University of Florida

Department of Electrical & Computer Engineering

Dr. Eric M. Schwartz 23-May-21

Page 1/1

r Engineering Revision 0 7-SEGMENT DISPLAYS ON MAX 10 PCB

EEL 3701

Figure 1 shows the two 7-segment displays on the *MAX 10* PCB. The arrangement of each of the active-high LEDs on the two 7-segment LED devices are shown in Figure 2.

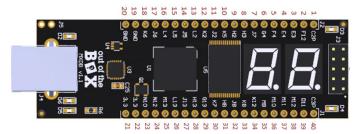


Figure 1: *MAX 10* PCB image. The 7-segment displays are parts U8 (left) and U7 (right).

The left most 7-segment display on the *MAX 10* PCB is labeled as U8 in the schematic (see **bottom** of Figure 3) and the right one is U7 (see **top** of Figure 3).

The corresponding *MAX 10* pins for each of the 7-segment display segments is shown in Figure 4.

7-segment displays are made by many companies, and the parts change regularly, but a specification sheet for one that we have used often is available <u>here</u>.

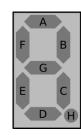


Figure 2: LED arrangement on 7-segment

7-Seg Segs	MAX 10 Pins	7-Seg Segs	MAX 10 Pins
U7-A	D9	U8-A	H10
U7-B	С9	U8-B	F8
U7-C	G12	U8-C	E8
U7-D	L10	U8-D	J12
U7-E	K10	U8-E	Н9
U7-F	J9	U8-F	J10
U7-G	E6	U8-G	L11
U7-DP	E12	U8-DP	E9

Figure 4: 7-segment display inputs with corresponding *MAX 10* pins.

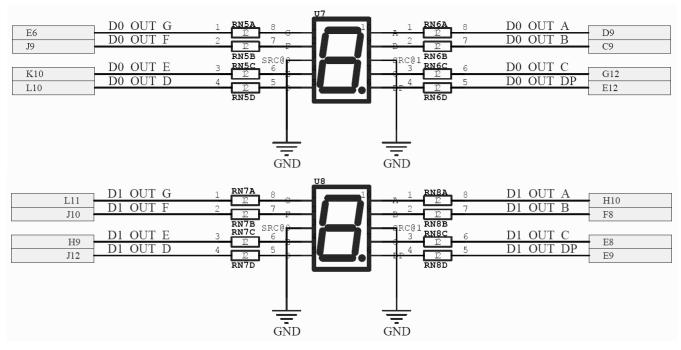


Figure 3: MAX 10 PCB image. The 7-segment displays are parts U7 (left) and U8 (right).