

ISSUE 9; March 2016

Description

- PLL based, one time only factory programmable (for a fast lead time) crystal oscillator in a hermetically sealed 14-pin DIL metal package.
- This model is not approved for on-board avionics applications; in such instances our 'CFPP-149 AVIATION' version should be specified.
- See IQXO-821 for our standard crystal oscillator alternative.

Frequency Parameters

- Frequency: 1.0MHz to 150.0MHz
- Frequency Stability: $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$
- Ageing: $\pm 5\text{ppm}$ max in 1st year @ 25°C
- All frequency stabilities are inclusive of tolerance, supply voltage & load variations over the operating temperature range.

Electrical Parameters

- Supply Voltage: 5.0V $\pm 0.5\text{V}$

Operating Temperature Ranges

- 0 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility: CMOS

Drive Capability	
1.0MHz to 66.0MHz	50pF max
66.0MHz to 150.0MHz	25pF max

Output Control

- 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

Noise Parameters

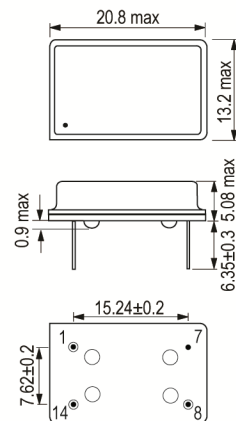
- Jitter pk-pk (typical):
 - 1MHz to 33MHz: 100ps
 - >33MHz: 75ps
- Jitter pk-pk (max):
 - 1MHz to 33MHz: 250ps
 - >33MHz: 175ps

Environmental Parameters

- Storage Temperature Range: -55 to 125°C



Outline (mm)



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

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Ordering Information

- Frequency*
Model*
Output Compatibility
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Supply Voltage
(*minimum required)
- Example
20.0MHz CFPP-149
CMOS ± 50 ppm -40 to 85 C 5.0V

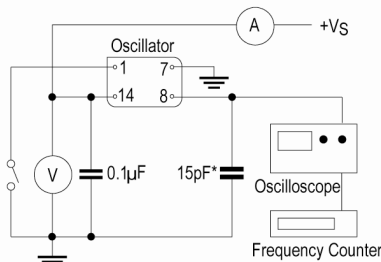
Compliance

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

Packaging Details

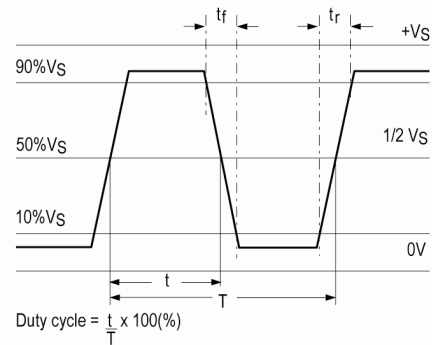
- Pack Style: Bulk Loose in bulk pack
Pack Size: 1

Test Circuit



*Inclusive of jigging and equipment capacitance

Wave Form



Electrical Specification - maximum limiting values 5.0V ± 0.5 V

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 -40 to 85	± 25.0 ± 25.0	45 45	4 4	45/55 45/55
40.000001MHz	66.0MHz	0 to 70 -40 to 85	± 25.0 ± 25.0	45 45	4 4	45/55 45/55
66.000001MHz	100.0MHz	0 to 70 -40 to 85	± 25.0 ± 25.0	45 45	4 4	40/60 40/60
100.000001MHz	133.0MHz	0 to 70 -40 to 85	± 25.0 ± 25.0	45 45	4 4	40/60 40/60
133.000001MHz	150.0MHz	0 to 70 -40 to 85	± 25.0 ± 25.0	60 60	4 4	40/60 40/60

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