

CFPP-39, -40, -41 FAST MAKE OSCILLATORS

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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-39, -40 and -41 for standard crystal oscillator alternative
- See IQMS-520 series for MEMS oscillator alternative

Frequency Range

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

Output Compatibility & Load

- Tri-state CMOS
- Drive Capability 15pF max

Supply Voltage

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

Frequency Stabilities

- ± 20 ppm, ± 25 ppm, ± 50 ppm, ± 100 ppm (inclusive of tolerance, supply voltage & output load variations over the operating temperature range)
- Note: ± 20 ppm not available over -20 to 70°C or -40 to 85°C
- Also ± 25 ppm not available over -40 to 85°C

Operating Temperature Ranges

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

Storage Temperature Range

- -55 to 125°C

Standby Operation

- 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
- Standby Current: $10\mu\text{A}$ max

Period Jitter

- 150ps max

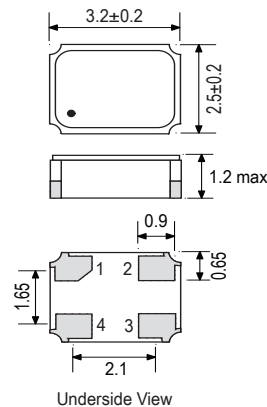
Start Up Time

- 8ms max

Packaging

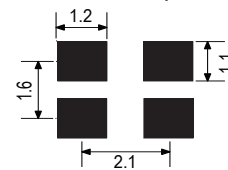
- Loose in bulk pack, 1pc per bag
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

Outline (mm)



Pad Connections
 1. Standby
 2. GND
 3. Output
 4. +VS

Solder Pad Layout



Ordering Information (*minimum required)

- Frequency*
- Model*
- Output Compatibility
- Frequency Stability (over operating temperature range)*
- Operating Temperature Range*
- Supply Voltage

Example

- 20.00MHz CFPP-39
 CMOS ± 50 ppm -40 to 85°C 3.3V



Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current	Rise Time (tr) (10-90%)	Fall Time (tf) (90-10%)	Duty Cycle	Model Number
1.0 to <20.0MHz	±20ppm ±25ppm ±50ppm ±100ppm	3.3V ±10%	10mA	5ns	5ns	45/55%	CFPP-39
		2.5V ±10%	8mA				CFPP-40
		1.8V ±10%	6mA				CFPP-41
20.0 to <40.0MHz		3.3V ±10%	15mA				CFPP-39
		2.5V ±10%	10mA				CFPP-40
		1.8V ±10%	7mA				CFPP-41
40.0 to <75.0MHz		3.3V ±10%	15mA				CFPP-39
		2.5V ±10%	10mA				CFPP-40
		1.8V ±10%	10mA				CFPP-41
75.0 to <90.0MHz	3.3V ±10%	20mA	CFPP-39				
	2.5V ±10%	15mA	CFPP-40				
90.0 to 110.0MHz	3.3V ±10%	25mA	CFPP-39				

Note: For other frequency/specification combinations, please contact our sales offices

Test Circuit

Output Waveform

