CFPP-9, -12 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-9 and CFPS-12 for standard crystal oscillator alternative
- See IQMS-510 series for MEMS oscillator alternative

Frequency Range

- 1 to 150MHz

Output Compatibility & Load

- Tri-state CMOS (5.0V) (CFPP-12)

Maximum Capacitive Load	
CMOS ≤ 66.0MHz	50pF
CMOS > 66.0 to 150.0MHz	25pF

- Tri-state CMOS (3.3V) (CFPP-9)

Maximum Capacitive Load	
CMOS ≤ 40.0MHz	30pF
CMOS > 40.0 to 133.0MHz	15pF

Supply Voltages

- 3.3V CFPP-9
- 5.0V CFPP-12

Standard Frequency Stabilities

- ±25ppm, ±50ppm, ±100ppm (inclusive of supply voltage and output load variations over the operating temperature range)

Operating Temperature Ranges

- 0 to 70°C
- –40 to 85°C

Storage Temperature Range

- –55 to 125°C

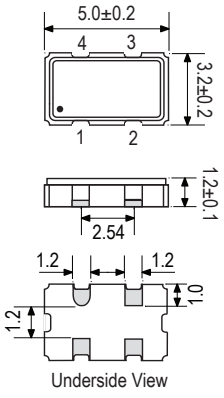
Tri-State Operation

- 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

Packaging

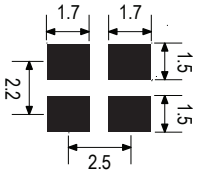
- Loose in bulk pack, 1pc per bag
- Tape and reel in accordance with EIA-481-D, 1kpcs per reel (please see pages 372 & 373)

Outline (mm)



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

Solder Pad Layout



Ordering Information (*minimum required)

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

Example

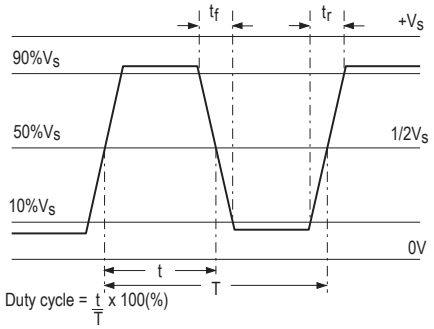
- 20.00MHz CFPP-9
  CMOS ±50ppm –40 to 85C 3.3V

Electrical Specifications - maximum limiting values

Frequency Range	Frequency Stability	Supply Voltage	Supply Current (unloaded)	Rise Time (t_r) (10-90%)	Fall Time (t_f) (90-10%)	Duty Cycle	Model Number
1.0 to 40.0MHz	±25ppm ±50ppm ±100ppm	5.0V ±0.5V	45mA	4ns	4ns	45/55%	CFPP-12
		3.3V ±0.3V	25mA				CFPP-9
>40.0 to 66.0MHz		5.0V ±0.5V	45mA				CFPP-12
		3.3V ±0.3V	25mA			40/60%	CFPP-9
>66.0MHz to 100.0MHz		5.0V ±0.5V	45mA				CFPP-12
		3.3V ±0.3V	25mA				CFPP-9
>100.0 to 133.0MHz		5.0V ±0.5V	45mA				CFPP-12
		3.3V ±0.3V					CFPP-9
>133.0 to 150.0MHz		5.0V ±0.5V	60mA				CFPP-12
Note: For other frequency/specification combinations, please contact our sales offices							

Jitter $_{pk-pk}$ (typical)		Jitter $_{pk-pk}$ (max)	
1.0 to 33.0MHz	>33.0MHz	1.0 to 33.0MHz	>33.0MHz
100ps	75ps	250ps	175ps

Output Waveform



Test Circuit