu\text{A}$  max
- Start Up Time: 8ms max

### Operating Temperature Ranges

- 10 to 60°C
- 20 to 70°C
- 40 to 85°C

### Output Details

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

### Output Control

- Logic '1' ( $>70\%V_s$ ) to pad 1 enables oscillator output
- Logic '0' ( $<30\%V_s$ ) 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

### Noise Parameters

- Period Jitter: 150ps max

### Environmental Parameters

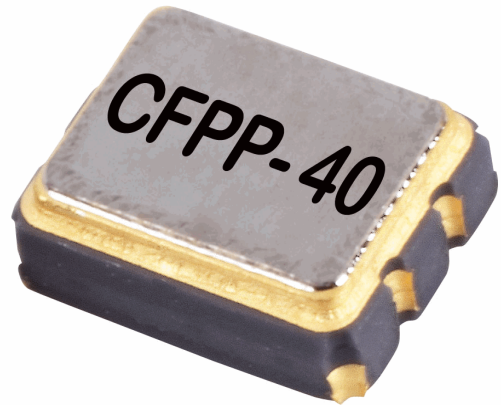
- Storage Temperature Range:  $-55$  to  $125^\circ\text{C}$

### Ordering Information

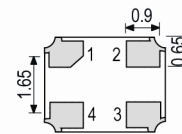
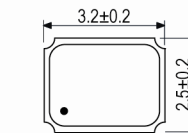
- Frequency\*
- Model\*
- Output Compatibility
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- (\*minimum required)
- Example
- 20.0MHz CFPP-40
- CMOS  $\pm 50\text{ppm}$   $-40$  to  $85^\circ\text{C}$  2.5V

### Compliance

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



### Outline (mm)

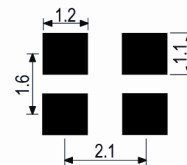


Underside View

### Pad Connections

- Standby
- GND
- Output
- +Vs

### Solder Pad Layout



### Sales Office Contact Details:

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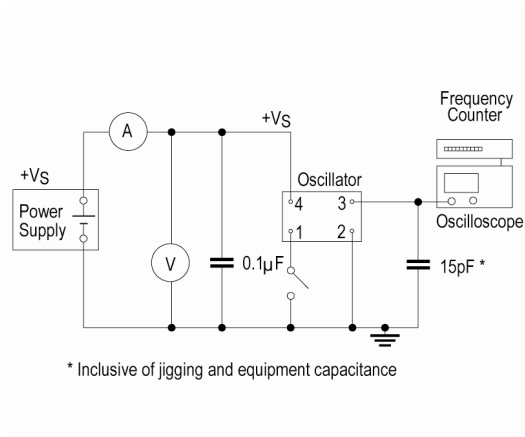
Email: [info@iqdfrequencyproducts.com](mailto:info@iqdfrequencyproducts.com)

Web: [www.iqdfrequencyproducts.com](http://www.iqdfrequencyproducts.com)

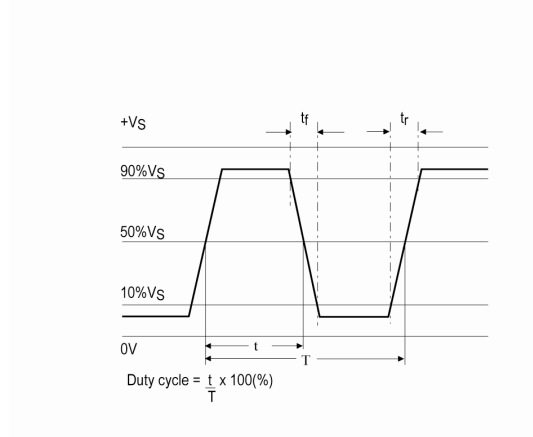
### Packaging Details

- 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: Bulk      Loose in bulk pack  
Pack Size: 1

### Test Circuit



### Wave Form



### Electrical Specification - maximum limiting values 2.5V ±10%

| Frequency Min | Frequency Max | Temperature Range | Stability (Min) | Current Draw | Rise and Fall Time | Duty Cycle |
|---------------|---------------|-------------------|-----------------|--------------|--------------------|------------|
|               |               | °C                | ppm             | mA           | ns                 | %          |
| 1.0MHz        | 19.999999MHz  | -10 to 60         | ±20.0           | 8            | 5                  | 45/55      |
|               |               | -20 to 70         | ±25.0           | 8            | 5                  | 45/55      |
|               |               | -40 to 85         | ±50.0           | 8            | 5                  | 45/55      |
| 20.0MHz       | 39.999999MHz  | -10 to 60         | ±20.0           | 10           | 5                  | 45/55      |
|               |               | -20 to 70         | ±25.0           | 10           | 5                  | 45/55      |
|               |               | -40 to 85         | ±50.0           | 10           | 5                  | 45/55      |
| 40.0MHz       | 74.999999MHz  | -10 to 60         | ±20.0           | 10           | 5                  | 45/55      |
|               |               | -20 to 70         | ±25.0           | 10           | 5                  | 45/55      |
|               |               | -40 to 85         | ±50.0           | 10           | 5                  | 45/55      |
| 75.0MHz       | 90.0MHz       | -10 to 60         | ±20.0           | 15           | 5                  | 45/55      |
|               |               | -20 to 70         | ±25.0           | 15           | 5                  | 45/55      |
|               |               | -40 to 85         | ±50.0           | 15           | 5                  | 45/55      |

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