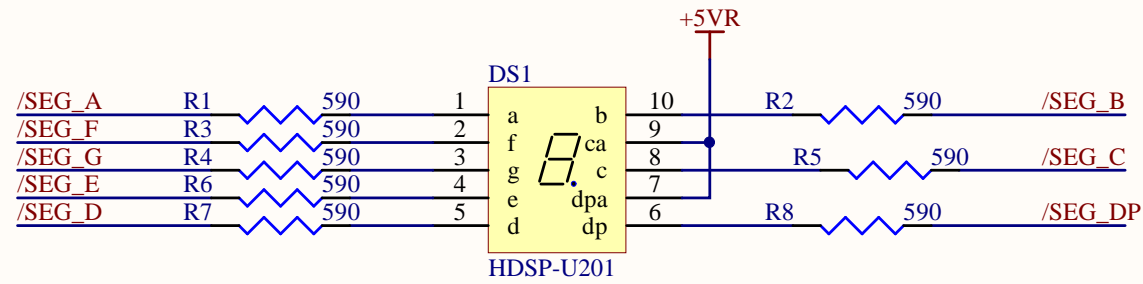
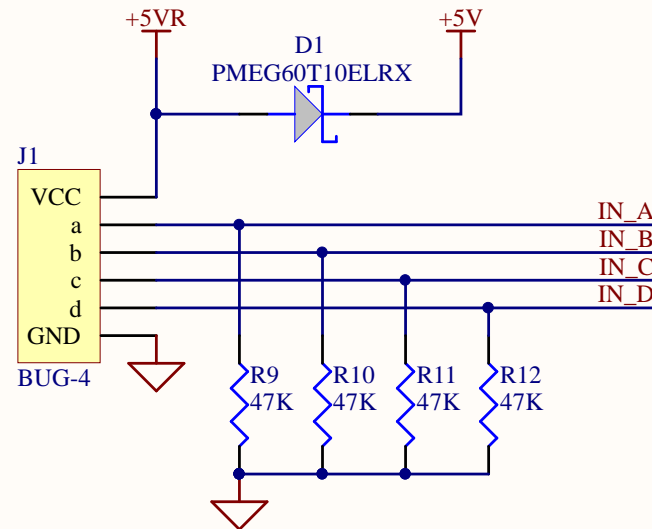


A



!! Note: 100mA(max) current allowed for Port A !!  
 $I_{Lmax}(porta) = ((5-V_{led})/R_{lim}) * 8 = 41 \text{ mA}$   
 $I_{led}(330) = 9.1\text{mA}; I_{led}(590) = 5.1\text{mA}$

HEX/BCD LED Display BugBoard  
Implements a HEX to 7-seg decoder with display.  
Input is [d:a] with pull-downs.  
Seg map (CA display, ground port pins to illuminate seg):

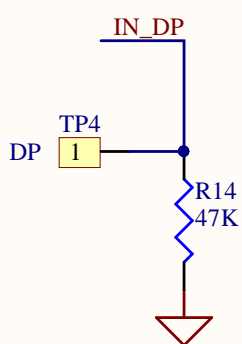
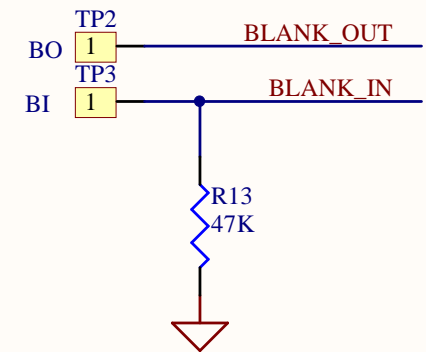
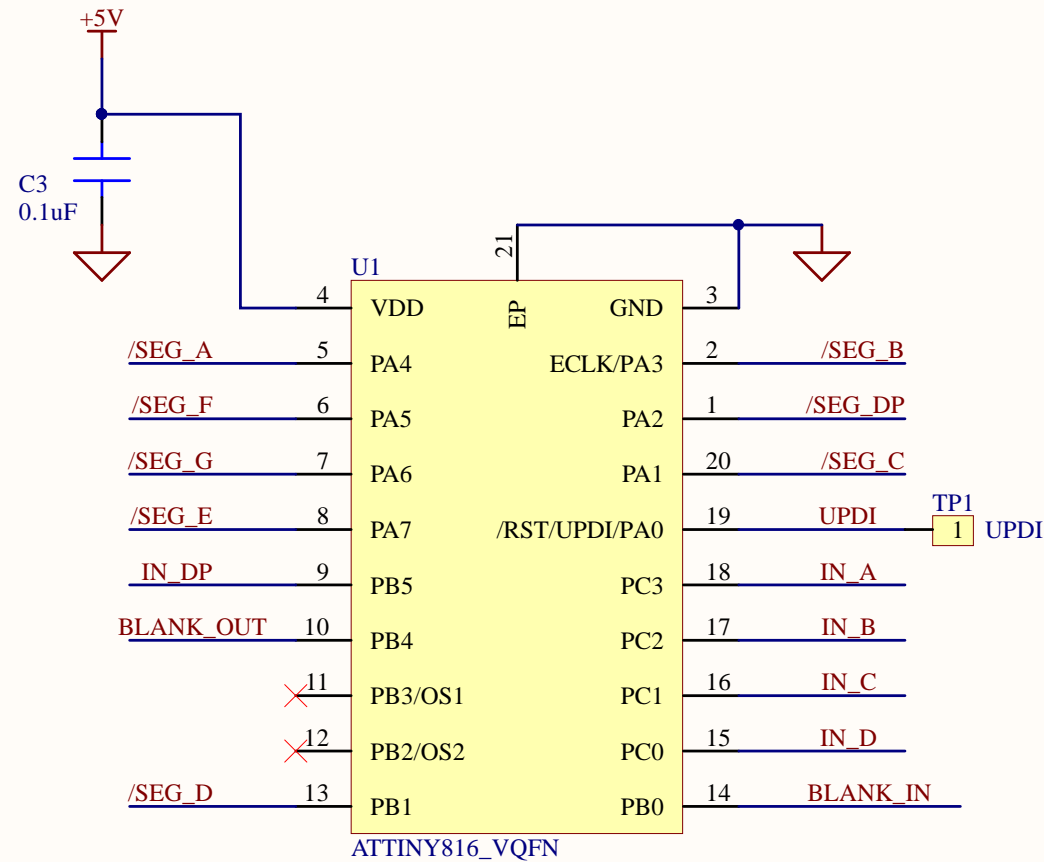
```
a
---
f / / b
--- <-- g
e / / c
---
```

```
$0 = "0", {abcdef}
$1 = "1", {bc}
$2 = "2", {abdeg}
$3 = "3", {abcdg}
$4 = "4", {bcfg}
$5 = "5", {acdfg}
$6 = "6", {acdefg}
$7 = "7", {abc}
$8 = "8", {abcdefg}
$9 = "9", {abcdfg}
$A = 'A', {abcefg}
$B = "b", {cdefg}
$C = "C", {adef}
$D = "d", {bcdeg}
$E = "E", {adefg}
$F = "F", {aefg}
```

DP is pinned to a test point as are BI & BO.  
Display blanks if input is \$0 & BI = 1  
BO = 1 if (input == \$0) && (BI == 1)

To use blanking, BI of the MSd = 1 & connect BO to next lowest digit, repeat for all but right most digit (it's BI is left open = 0). DP == 1 disables BI and BO.

B



C

D

A

B

C

D

Title		
Hex - 7seg display BugBoard		
Size	Number	Revision
A	bug7seg Designed by Joe Haas, KE0FF	-
Date:	5/6/2024	Sheet of
File:	C:\Users\...\bug7seg.SchDoc	Drawn By: KE0FF