CFPT9050

SMD Temperature Compensated Voltage Controlled Crystal Oscillator (PLUTO)

A highly versatile series of surface mountable 14.7 x 9.2 x 6.2 mm Temperature Compensated Voltage Controlled Crystal Oscillators (TCVCXOs) for applications where small size and high performance are prerequisites.

Product description

This CFPT9050 uses Rakon's proprietary ASIC 'Pluto™', a single chip oscillator and analogue compensation circuit, capable of sub 0.3ppm performance. Its wide frequency range, operating temperature range, drive capability, coupled with its high stability and linear frequency pulling, make it the ideal reference oscillator. Its ability to function down to a supply voltage of 2.4 volts and low power consumption makes it particulary suitable for mobile applications.

Applications

- Communications
- Other

Features

- Low power consumption
- Sub 0.3ppm stability over extended temperature range
- Wide frequency range

Specifications

1.0 SPECIFICATION REFERENCES

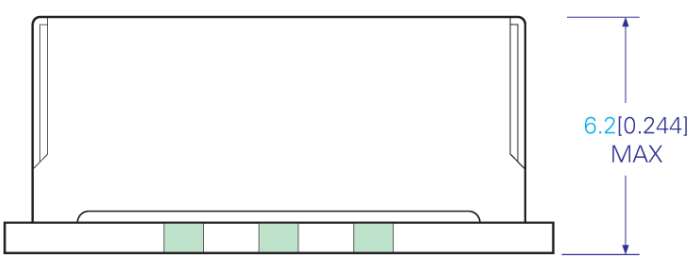
Line	Parameter	Description
1.1	Model Description	CFPT9050
1.2	RoHS compliant	Yes, part numbers with suffix 'LF' (non-RoHS version available upon request)
1.3	Package size available	14.7mm x 9.2mm

2.0 FREQUENCY CHARACTERISTICS

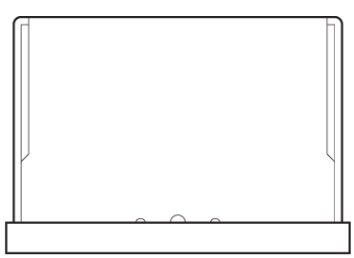
Line	Parameter	Test Condition	Value	Unit
2.1	Frequency range	Frequency range available dependent on output type: refer to note 1	1 to 80	MHz
2.2	Frequency calibration	Initial calibration @ 25°C	±0.5 max	ppm
2.3	Reflow shift	Measured ≥ 60 minutes after reflow	±1 max	ppm
2.4	Frequency stability over temperature	Stability reference to (Fmax + Fmin)/2	±0.3 to 2.5	ppm
2.5	Temperature range	Operating temperature range over which temperature stability is measured.	-55 to 105	°C
2.6	Supply voltage stability	Supply voltage varied ±10% at 25°C (dependent on frequency and output type). Typical:	±0.2	ppm
2.7	Load sensitivity	15pF±5pF (dependent on frequency and output type). Typical:	±0.2	ppm
2.8	Long term stability	first year, ≤ 20MHz	±1 max	ppm
2.9	Long term stability	first year, > 20MHz	±2 max	ppm
2.10	Long tem stability	10 years, ≤ 20MHz	±3 max	ppm
2.11	Long term stability	10 years, > 20MHz	±5 max	ppm

Drawing Name: CFPT9050 Model Drawing

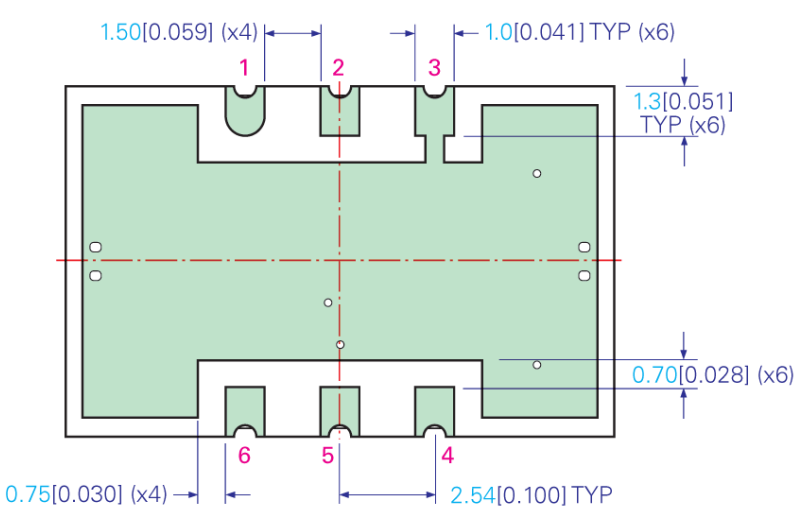
TOP VIEW



SIDE VIEW



END VIEW



BOTTOM VIEW

NOTE: Pin connections are detailed in the specification

TITLE: CFPT9050 MODEL OUTLINE DRAWING	
FILENAME: CFPT9050_MD	REVISION: A
RELATED DRAWINGS:	DATE: 26-Jul-10
	SCALE: 5 : 1
	Millimeters [inch]

Tolerance:
XX =±0.5
X.X =±0.2
X.XX =±0.10
X.XXX =±0.05
X° =±1.0°
Hole =±0.10

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