

ISSUE 5; June 2017

Description

- LVPECL output Voltage Controlled Crystal Oscillator
Using PPL technology to give a very wide frequency range
Wide pulling of $\pm 150\text{ppm}$ min
Ceramic package with a seam sealed metal lid hermetically sealed
For a more controllable smaller pulling range please see our CFPV-32



Frequency Parameters

- Frequency: 12.0MHz to 700.0MHz
- Frequency Stability: $\pm 25.00\text{ppm}$ to $\pm 50.00\text{ppm}$

Electrical Parameters

- Supply Voltage: $3.3\text{V} \pm 5\%$

Frequency Adjustment

- Pulling: $\pm 150\text{ppm}$ min
- Control Voltage: $+1.65\text{V} \pm 1.5\text{V}$
- Input Impedance: $60\text{k}\Omega$ min

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C

Output Details

- Output Compatibility: LVPECL
- Drive Capability: 50Ω terminated to $+1.3\text{V}$
- Logic '1' ($>V_s - 1.10\text{V}$) to pad 1 disables oscillator output; when disabled the oscillator goes to the high impedance state
Logic '0' ($<V_s - 1.60\text{V}$) to pad 1 enable oscillator output
No connection to -ad enable oscillator output

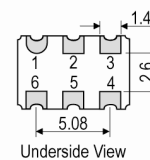
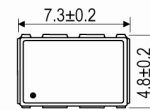
Noise Parameters

- Phase Noise (max)
 - 45dBc/Hz @ 10Hz
 - 65dBc/Hz @ 100Hz
 - 95dBc/Hz @ 1kHz
 - 120dBc/Hz @ 10kHz
 - 117dBc/Hz @ 100kHz
 - 115dBc/Hz @ 1MHz
 - 135dBc/Hz @ 10MHz
- Phase Jitter: 5ps rms max (12kHz - 20MHz)

Environmental Parameters

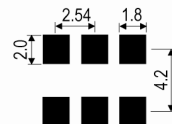
- Shock: MIL-STD-202F, Method 213B (1000G, 0.5ms, 1/2 sine)
- Vibration: MIL-STD-202F, Method 204D, Test Condition D 20G, frequency range 10-2000Hz, 4hrs in X, Y & Z axes (total 12hrs)
- Storage Temperature Range: -40 to 85°C

Outline (mm)



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

Solder Pad Layout



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Ordering Information

- Frequency*
 - Model*
 - Output
 - Frequency Stability (over operating temperature range)*
 - Operating Temperature Range*
 - Supply Voltage
 - Pullability
- Example
 - 100.00MHz CFPV-55
 - LVPECL ±50ppm -10 to 70C 3.3V ±150ppm min

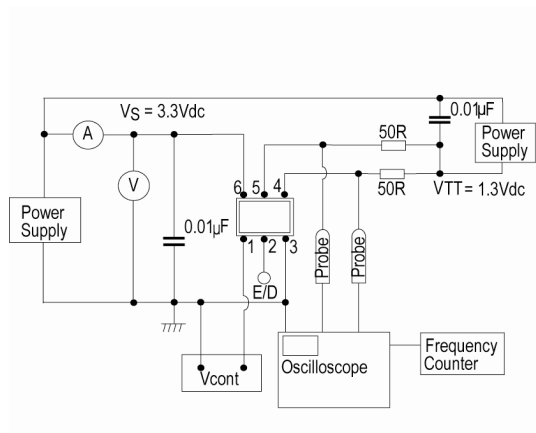
Compliance

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

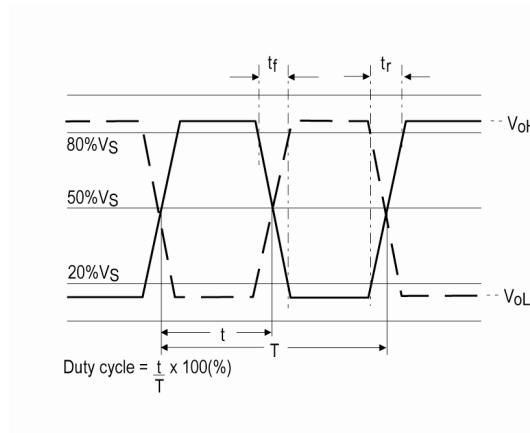
Packaging Details

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

Test Circuit



Wave Form



Electrical Specification - maximum limiting values 3.3V ±5%

Frequency Min	Frequency Max	Temperature Range	Stability (Min)	Current Draw	Rise and Fall Time	Duty Cycle
		°C	ppm	mA	ns	%
12.0MHz	99.999999MHz	-10 to 70	±25.0	120	1	40/60%
		-40 to 85	±50.0	120	1	40/60%
100.0MHz	700.0MHz	-10 to 70	±25.0	120	0.5	40/60%
		-40 to 85	±50.0	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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