

LV91/LV97 Series 3.3 V LVDS Clock Oscillators

July 2012



- Pletronics LV91/LV97 Series is a quartz crystal controlled precision square wave generator with an LVDS output.
- Solder pad compatible legacy LVDS oscillator solutions.
- FR4 base using the LV93 or LV99 5x7 mm ceramic packaged SMD device.
- Tape and Reel packaging is available.
- 10.9 to 670 MHz
- 9.7 mm x 14.0 mm 'B' package
- Enable/Disable Function:
 - LV91** on pad 2
 - LV97** on pad 1
- Low Jitter

***This series, LV91 and LV97, is not recommended for new designs.
* For new designs, pin-out on pad 1 is the only available option for LV99 series part.***

**Pletronics Inc. certifies this device is in accordance with the
RoHS 6/6 (2002/95/EC) and WEEE (2002/96/EC) directives.**

Pletronics Inc. guarantees the device does not contain the following:
Cadmium, Hexavalent Chromium, Lead, Mercury, PBB's, PBDE's
Weight of the Device: 0.66 grams
Moisture Sensitivity Level: 1 As defined in J-STD-020C
Second Level Interconnect code: e4

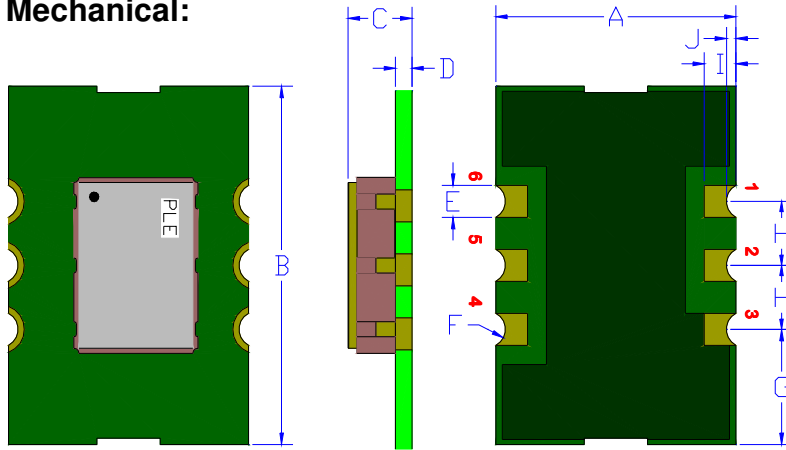
Absolute Maximum Ratings:

Parameter	Unit
V _{CC} Supply Voltage	-0.5V to +6.5V
V _i Input Voltage	-0.5V to V _{CC} + 0.5V
V _o Output Voltage	-0.5V to V _{CC} + 0.5V

Thermal Characteristics

The maximum die or junction temperature is 155°C
The thermal resistance junction to board is 40 to 80°C/Watt depending on the solder pads, ground plane and construction of the PCB.

Mechanical:



FR4 PCB Base:
Solder masked
All via holes tented on bottom
Copper Clad ½ oz. Typical
Gold plated 0.02 µinch (0.5 µm)

Pin 3 Ground plane is typical

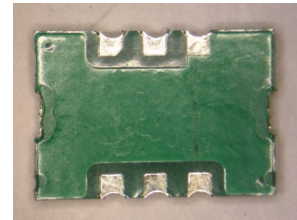
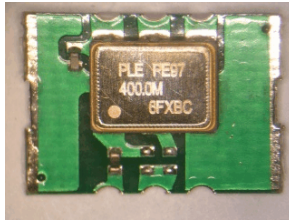
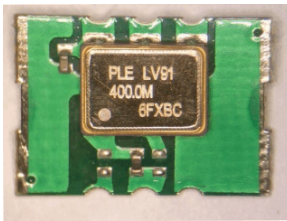
Not to scale

	Inches	mm
A	0.380 ±0.010	9.65 ±0.25
B	0.550 ±0.010	13.97 ±0.25
C	0.098 ±0.010	2.49 ±0.25
D ¹	0.026 typ.	0.66
E ¹	0.050	1.27
F ¹	0.028 R	0.72 R
G ¹	0.180	4.57
H ¹	0.100	2.54
I ¹	0.050	1.27
J ¹	0.015	0.38

¹ Typical Dimensions

Label:

Laser engraved on the 5x7 mm oscillator that is mounted on the FR4 base



LV91 Pad	LV97 Pad	Function	Note
2	1	Output Enable/Disable	When this pad is not connected the oscillator shall operate. This is not a recommended condition!!!!!! When this pad is <0.80 volts, the output will be inhibited (High impedance state) Recommend connecting this pad to V _{CC} if the oscillator is to be always on.
1	2	No function	Recommend connecting this pad to ground. The is internal connection.
3		Ground (GND)	
4		Output	The outputs must be terminated, 100 ohms between the outputs is the ideal termination. Capacitor coupled terminations can be used.
5		Output*	
6		Supply Voltage (V _{CC})	Recommend connecting appropriate power supply bypass capacitors as close as possible.