

Universal LED Board

General Description

The CL8800DB1 Universal LED Board is intended to be used to aid in the design of an LED lamp using the Supertex CL8800DB2 LED driver. It accommodates an LED arrangement of up to 60 in series and 3 in parallel (180 total). Multiple boards may be daisy-chained for longer strings. The LED string may be segmented, with each segment having independent series/parallel LED arrangements.

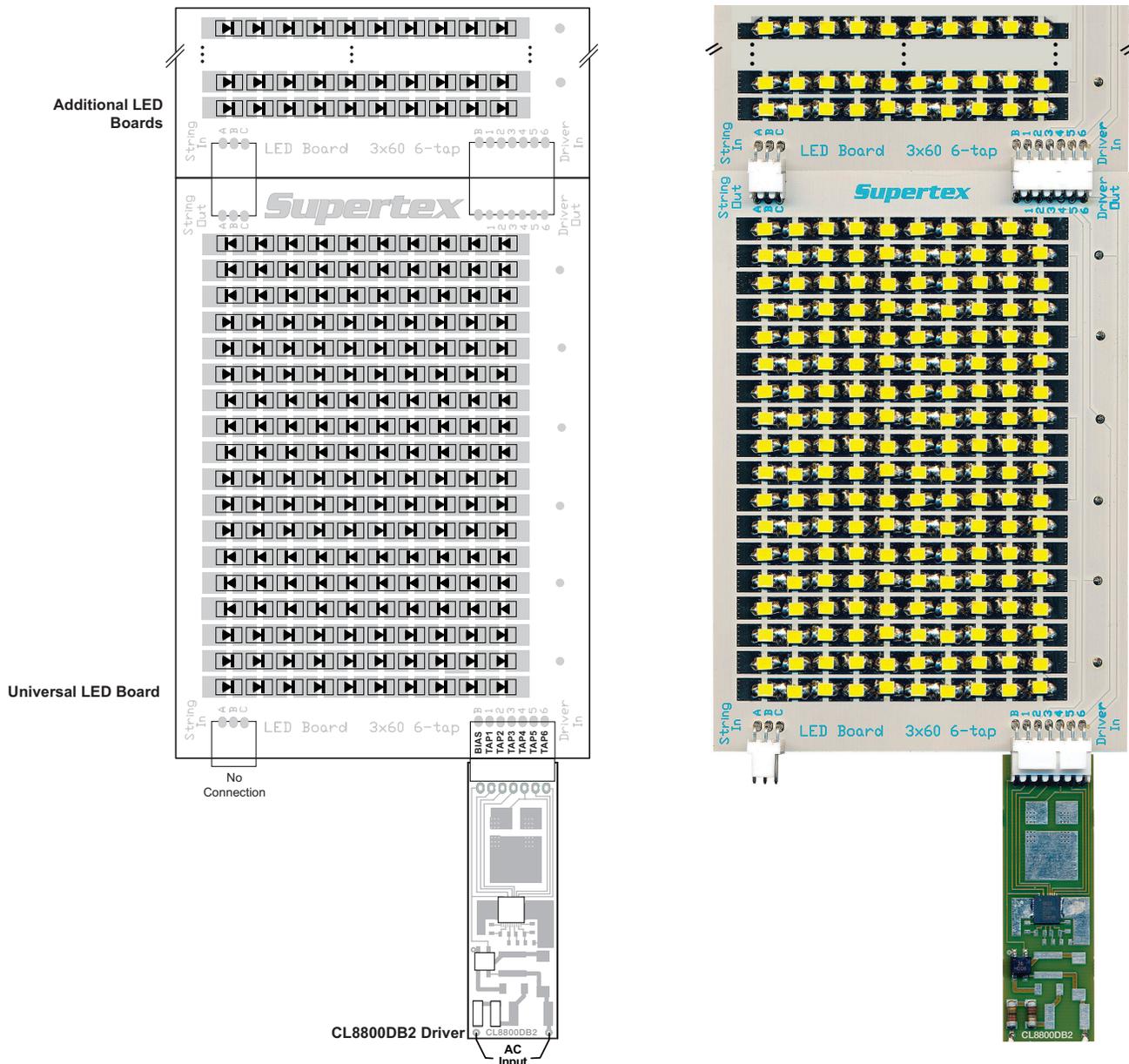
The board is provided without LEDs so that it may be used with the users' choice of LEDs. The LEDs should be mounted with the orientation shown below. Orientation reverses every 3 columns. A single board usually suffices for 120VAC, while two boards are generally needed for 220/230VAC applications.

For help in designing a CL8800 LED driver, please refer to the CL8800 Design Worksheet and Design Guidelines at:

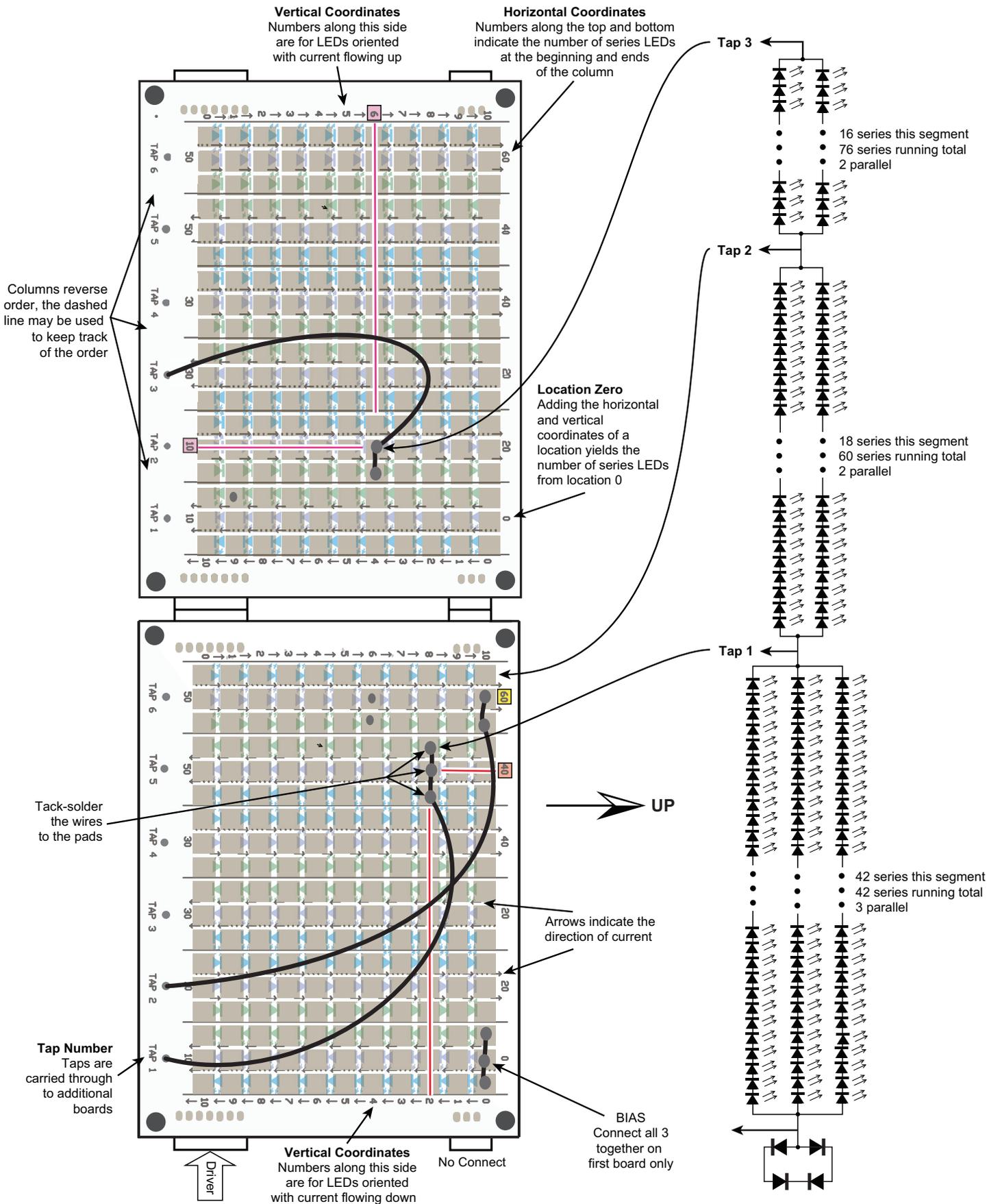
www.supertex.com/pdf/datasheets/CL8800_Design_Worksheet.xls

and www.supertex.com/pdf/misc/CL8800_Design_Guidelines.pdf

Board Layout (top view - wiring on bottom view)



Connection Diagram (bottom view - LEDs on top view, see instructions on next page)



The best way to explain how it is wired is by example. To keep things simple, the example shown on page 2 consists of only 3 LED string segments spanning 2 boards. The schematic shows the numbers and arrangement of the LEDs. It is shown mirror-image since the backside of the LED PCB is where the connections are made. Scales along the sides of the LED matrix can be used to map the locations of the taps. The LEDs are mounted with the orientation shown on the page 1. Orientation reverses every 3 columns. Column order is mirrored with every group of 3 columns.

Segment	Series LEDs	Location (running total)	Parallel LEDs
1	42	42	3
2	18	$42 + 18 = 60$	2
3	16	$42 + 18 + 16 = 76 - 60 = 16$	2

When a segment crosses over to an additional board, subtract 60 to obtain the location on the additional board.

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