



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
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 3.3V $\pm 5\%$

Frequency Adjustment

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

Operating Temperature Ranges

- -10 to 70°C
- -40 to 85°C

Output Details

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

Noise Parameters

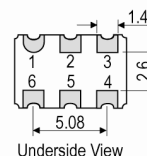
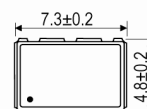
- Phase Noise (max)
-45dBc/Hz @ 10Hz
-65dBc/Hz @ 100Hz
-95dBc/Hz @ 1kHz
-120dBc/Hz @ 10kHz
-117dBc/Hz @ 100kHz
-115dBc/Hz @ 1MHz
-135dBc/Hz @ 10MHz
- Phase Jitter: 5ps rms max (12kHz - 20MHz)

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

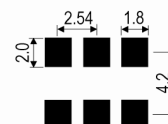


Outline (mm)



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 ± 50 ppm -10 to 70C 3.3V ± 150 ppm min

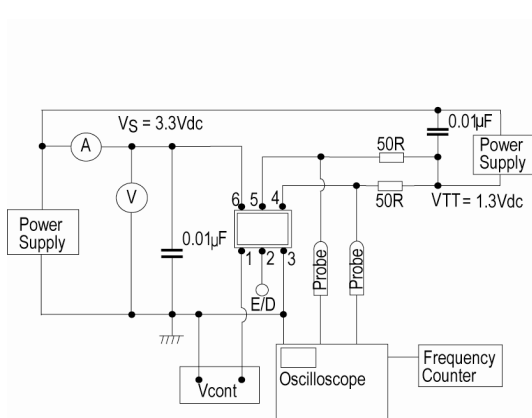
Compliance

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

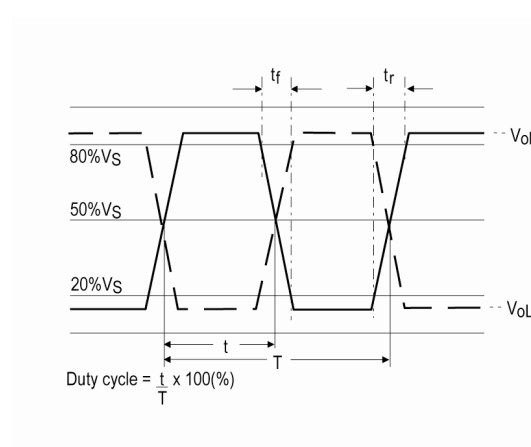
Packaging Details

- Pack Style: Cutt In tape, cut from a reel
- Pack Size: 1
- 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 $\pm 5\%$

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