

CFPP-39, -40, -41 PROGRAMMABLE OSCILLATORS

ISSUE 8; 1 NOVEMBER 2008 - RoHS 2002/95/EC

Description

- One time Factory programmable PLL crystal oscillator in a surface mount ceramic package

Package Outline

- 3.2 x 2.5mm

Frequency Range

- 0.8 to 110MHz CFPP-39
- 0.8 to 90MHz CFPP-40
- 0.8 to 75MHz CFPP-41

Output Compatibility & Load

- Tri-state CMOS
- Drive Capability 15pF max

Frequency Stabilities

- $\pm 20\text{ppm}$, $\pm 25\text{ppm}$, $\pm 50\text{ppm}$, $\pm 100\text{ppm}$ (inclusive of tolerance, supply voltage & output load variations over the operating temperature range)

Operating Temperature Ranges

- 10 to 60°C CFPP-39, 40, 41
- 20 to 70°C CFPP-39S, 40S, 41S
- 40 to 85°C CFPP-39I, 40I, 41I

Storage Temperature Range

- 55 to 125°C

Tri-state Operation

- 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
- Standby current 10 μ A max

Supply Voltage

- 3.3V CFPP-39
- 2.5V CFPP-40
- 1.8V CFPP-41

Period Jitter

- 150ps max

Start Up Time

- 8ms max

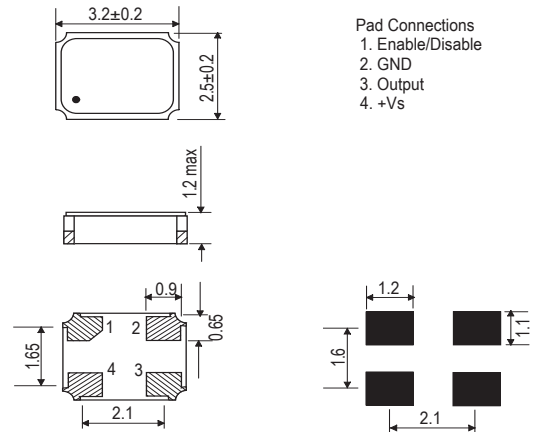
Packaging

- Bulk or Tape & Reel

Minimum Order Information Required

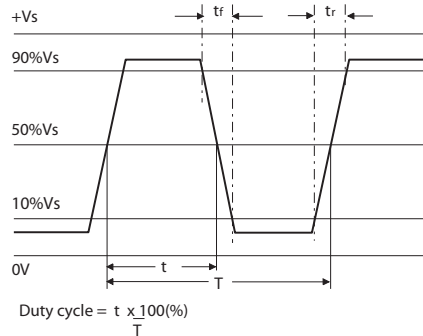
- Frequency + Model Number + Operating Temperature Code (if applicable) + Frequency Stability

Outline (mm)

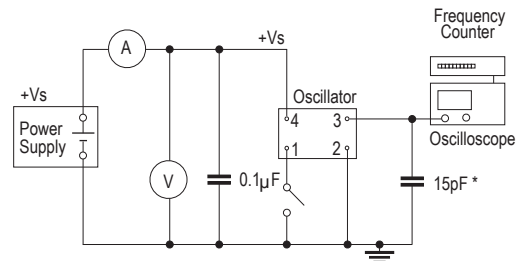


- Pad Connections
1. Enable/Disable
 2. GND
 3. Output
 4. +Vs

Output Waveform



Test Circuit



* Inclusive of jiggging and equipment capacitance

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Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr)	Fall Time (tf)	Duty Cycle	Model Number
0.8 to <20MHz	±20ppm* ±25ppm* ±50ppm ±100ppm	3.3V ±10%	10mA	5ns	5ns	45/55%	CFPP-39, CFPP-39S, CFPP-39I
		2.5V ±10%	8mA				CFPP-40, CFPP-40S, CFPP-40I
		1.8V ±10%	6mA				CFPP-41, CFPP-41S, CFPP-41I
20.0 to <40.0MHz		3.3V ±10%	15mA				CFPP-39, CFPP-39S, CFPP-39I
		2.5V ±10%	10mA				CFPP-40, CFPP-40S, CFPP-40I
		1.8V ±10%	7mA				CFPP-41, CFPP-41S, CFPP-41I
40.0 to <75.0MHz		3.3V ±10%	15mA				CFPP-39, CFPP-39S, CFPP-39I
		2.5V ±10%	10mA				CFPP-40, CFPP-40S, CFPP-40I
		1.8V ±10%	10mA				CFPP-41, CFPP-41S, CFPP-41I
75.0 to <90.0MHz		3.3V ±10%	20mA				CFPP-39, CFPP-39S, CFPP-39I
		2.5V ±10%	15mA				CFPP-40, CFPP-40S, CFPP-40I
		3.3V ±10%	25mA				CFPP-39, CFPP-39S, CFPP-39I

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Ordering Example 20.0MHz CFPP-39 I C

Frequency _____

Model No. _____

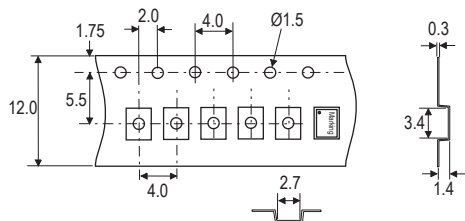
Operating Temperature Code: I = -40 to 85°C, S = -20 to 70°C, Not applicable for -10 to 60°C _____

Frequency Stability: G = ±20ppm, A = ±25ppm, B = ±50ppm, C = ±100ppm _____

*Note: ±20ppm & ±25ppm over -40+85°C (codes IG & IA) & ±20ppm over -20+70°C (code SG) are not available

Please note that the rise and fall times listed are the maximum values we specify to cover various frequency breaks. In practice the actual values are generally lower depending upon the spot frequency chosen. For typical values please contact our sales office.

Tape (mm)



Reel (mm)

