



ISSUE 5; August 2014 - RoHS 2011/65/EU

Description

- LVPECL output Voltage Controlled Crystal Oscillator
Using PPL technology to give a very wide frequency range
Pulling range of $\pm 80\text{ppm}$ min
Ceramic package with a seam sealed metal lid, hermetically sealed
For a wider pulling range please see our CFPV-55

Frequency Parameters

- Frequency 50.0MHz to 700.0MHz
- Frequency Stability $\pm 25.00\text{ppm}$ to $\pm 50.00\text{ppm}$

Electrical Parameters

- Supply Voltage $3.3\text{V} \pm 5\%$
- Input Impedance (voltage control, pad 1) $60\text{k}\Omega$ min
- Voltage Control (pad 1): $+1.65\text{V} \pm 1.5\text{V}$ (positive sense)

Frequency Adjustment

- Pulling $\pm 80\text{ppm}$ min
- Control Voltage $+1.65\text{V} \pm 1.5\text{V}$
- Input Impedance $60\text{k}\Omega$

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility LVPECL
- Drive Capability Output load 50Ω terminated to $+1.3$
- '0' Level VoL $+1.7\text{V}$ max
- '1' Level VoH $+2.2\text{V}$ min

Output Control

- Logic '1' to pad 1 disables oscillator output; when disabled the oscillator goes to the high impedance state ($>V_S - 1.10\text{V}$)
Logic '0' to pad 1 enables oscillator output ($<V_S - 1.60\text{V}$)
No connection to pad 1 enables oscillator output

Noise Parameters

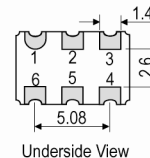
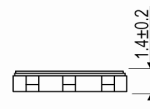
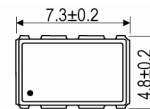
- Phase Noise (max)
-37dBc/Hz @ 10Hz
-75dBc/Hz @ 100Hz
-105dBc/Hz @ 1kHz
-107dBc/Hz @ 10kHz
-145dBc/Hz @ 100kHz
-145dBc/Hz @ 1MHz
- 1ps rms max (12kHz to 20MHz)

Environmental Parameters

- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine)
- Vibration: MIL-STD-202F, Method 204D, Test Condition D
20G, frequency range 10-2000Hz, 4 hrs in X, Y & Z axes (total 12hrs)
- Storage Temperature Range: -40 to 85°C



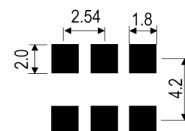
Outline (mm)



Underside View

Pad Connections
1. Voltage Control
2. Tri-State Operation
3. GND
4. Output +
5. Output -
6. $+V_S$

Solder Pad Layout



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Ordering Information

- Frequency*
- Model*
- Output
- Frequency Stability*
- Operating Temperature Range*
- Supply Voltage
- Pullability
- Example
- 200.0MHz CFPV-32
- LVPECL $\pm 50\text{ppm}$ -40 to 85°C $3.3\text{V} \pm 80\text{ppm min}$

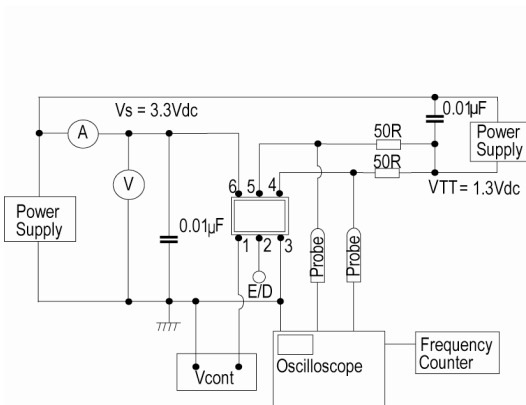
Compliance

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

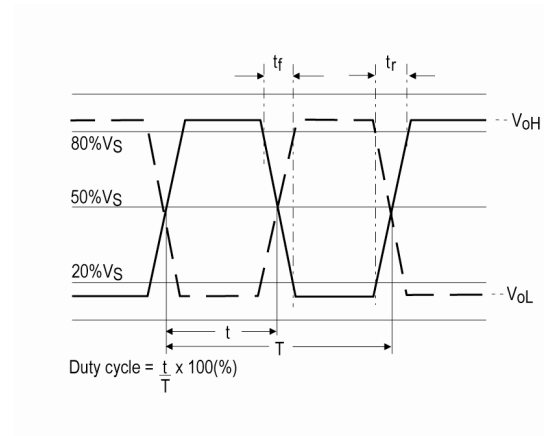
Packaging Details

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

Test Circuit



Wave Form



Electrical Specification - maximum limiting values $3.3\text{V} \pm 5\%$

Frequency Min	Frequency Max	Temperature Range	Stability (min)	Current Draw	Rise and Fall Time	Duty Cycle
		$^\circ\text{C}$	ppm	mA	ns	%
50.0MHz	700.0MHz	-40 to 85	± 50.0	120	0.5	40/60
		-10 to 70	± 25.0	120	0.5	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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