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Seven Segment Display Board

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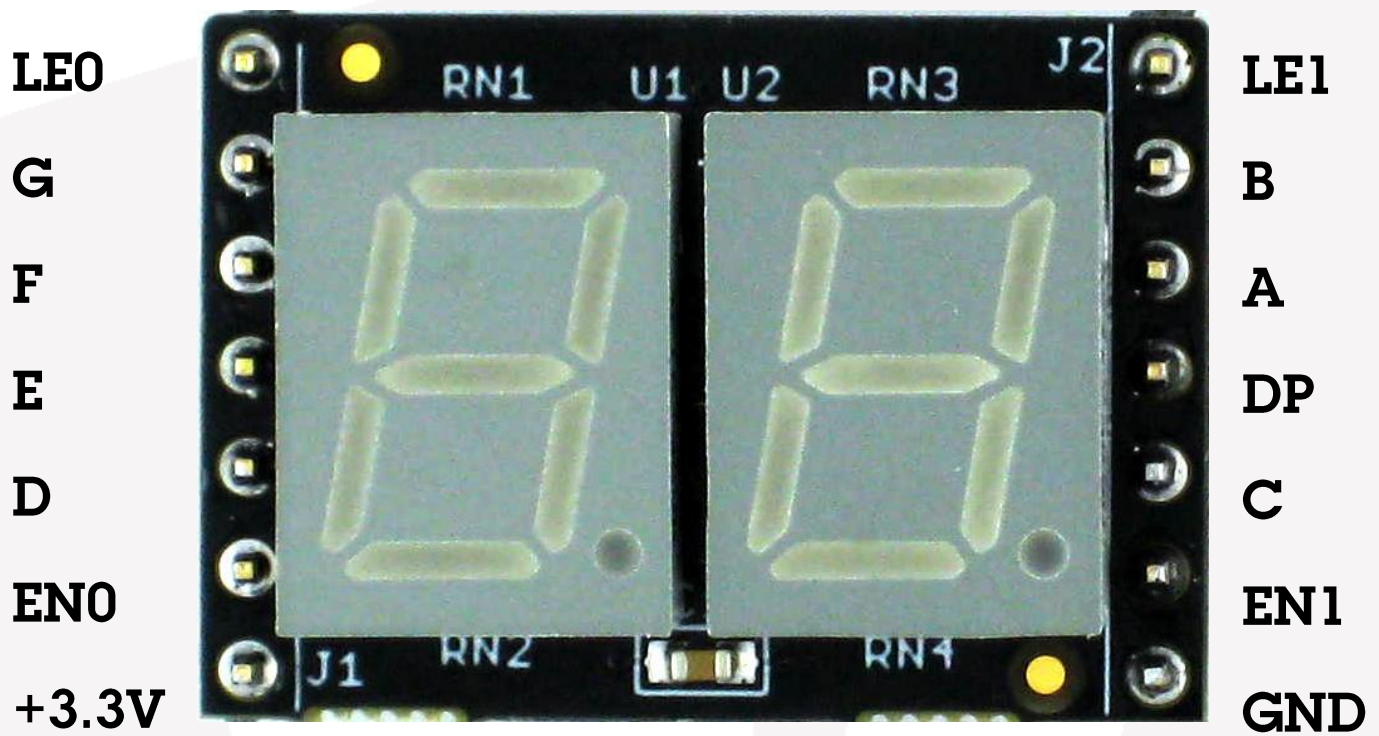


Figure 1: Board Pins

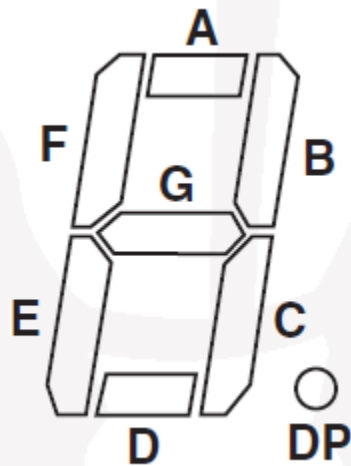


Figure 2: Seven Segment Labels

Overview

The seven segment display board contains dual displays with a single bus interface. The displays can be independently addressed and latched. The board as shown in figure 1 should be powered by 3.3V. Consult the SN74LVC573ARGYR latch datasheet for input characteristics.

Physical Interface

Latch enable(s) (LE0 LE1) When these signals are asserted high the current seven segment inputs will be cast upon the respective display(s). asserting the LEn pin will put the latch into transparent operation $D_n = Q_n$. When the pin is brought from high to low, the respective seven segment input state will be latched.

Output enables(s) (EN0 EN1) When these signals are brought low the latch outputs $Q_0:7$ will be enabled. Pulling the output enables low will turn off the seven segment displays

Seven segment inputs (A B C D E F G DP) Though these displays are called seven segment because there are seven segments used to create numbers there are actually 8 segments when we included DP (decimal point). These inputs control which segments are turned on. These signals are high true.