

ISSUE 10; April 2016

### 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.
- This model is not approved for on-board avionics applications; in such instances our 'CFPP-9 AVIATION' version should be specified.
- See CFPS-9 for our standard crystal oscillator alternative.



### Frequency Parameters

- Frequency: 1.0MHz to 133.0MHz
- 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: 3.3V  $\pm 0.3\text{V}$

### 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 40.0MHz	30pF
40.0MHz to 133.0MHz	15pF

### Noise Parameters

- Jitter pk-pk (typical)
  - 1 to 33MHz >33MHz
  - 100ps 75ps
- Jitter pk-pk (max)
  - 1 to 33MHz >33MHz
  - 250ps 175ps

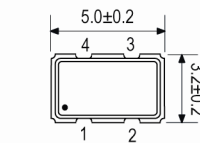
### Environmental Parameters

- Storage Temperature Range: -55 to 125°C

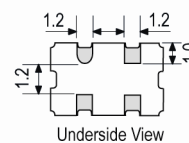
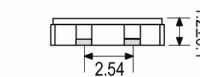
### Ordering Information

- Frequency\*
- Model\*
- Output Compatibility
- Frequency Stability (over operating temperature range)\*
- Operating Temperature Range\*
- Supply Voltage
- Example
  - 20.00MHz CFPP-9
  - CMOS  $\pm 50\text{ppm}$  -40 to 85C 3.3V

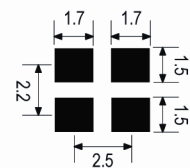
### Outline (mm)



- 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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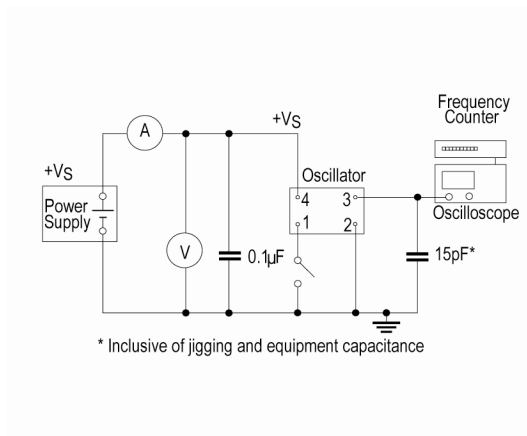
### Compliance

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

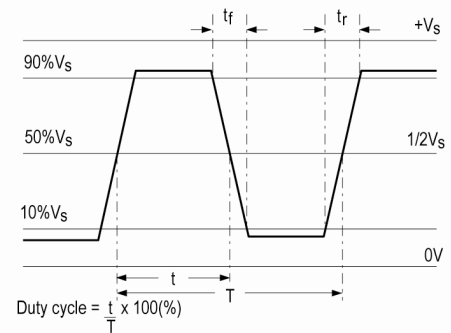
### Packaging Details

- Pack Style: Bulk      Loose in bulk pack  
Pack Size: 1
- Pack Style: Reel      Tape & reel in accordance with EIA-481-D  
Pack Size: 1,000

### Test Circuit



### Wave Form



### Electrical Specification - maximum limiting values 3.3V ±0.3V

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	±25.0	25	4	45/55%
		-40 to 85	±25.0	25	4	45/55%
40.000001MHz	66.0MHz	0 to 70	±25.0	25	4	40/60%
		-40 to 85	±25.0	25	4	40/60%
66.000001MHz	100.0MHz	0 to 70	±25.0	25	4	40/60%
		-40 to 85	±25.0	25	4	40/60%
100.000001MHz	133.0MHz	0 to 70	±25.0	45	4	40/60%
		-40 to 85	±25.0	45	4	40/60%

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