



ISSUE 7; August 2014 - RoHS 2011/65/EU

Description

- Standard 7 x 5mm Voltage Controlled Crystal Oscillator
Ceramic package with a seam sealed metal lid, hermetically sealed
For pulling of $\pm 100\text{ppm}$ please see our CFPV-43 range
For pulling of $\pm 100\text{ppm}$ min APR please see our CFPV-46 range
For a 3.3V version, please see our CFPV-42 range



Frequency Parameters

- Frequency 1.0MHz to 80.0MHz
- Frequency Stability $\pm 25.00\text{ppm}$ to $\pm 100.00\text{ppm}$

Electrical Parameters

- Supply Voltage 5.0V $\pm 0.25\text{V}$
- Start-Up Time: 10ms max

Frequency Adjustment

- Pulling $\pm 50\text{ppm}$ min
- Control Voltage 2.5V $\pm 2.0\text{V}$
- Input Impedance 100k Ω typ
- Linearity: Positive $\pm 10\%$ max
- Modulation Bandwidth: 20kHz min

Operating Temperature Ranges

- 10 to 70°C
- 40 to 85°C

Output Details

- Output Compatibility HCMOS
- Drive Capability 15pF max
- Logic '1' ($>70\%V_S$) to pad 2 enables oscillator output
Logic '0' ($<30\%V_S$) to pad 2 disables oscillator output; when disabled the oscillator output goes to the high impedance state
No connection pad 2 enables oscillator output

Noise Parameters

- Phase Jitter: 20MHz max 1ps rms (12kHz - 1MHz)

Environmental Parameters

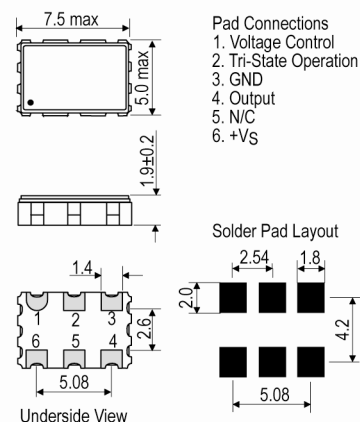
- Storage Temperature Range: -40 to 85°C
- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine)
- Vibration: Sinewave, frequency range 10-55Hz, amplitude 1.52mm, 2hrs in X, Y, Z axes (total 6 hrs)

Ordering Information

- Frequency*
Model*
Output
Frequency Stability (over operating temperature range)*
Operating Temperature Range*
Supply Voltage
Pullability
(*minimum required)
- Example
20.0MHz CFPV-41
HCMOS $\pm 50\text{ppm}$ -40 to 85C 5.0V $\pm 50\text{ppm}$ min



Outline (mm)



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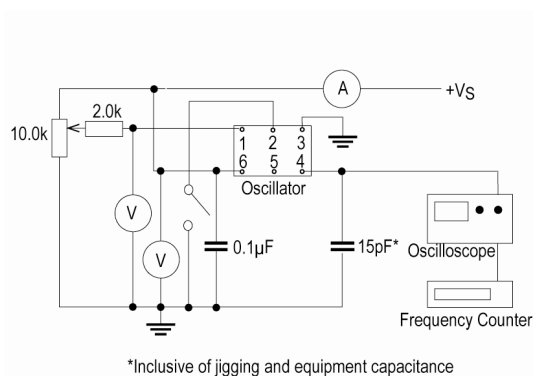
Compliance

- RoHS Status Compliant
- REACH Status Compliant
- MSL Rating (JDEC-STD-033): Not Applicable

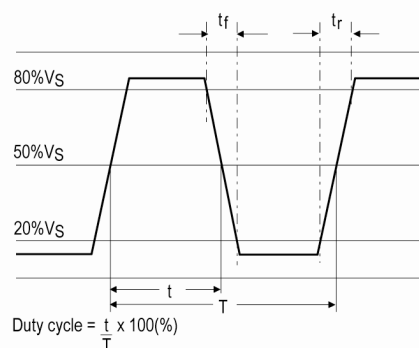
Packaging Details

- Pack Style: Reel Tape & reel in accordance with EIA-481-D
Pack Size: 1,000
- Pack Style: Cutt In tape, cut from a reel
Pack Size: 1
- Pack Style: Bulk Loose in bulk pack
Pack Size: 100

Test Circuit



Wave Form



Electrical Specification - maximum limiting values 5.0V ±0.25V

Frequency Min	Frequency Max	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
1.0MHz	18.0MHz	-40 to 85	±25.0	20	5	40/60
		-10 to 70	±25.0	20	5	40/60
18.000001MHz	30.0MHz	-40 to 85	±25.0	30	5	40/60
		-10 to 70	±25.0	30	5	40/60
30.000001MHz	36.0MHz	-40 to 85	±25.0	30	5	40/60
		-10 to 70	±25.0	30	5	40/60
36.000001MHz	52.0MHz	-40 to 85	±25.0	40	5	40/60
		-10 to 70	±25.0	40	5	40/60
52.000001MHz	80.0MHz	-40 to 85	±50.0	50	5	40/60
		-10 to 70	±50.0	50	5	40/60

This document was correct at the time of printing; please contact your local sales office for the latest version.

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