

# CFPP-149, -307 FAST MAKE OSCILLATORS

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## Description

- PLL based, one time only factory programmable for a fast lead time
- Crystal oscillator in an 8pin DIL package hermetically sealed
- See IQXO-149 and CFPS-307 for standard crystal oscillator alternative

## Frequency Range

- 1 to 150MHz

## Output Compatibility & Load

- Tri-state CMOS (5.0V) (CFPP-149)

Maximum Capacitive Load for:	
CMOS $\leq$ 66.0MHz	50pF
CMOS $>$ 66.0 to 150.0MHz	25pF

- Tri-state CMOS (3.3V) (CFPP-307)

Maximum Capacitive Load for:	
CMOS $\leq$ 40.0MHz	30pF
CMOS $>$ 40.0 to 133.0MHz	15pF

## Supply Voltage

- 5.0V CFPP-149
- 3.3V CFPP-307

## Standard Frequency Stabilities

- $\pm 25$ ppm,  $\pm 50$ ppm,  $\pm 100$ ppm (inclusive of supply voltage & 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 pin 1 enables oscillator output
- Logic '0' to pin 1 disables oscillator output; when disabled the oscillator output goes to the high impedance state
- No connection to pin 1 enables oscillator output

## Packaging

- Loose in bulk pack, 1pc per box

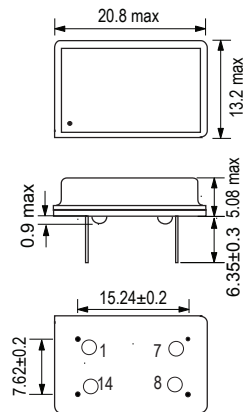
## Ordering Information (\*minimum required)

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

## Example

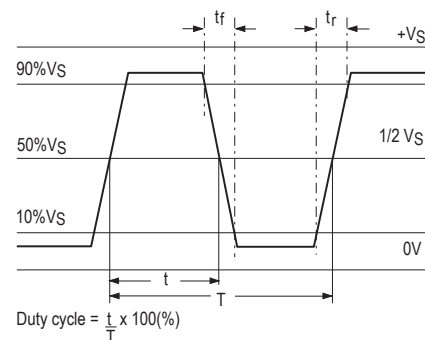
- 20.00MHz CFPP-149  
CMOS  $\pm 50$ ppm -40 to 85C 5.0V

## Outline (mm)

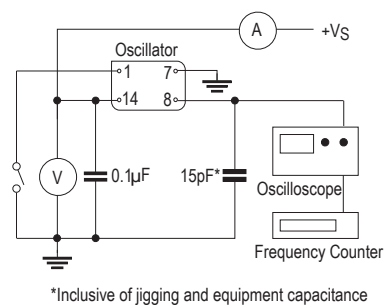


Pin Connections  
 1. N/C or Tri-State  
 7. GND  
 8. Output  
 14.+Vs

## Output Waveform



## Test Circuit



\*Inclusive of jigging and equipment capacitance



**Electrical Specifications - maximum limiting values**

Frequency Range	Frequency Stability	Supply Voltage	Supply Current (unloaded)	Rise Time (tr) (10-90%)	Fall Time (tf) (90-10%)	Duty Cycle	Model Number
1.0 to 40.0MHz	±25ppm ±50ppm ±100ppm	5.0V ±0.5V	45mA	4ns	4ns	45/55%	CFPP-149
		3.3V ±0.3V	25mA				CFPP-307
>40.0 to 66.0MHz		5.0V ±0.5V	45mA				CFPP-149
		3.3V ±0.3V	25mA				CFPP-307
>66.0MHz to 100.0MHz		5.0V ±0.5V	45mA				CFPP-149
		3.3V ±0.3V	25mA				CFPP-307
>100.0 to 133.0MHz		5.0V ±0.5V	45mA			CFPP-149	
		3.3V ±0.3V	25mA			CFPP-307	
>133.0 to 150.0MHz		5.0V ±0.5V	60mA			CFPP-149	

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

