

CRAZY CLOCK



STANDARD OPERATING MANUAL

Rev. 5-10-11

(Software Version: 05-10-11)



INTRODUCTION

Crazy Clock™ is a skill based ticket redemption game where the player must try to stop the clock hands on the lighted numbers to win the progressive bonus. Stop the first hand on the flashing 3, 6, 9, and 12 and have the other hand land on a 3, 6, 9, or 12 to win the progressive bonus.

Tickets are also won if the hands stop on any combination of numbers. If the player stops one hand on a non-flashing 3, 6, 9, or 12 and the other hand stops on another number, the value will be *multiplied* and the total value will be paid in tickets. If the both hands stop on numbers other than 3, 6, 9 or 12, the values will be *added* together and the sum will be awarded in tickets.

CRAZY CLOCK™ **OPTIONS & SETTINGS**

To change settings, press the **ERROR RESET** button located inside the front door. *Crazy Clock must be in attract mode to access and change settings.*

The **OPTION NUMBER** is displayed on the **CREDITS** display.

The **CURRENT VALUE** of the option is displayed on the **SCORE** display.

Press the **STOP BUTTON** to switch between **OPTION NUMBER** and **CURRENT VALUE**. The value you want to change will be highlighted.

Press **ERROR RESET** to increase the **OPTION NUMBER** or **CURRENT VALUE**

Press **ATTENDANT PAY** to decrease the **OPTION NUMBER** or **CURRENT VALUE**

Turn the game off and back on again to save the settings.

OPTIONS & SETTINGS

#	OPTION	RANGE (DEFAULT)	COMMENTS
1	CREDITS PER GAME START	1-20 (4)	SETS # OF CREDITS REQUIRED TO PLAY ONE GAME. NOTE: MUST BE SET TO "1" WHEN A CARD SWIPE SYSTEM IS INSTALLED.
2	CREDITS PER COIN	1-10 (1)	SETS # OF CREDITS GIVEN PER COIN INSERTED (OR CARD SWIPED).
3	GAME TIME	5-60 (30)	SETS NUMBER OF SECONDS BEFORE CLOCK HANDS STOP AUTOMATICALLY.
4	TICKET VALUE	1-5 (1)	NUMBER OF POINTS NEEDED FOR EACH TICKET TO BE DISPENSED. (POINTS/TICKET VALUE = # OF TICKETS DISPENSED)
5	DEMO MODE	ON/OFF (OFF)	METERS AND COIN ERRORS DISABLED. 4 TICKETS PAID REGARDLESS OF OUTCOME. (FOR DEMONSTRATION PURPOSES ONLY).
6	ATTENDANT PAY	OFF, 50-9950 (OFF)	MAX. # OF TICKETS PAID DIRECTLY BY GAME. ALL TICKETS IN EXCESS OF SETTING MUST BE PAID MANUALLY BY THE ATTENDANT. SETTING INCREMENTS BY 50.
7	SOUND IN ATTRACT	ON/OFF (ON)	ELIMINATES SOUND WHEN GAME IS NOT BEING PLAYED. <i>SOUND STILL ACTIVE DURING GAME PLAY.</i>
8	PROGRESSIVE BONUS RESET VALUE	150-9950 (500)	SETS BONUS VALUE AFTER A BONUS WINNER. SETTING INCREMENTS BY 50.
9	PROGRESSIVE BONUS CAP	OFF, 150-9950 (OFF)	MAX. BONUS VALUE. BONUS WILL NOT INCREMENT AFTER SET VALUE IS REACHED. INCREMENTS BY 50
10	PROGRESSIVE BONUS - COINS PER INCREMENT	1-10 (1)	NUMBER OF COINS NEEDED TO INCREMENT BONUS VALUE BY (VALUE OF OPTION 11)
11	PROGRESSIVE BONUS VALUE OF INCREMENT	1-10 (1)	NUMBER OF POINTS BONUS VALUE WILL INCREASE FOR (VALUE OF OPTION 10) COIN(S) INSERTED
12	PRICE PER PLAY	25-500 [\$0.25 to \$5.00] (\$1.00)	COST OF ONE PLAY (IN CENTS); INCREMENTS BY 5 CENTS. VALUE MUST BE SET FOR ACCURATE BOOKKEEPING STATISTICS. (SEE BELOW)
13	TICKET VALUE	40-500 [\$0.004 to \$0.05] (1¢)	VALUE OF A TICKET (IN HUNDREDTHS OF A CENT) INCREMENTS BY 5 (HUNDREDTHS)
14	PERCENTAGE SETTING	30% - 50% (40%)	SELECT DESIRED PAYOUT PERCENTAGE. INCREMENTS BY 5. OPTIONS 12 & 13 MUST BE SET ACCURATELY FOR PERCENTAGE SETTING TO OPERATE PROPERLY.

BOOKKEEPING *(FOR INFORMATION ONLY)*

15	OPERATING PERCENTAGE	VALUE OF AVG. TICKETS PAID PER GAME DIVIDED BY THE COST OF ONE GAME (<i>MUST SET PROPER VALUE IN OPTIONS 12 & 13</i>)
16	REGULAR WIN POINTS PER GAME	AVERAGE NUMBER OF NON-BONUS POINTS PAID PER GAME
17	BONUS POINTS PER GAME	AVERAGE NUMBER OF BONUS POINTS PAID PER GAME
18	TOTAL POINTS PER GAME	AVERAGE NUMBER OF TOTAL POINTS PAID PER GAME. (<i>OPTION 16 + OPTION 17</i>)
19	AVERAGE VALUE OF BONUS WINNER	TOTAL VALUE OF BONUS POINTS PAID DIVIDED BY # OF BONUS WINS
20	BONUS HIT FREQUENCY PERCENTAGE	BONUS GAMES WON DIVIDED BY NUMBER OF GAMES PLAYED.

NOTE: To clear bookkeeping, hold the **STOP BUTTON** while option 15, 16, 17, 18, 19 or 20 is on the display and then press the **ATTENDANT PAY** button.

To restore factory settings, cycle the AC power while holding both the **ERROR RESET** and **ATTENDANT PAY** buttons for at least 5 seconds.

DIAGNOSTIC MODE

To enter Diagnostic Mode, hold **ATTENDANT PAY** button while powering up the game, and release after you hear a beep.

Test 1 – Lights & Switches: This first test will light the coin mech lamps, the stop button, the LEDs around the stop button, and the lights along the outside of the clock face. You are now able to test all of the switches.

Pressing the **STOP BUTTON** will display a 79 on the score display.

Pressing **ERROR RESET** will display a 77 on the score display, dispense 3 tickets, and increment the ticket meter by 3.

Engaging the coin switches will display a 75 for coin 1 (or 76 for coin 2) on the score display, increment the coin meter by 1, and play the coin input sound.

Inserting a bill into the Bill Acceptor will display a 66 on the score display and show the bill value on the credit display. The bill will then be returned.

Press **ATTENDANT PAY** to proceed to the next test.

Test 2 - Displays: This test allows you to check all of the digit displays.

Pressing the stop button will cause the credit, score, and bonus displays to cycle through 0, 1111, 2222, etc... up to 9999.

Press **ATTENDANT PAY** to proceed to the next test.

Test 3 – Clock Numbers: The following test is used to check the clock face numbers.

Initially, the number 1 should be lit.

Pressing the stop button advances to the next number. The large digits should have all of the LEDs lit.

Press **ATTENDANT PAY** to proceed to the next test.

Test 4 – Motors & Sensors: The final test will check the clock hand motors and sensors.

The clock hands will rotate to 12 o'clock and then the hour hand will start spinning clockwise.

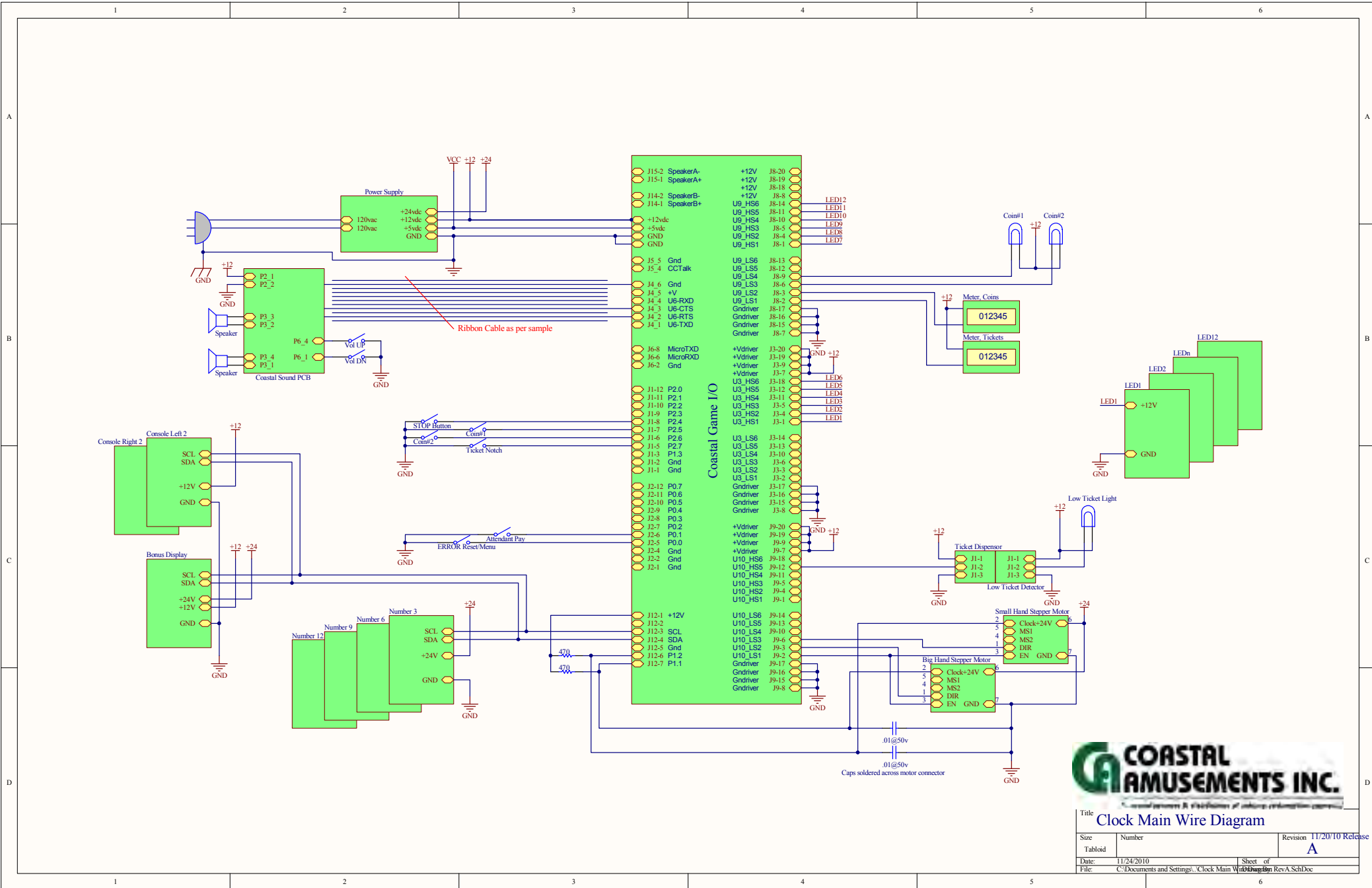
The score display will show the sensor position reading of that clock hand.

Pressing the stop button will stop the hour hand.

Pressing the stop button again will start the minute hand and show the sensor position reading of that hand.

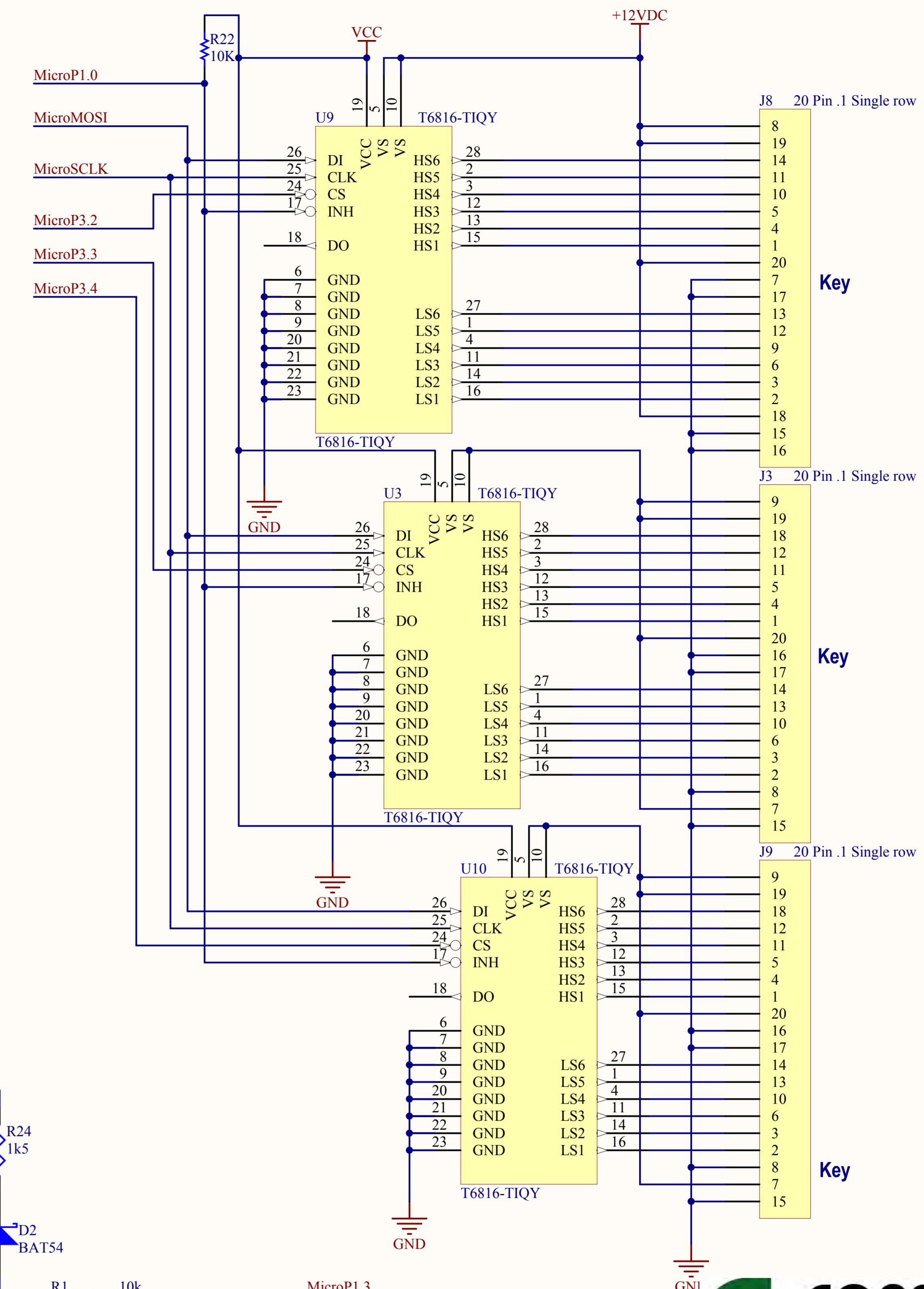
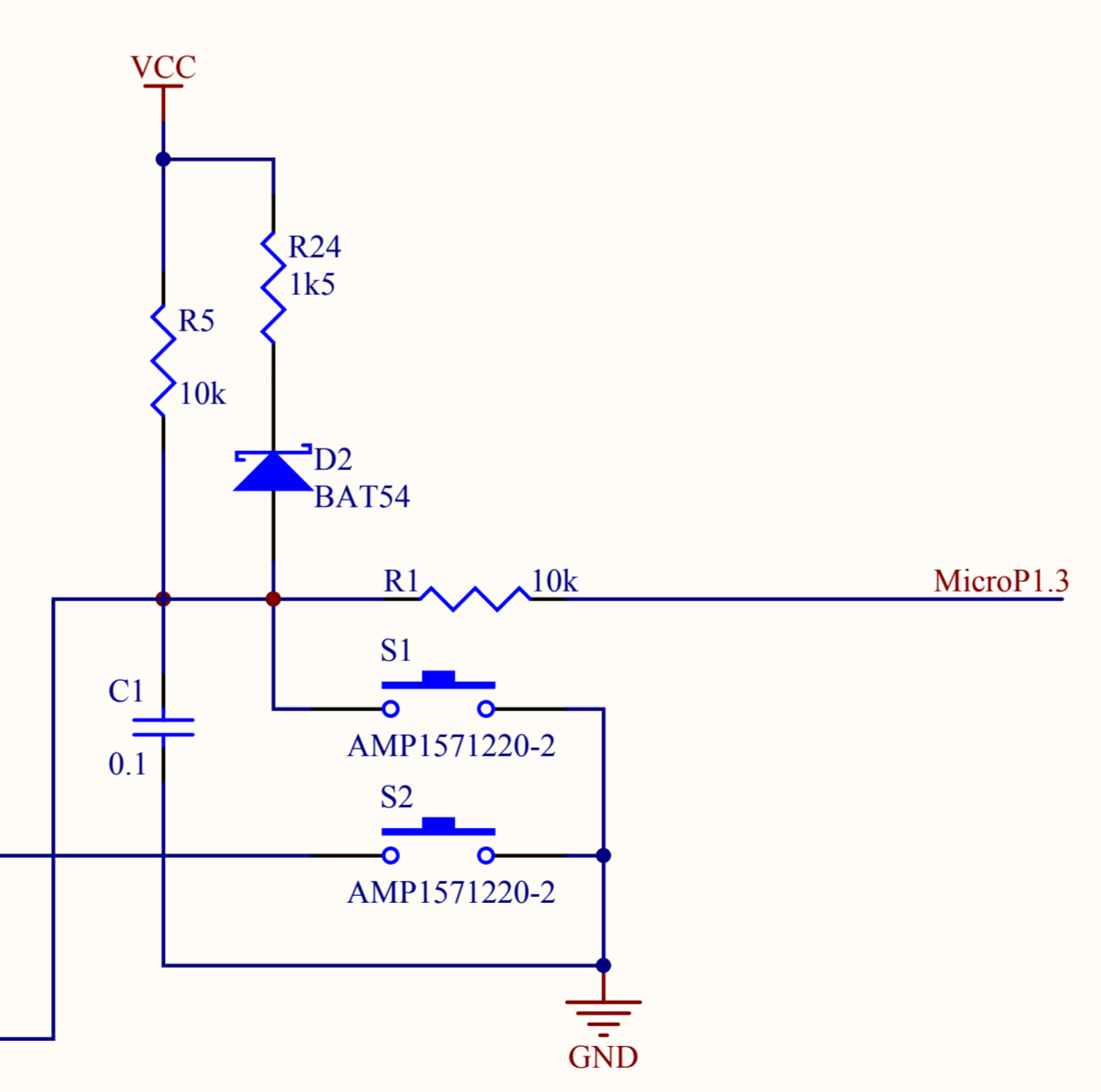
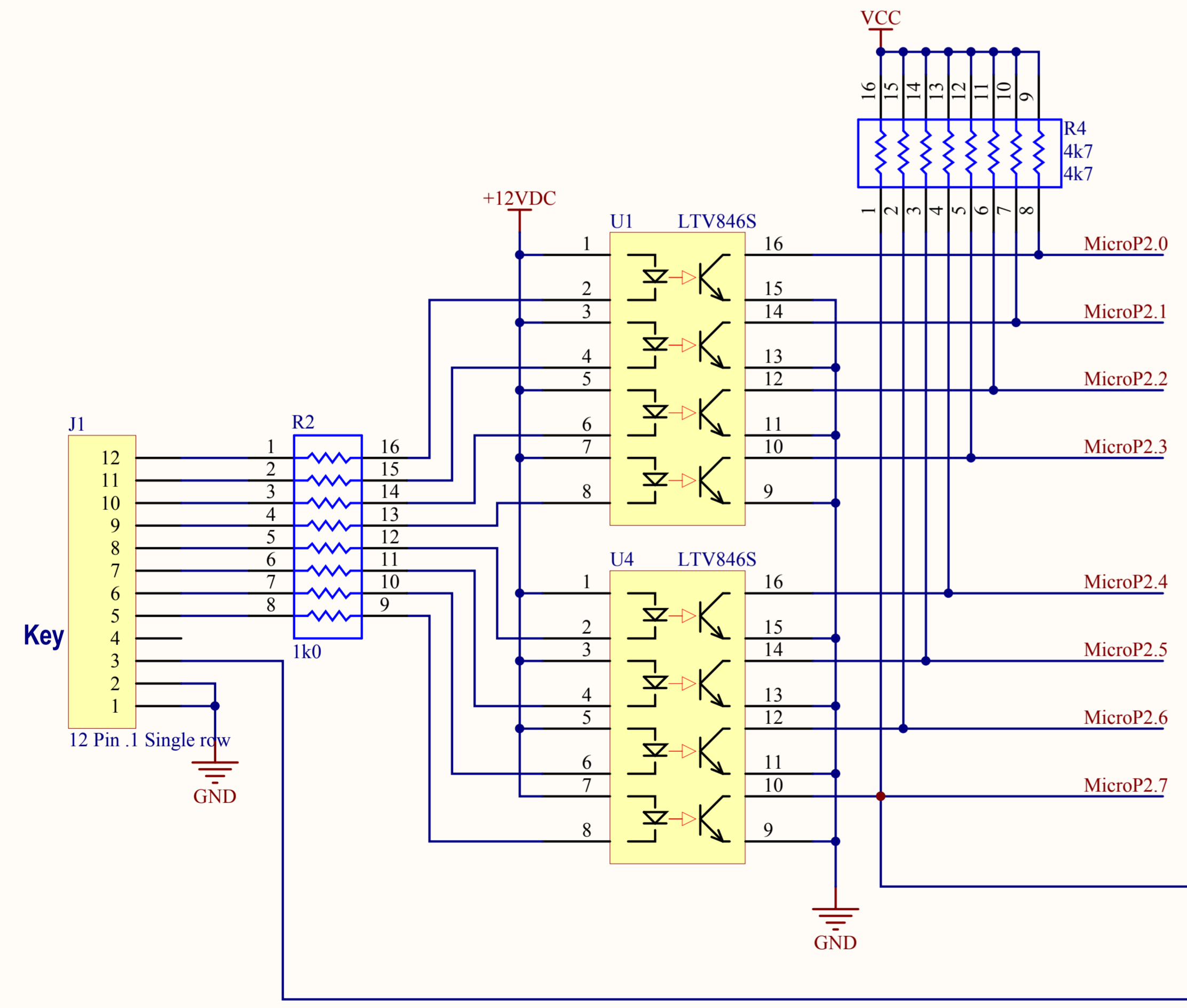
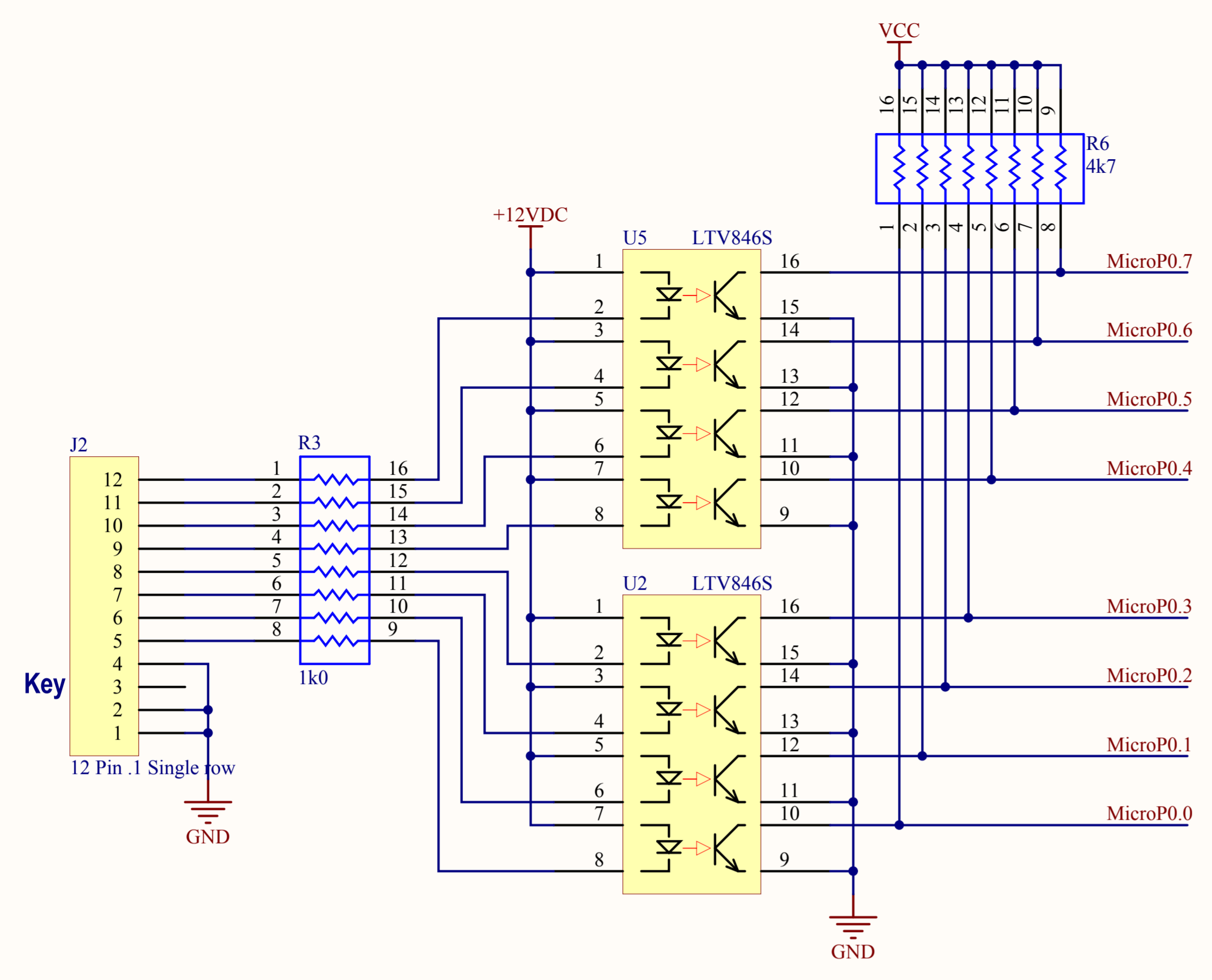
Pressing the stop button will slowly stop the minute hand.

IMPORTANT! DO NOT TURN OFF GAME WITH HANDS RUNNING!

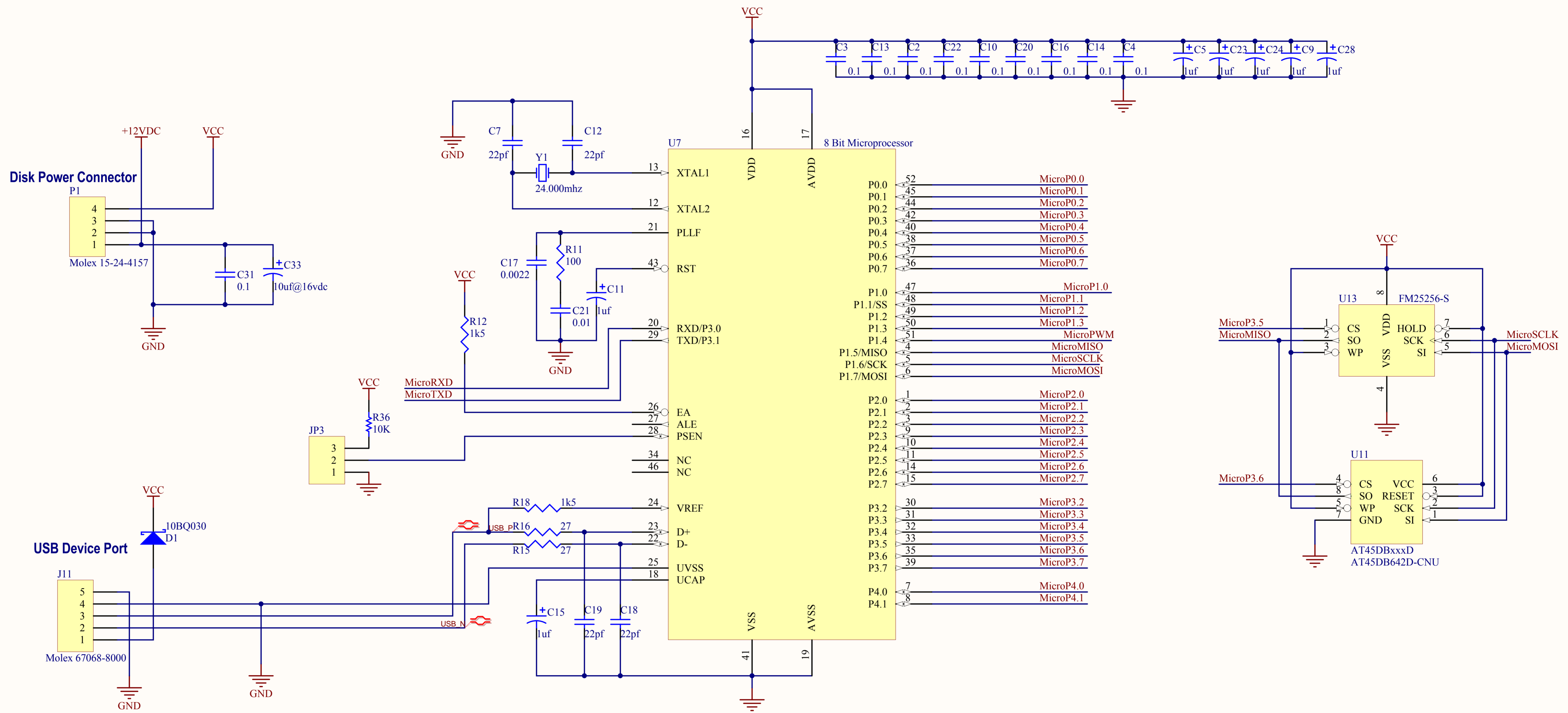


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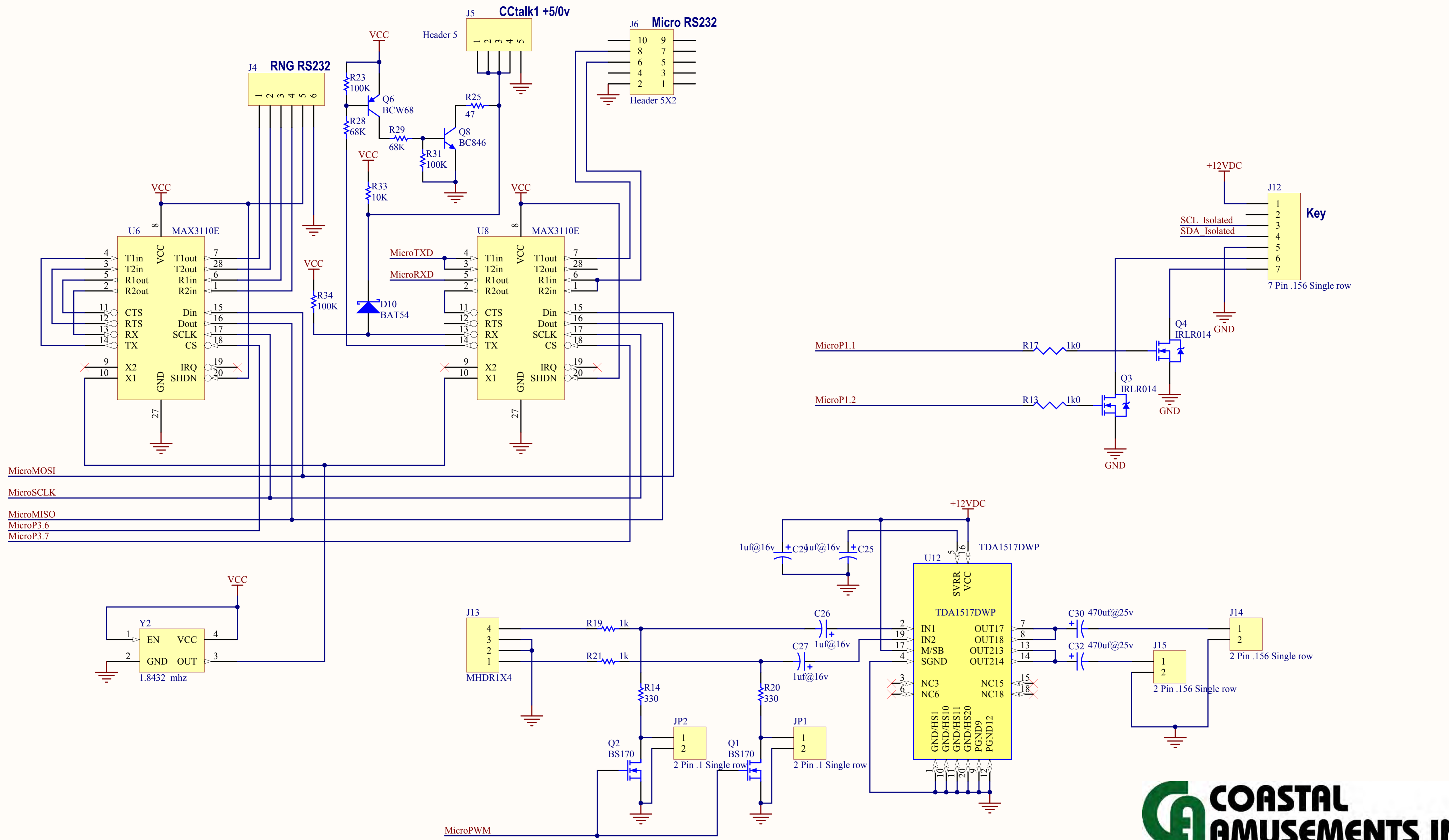
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Date: 11/24/2010	Sheet of: 1	File: C:\Documents and Settings\ Clock Main Wire Diagram RevA.SchDoc



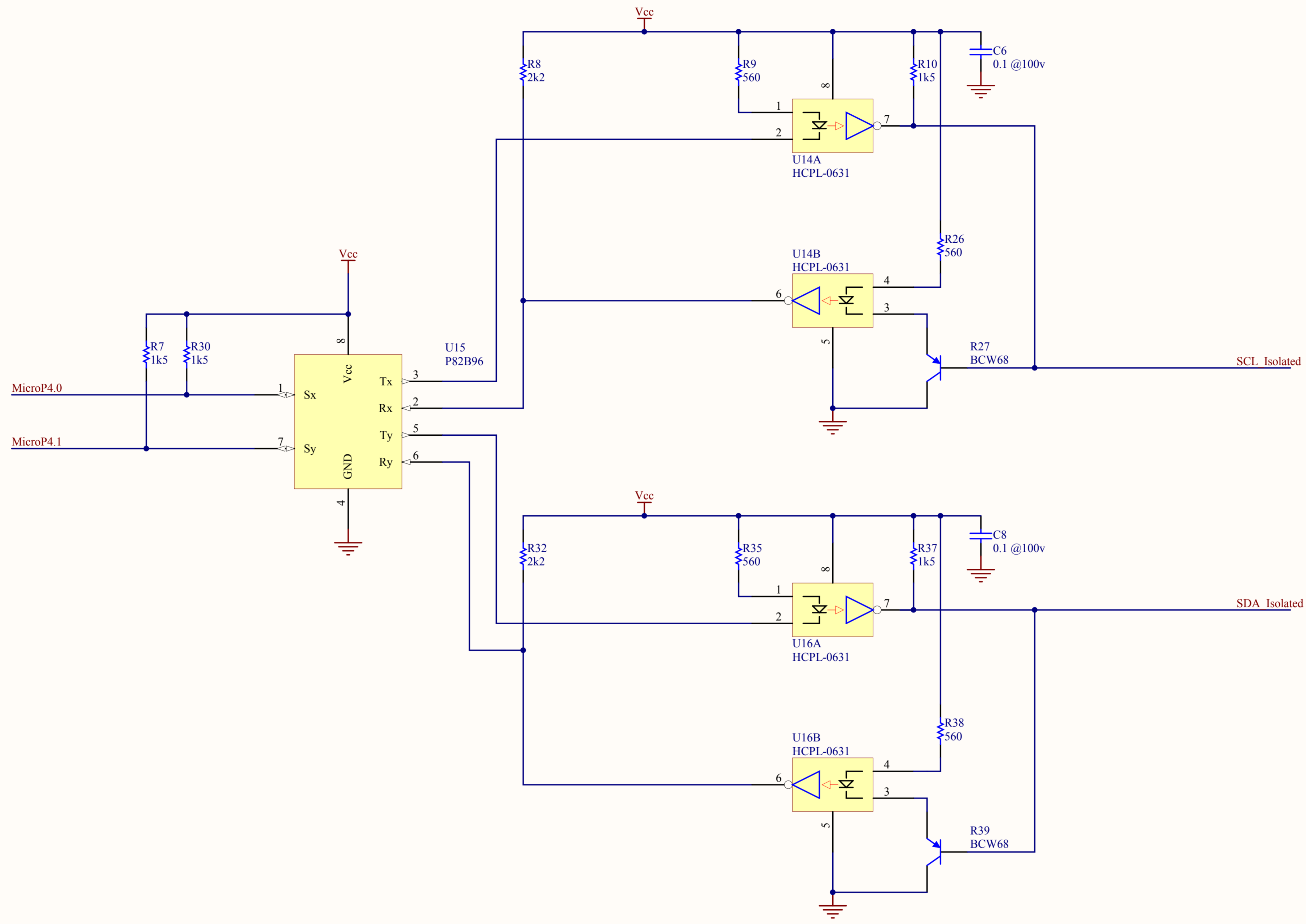
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Size B	Number	Revision G
Date: 4/19/2008	Sheet of 3 of 3	
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Size	Number	Revision
B		G
Date:	4/19/2008	Sheet of 1 of 3
File:	C:\Documents and Settings\...MicroProcessors\RevB\SchDoc	



Title Coastal Game I/O		
Size B	Number	Revision G
Date: 4/19/2008	Sheet of 2 of 3	
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Title		
TWI Opto Isolation		
Size	Number	Revision
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File:	C:\Documents and Settings\... \Twioptorev\CD... \...	

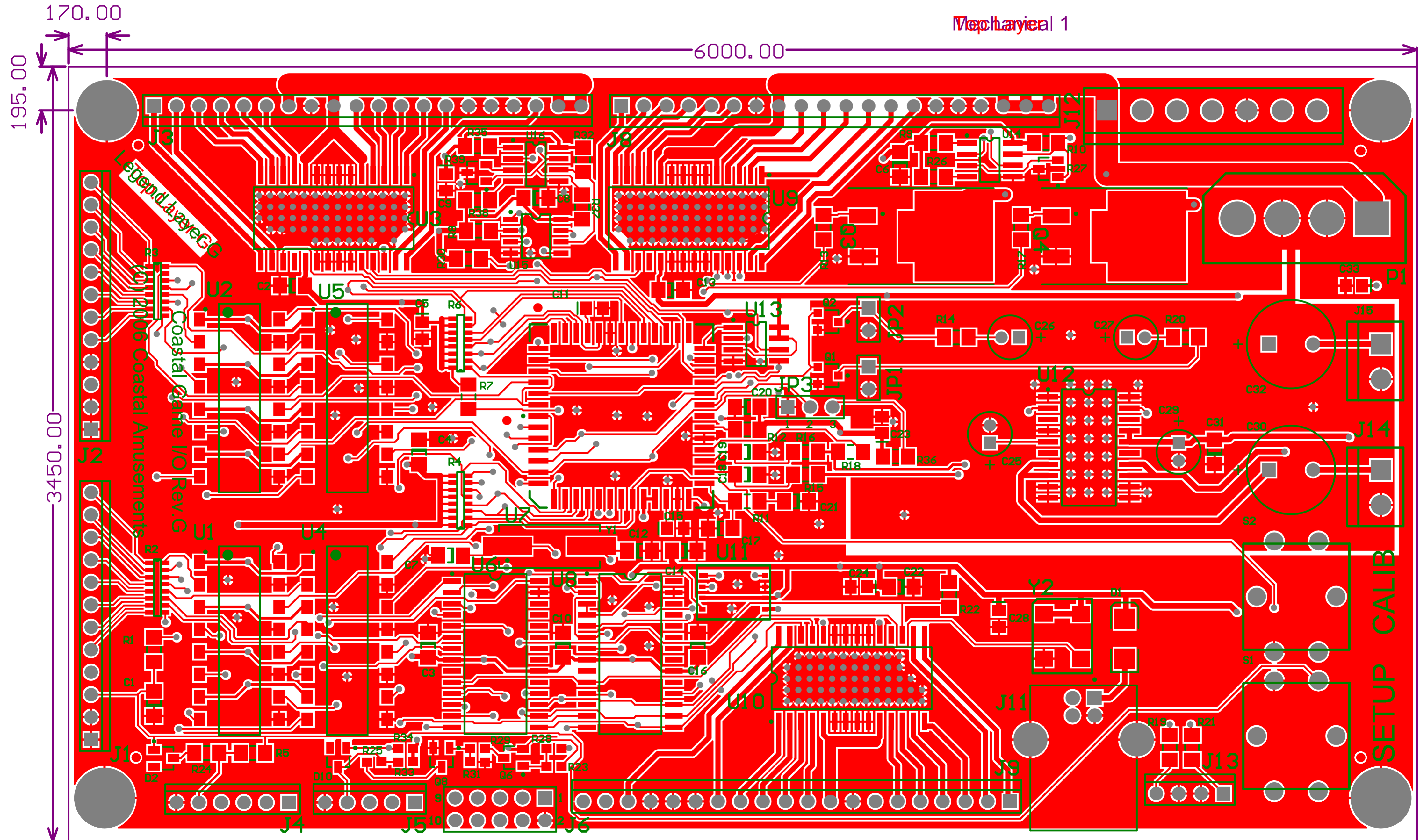
1. PCB is 2 Layer, copper 1 oz. minimum.
Finished Thickness to be .063 inch, +/- .008 inch.
2. Use GFR-4 or Equivalent.
3. Conductor Width is to be no less than .008 inch.
4. Conductor Spacing is to be no less than .006 inch.
5. EING Plating after Solder Mask

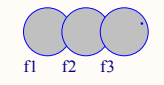
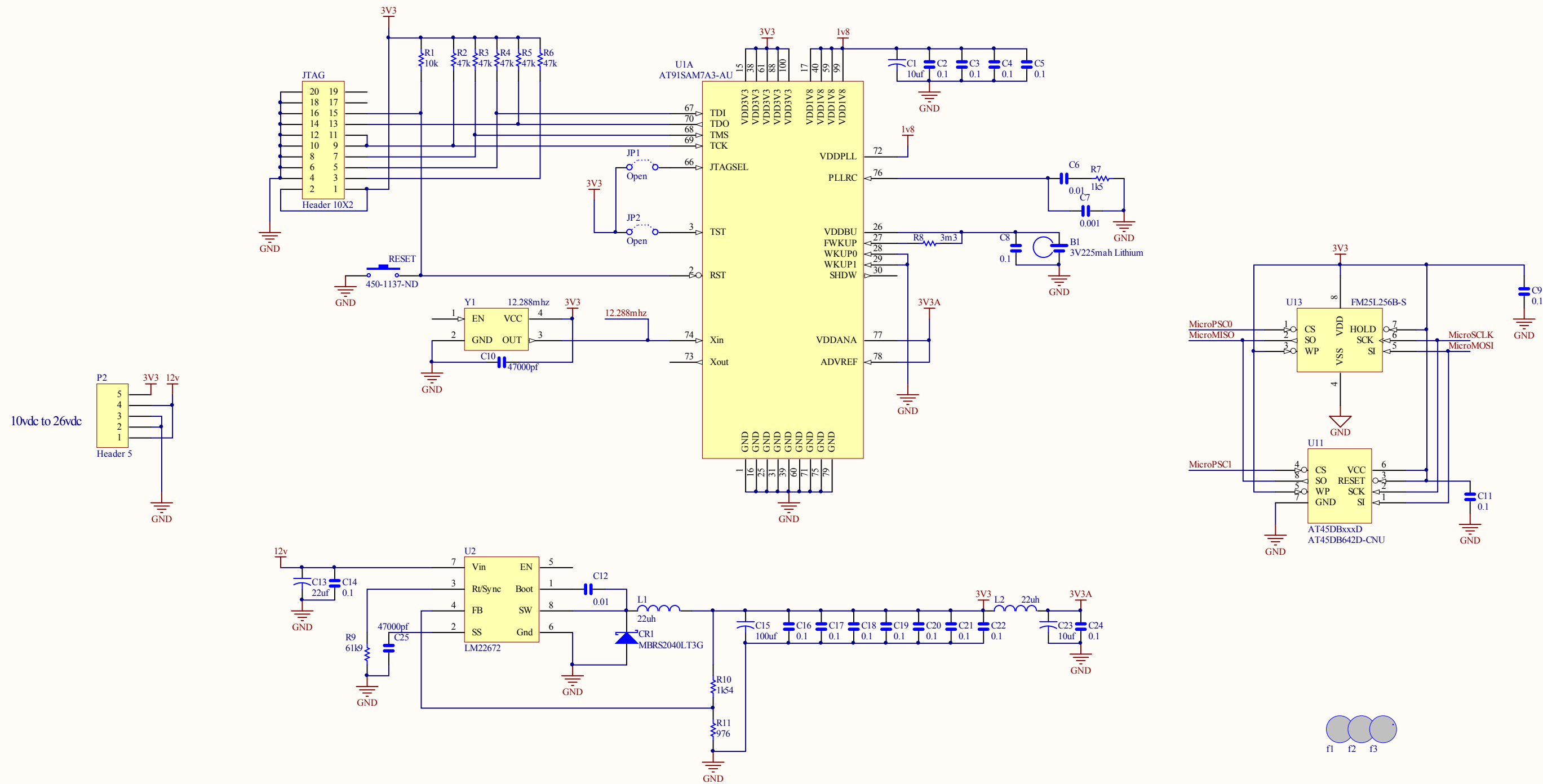
6. Screen Component Side Legend ONLY in WHITE Epoxy.
7. All Hole Sizes are after Plating.
8. Board must be RoHS compatible.

4/19/2008 11:12:27 AM

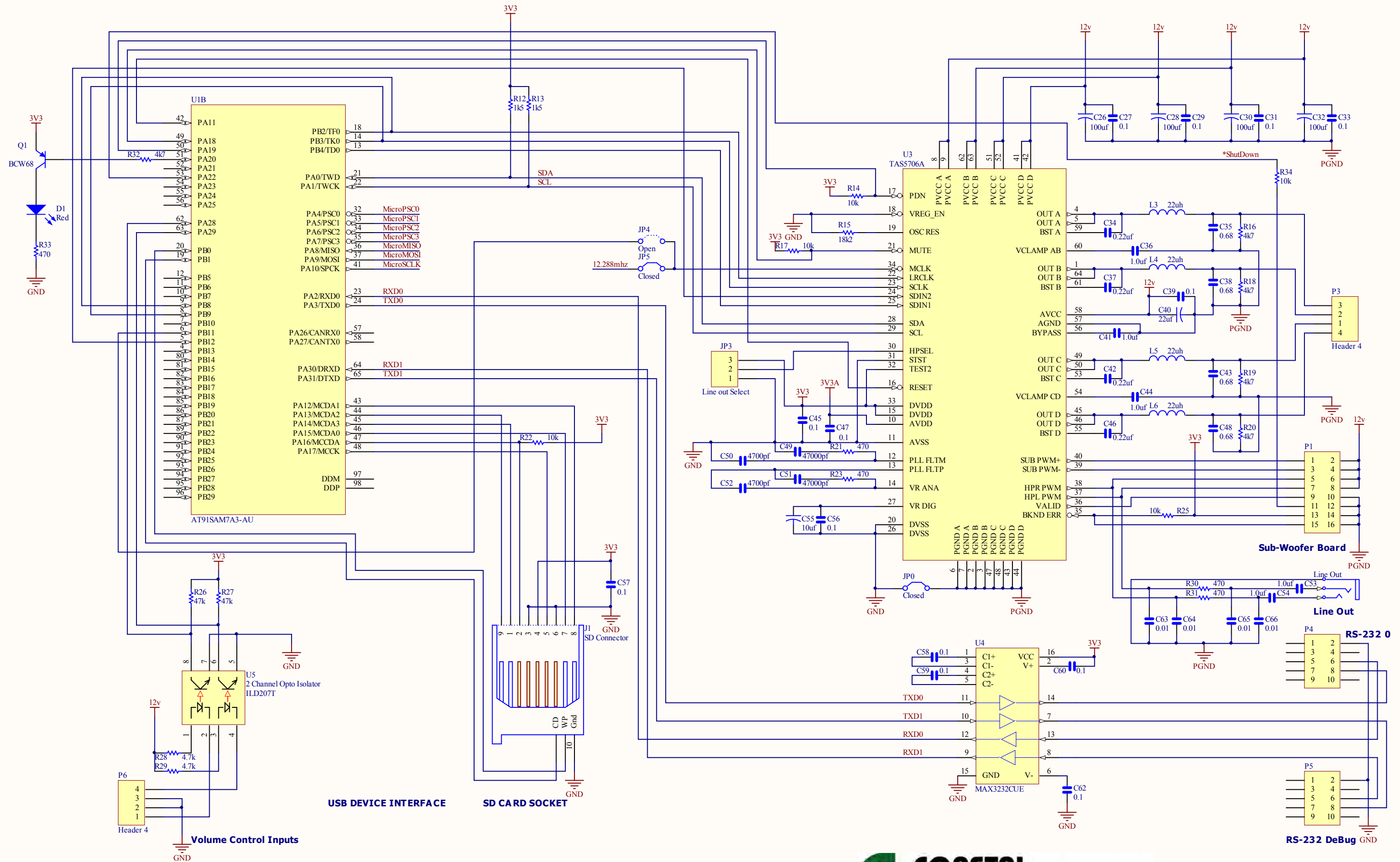
Rev.G

Mechanical 1



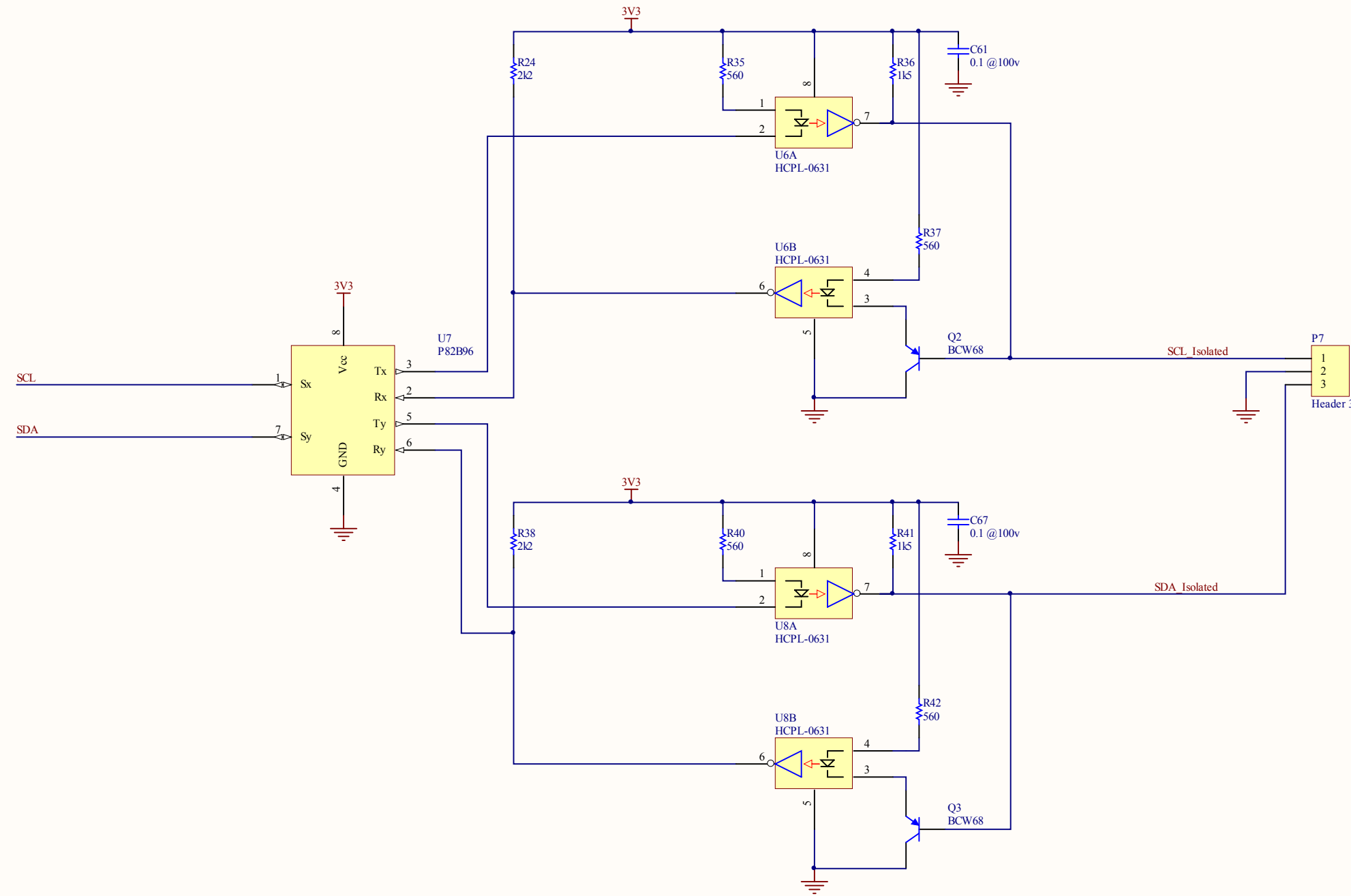


Title CD Quality Sound Board		
Size Tabloid	Number	Revision C
Date: 11/23/2009	Sheet of 1 of 2	
File: C:\Documents and Settings\...Sound Card Pow...Rev B Sch Doc		



"...manufacturers & distributors of coin-op redemption games..."

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Tabloid		C	
Date:	11/23/2009	Sheet of	1 of 1
File:	C:\Documents and Settings\Sound Card Rev 108 Rev 108		



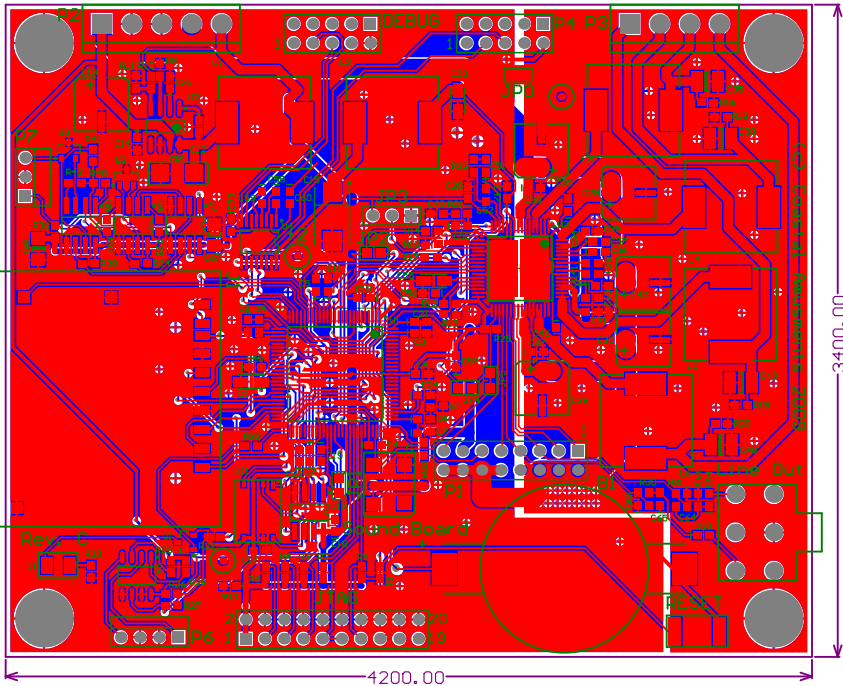
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Sound Board TWI Opto Isolation		
Size	Number	Revision
Tabloid		C
Date:	11/23/2009	Sheet of
File:	C:\Documents and Settings\...Sound Card Twi...SchDoc	

1. PCB is 2 Layer, copper 1 oz. minimum.
Finished Thickness to be .063 inch, +/- .008 inch.
2. There is to be no Solder Mask on the Score Lines.
3. Conductor Width is to be no less than .006 inch.
4. Conductor Spacing is to be no less than .006 inch.
5. There is to be Solder Mask before ENIG

6. Screen Component Side legend ONLY in WHITE Epoxy.
7. All Hole Sizes are after Plating

9:15:30 PM 11/23/2009
Sound Card RevC.PcbDoc

Top Overlay



4200.00

3400.00

Rev: C

Sound: Board

RESET

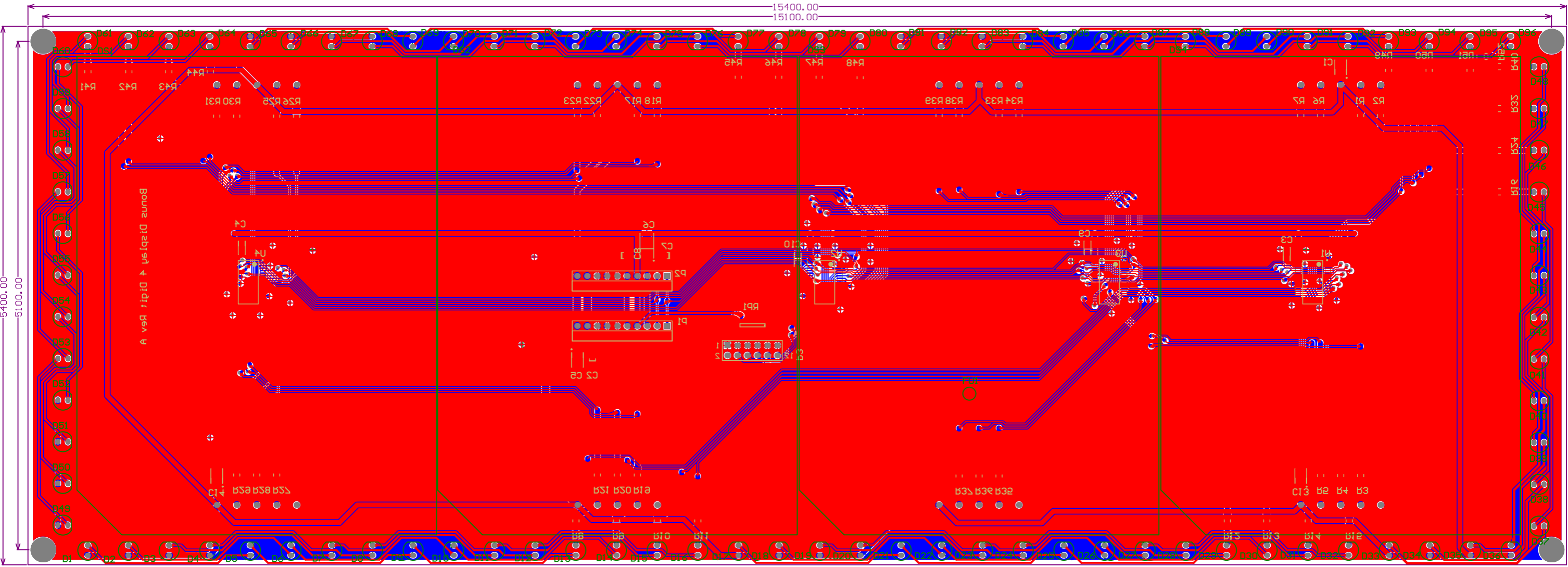
Line Out

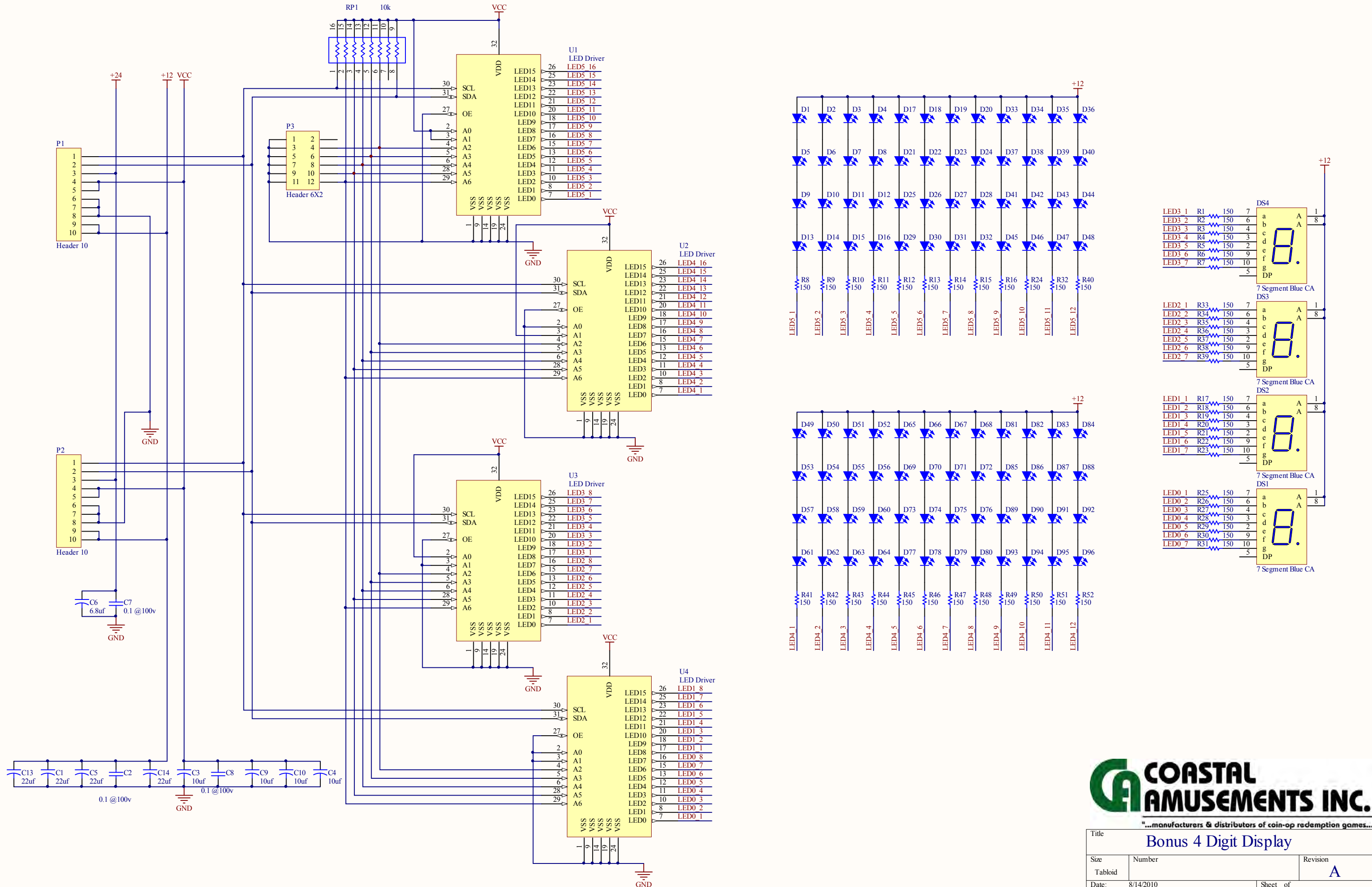
To Purchase This Item, Visit [BM Gaming | www.bmgaming.com](http://www.bmgaming.com) | (800) 746-2255 | +1.561.391.7200

6:24:38 PM 8/14/2010
Bonus Display 4 Digit RevA.PcbDoc

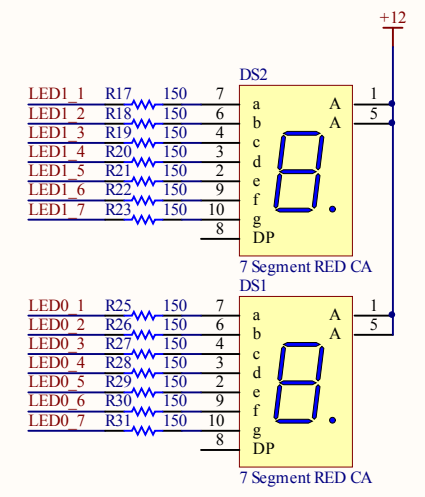
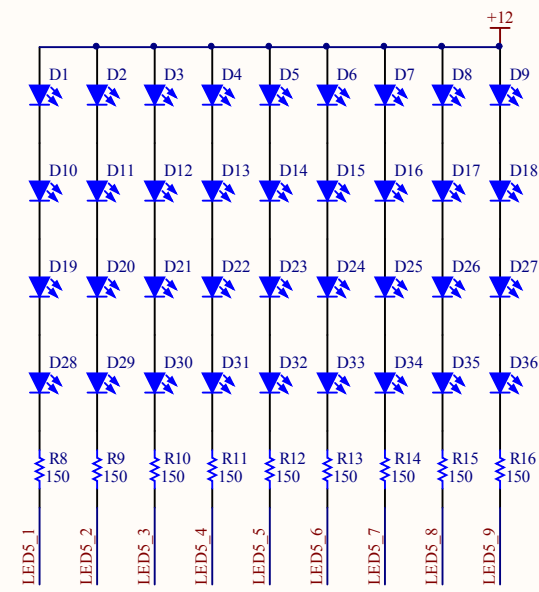
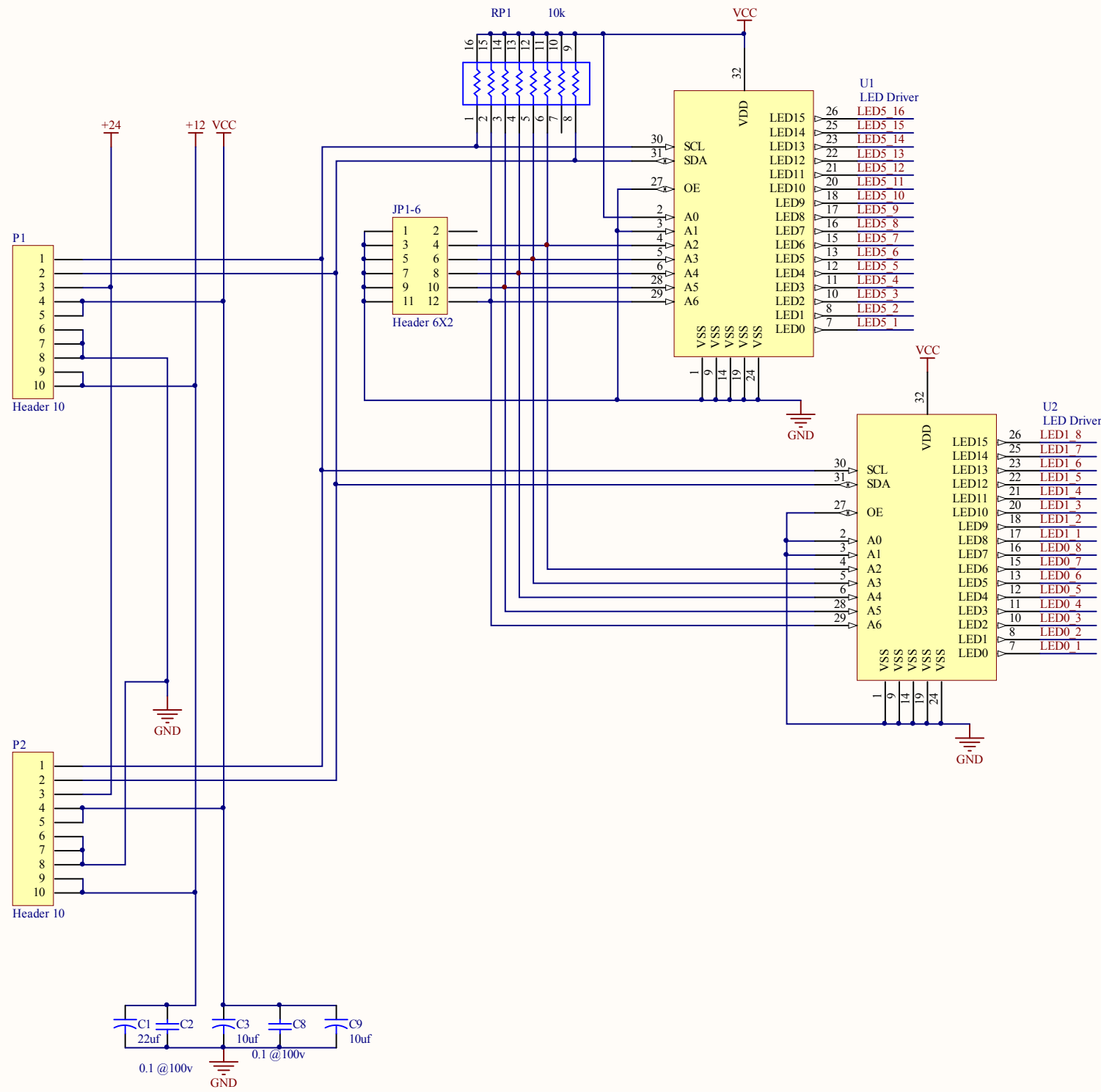
1. PCB is 2 Layer, copper 1 oz. minimum.
2. Finished Thickness to be .003 inch. ±.008 inch.
3. Conductor Width is to be no less than .008 inch.
4. Conductor Spacing is to be no less than .008 inch.
5. There is to be Solder Mask before ENIG

6. Screen Bottom Side Legend ONLY in WHITE Epoxy.
7. All Hole Sizes are after Plating.





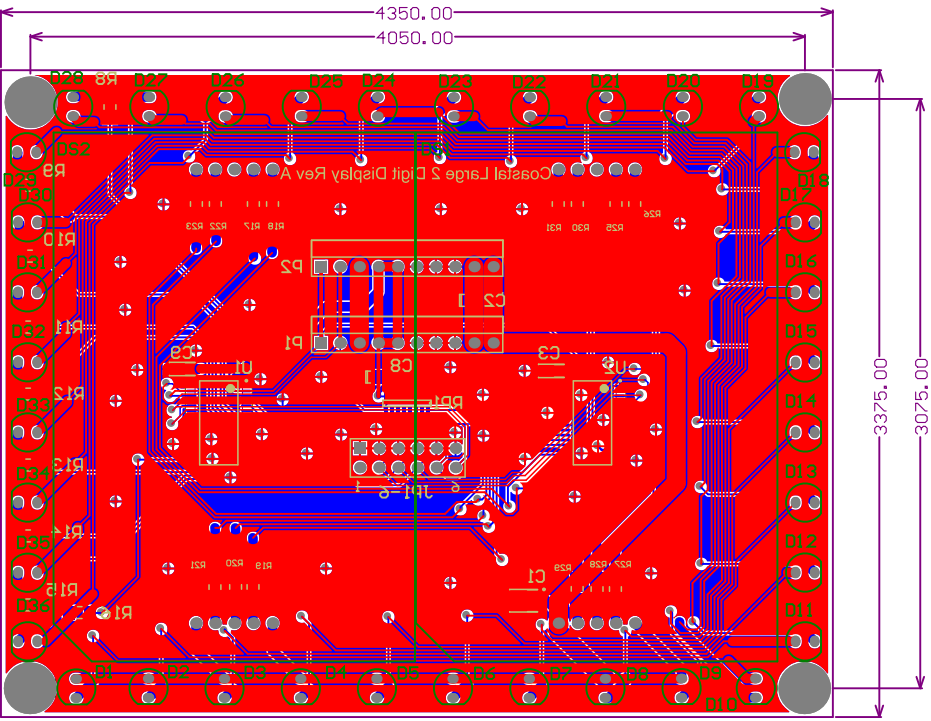
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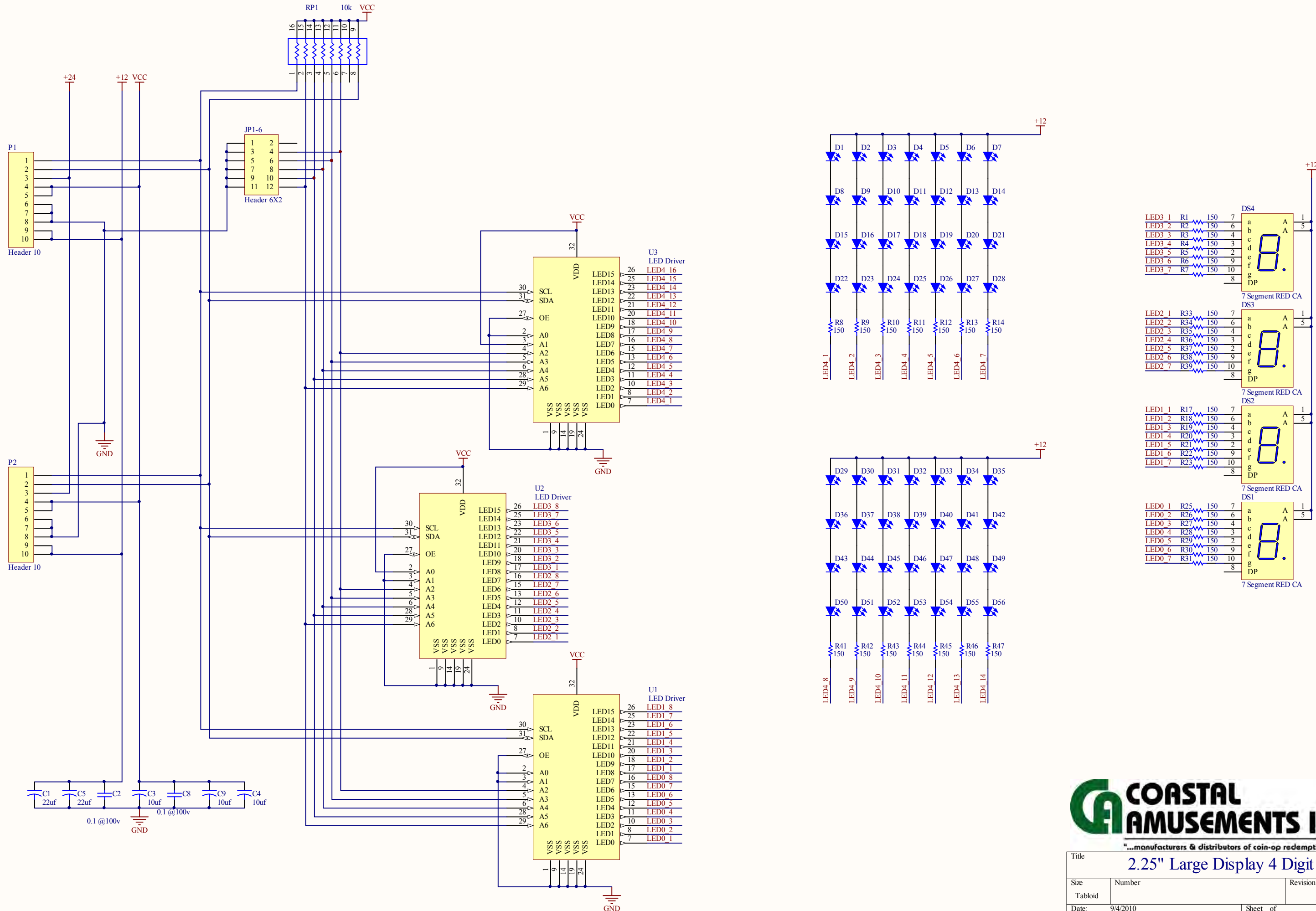


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Size	Number	Revision			
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File:	C:\Documents and Settings\...Large Display 2 Digit Rev A.SchDoc				

- 1. PCB is 2 Layer, copper 1 oz. minimum.
- 2. Finished Thickness to be .063 inch, +/- .008 inch.
- 3. Conductor Width is to be no less than .008 inch.
- 4. Conductor Spacing is to be no less than .008 inch.
- 5. There is to be Solder Mask before ENIG
- 6. Screen Bottom Side Legend ONLY in WHITE Epoxy.
- 7. All Hole Sizes are after Plating.

7:02:40 PM 8/29/2010
Large Display 2 Digit RevA.PcbDoc



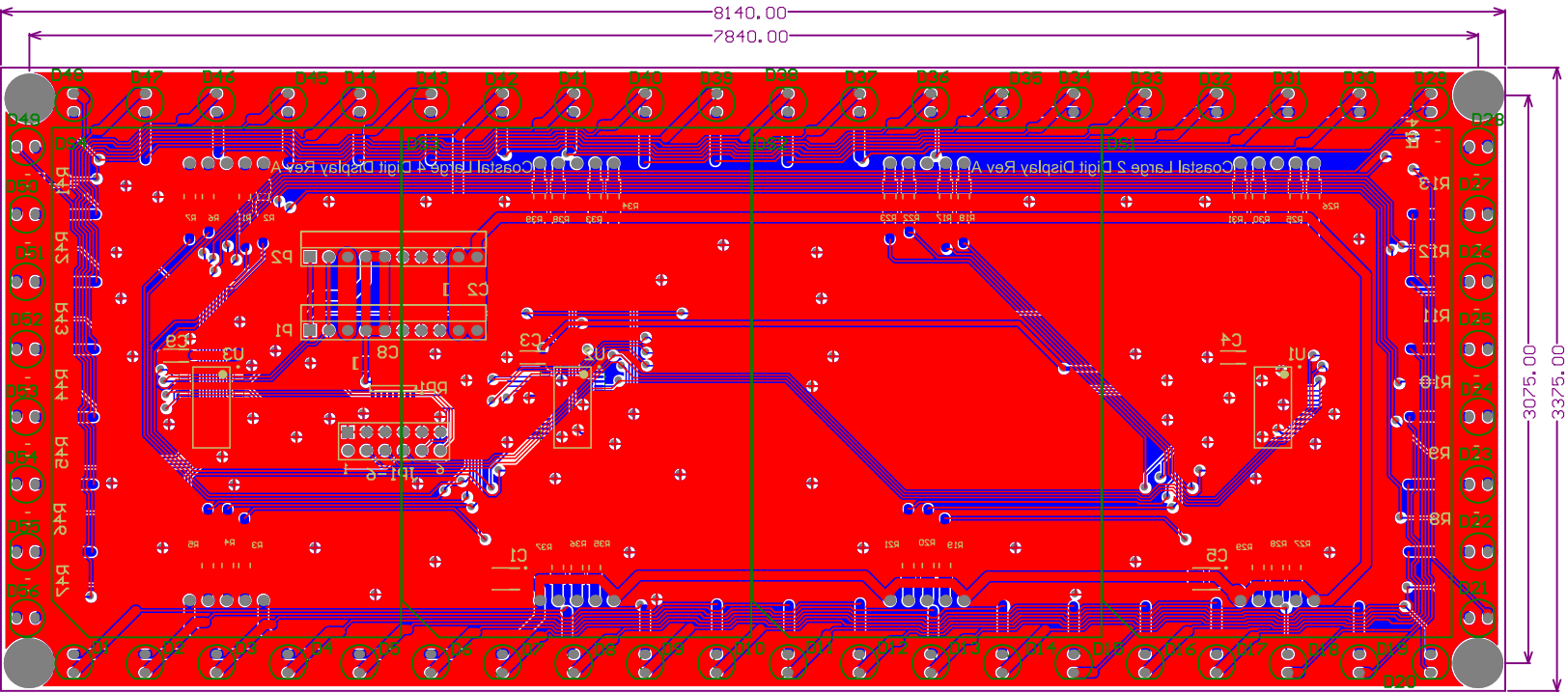


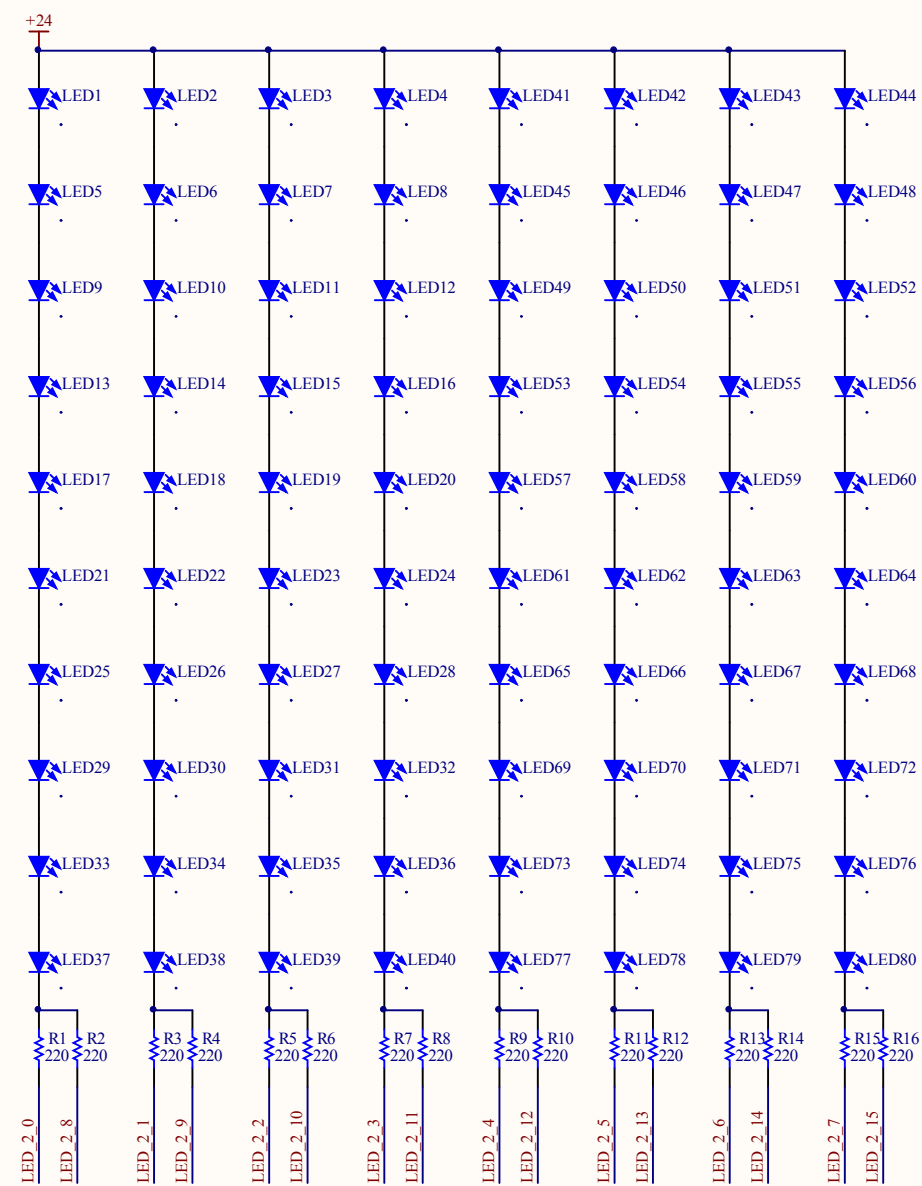
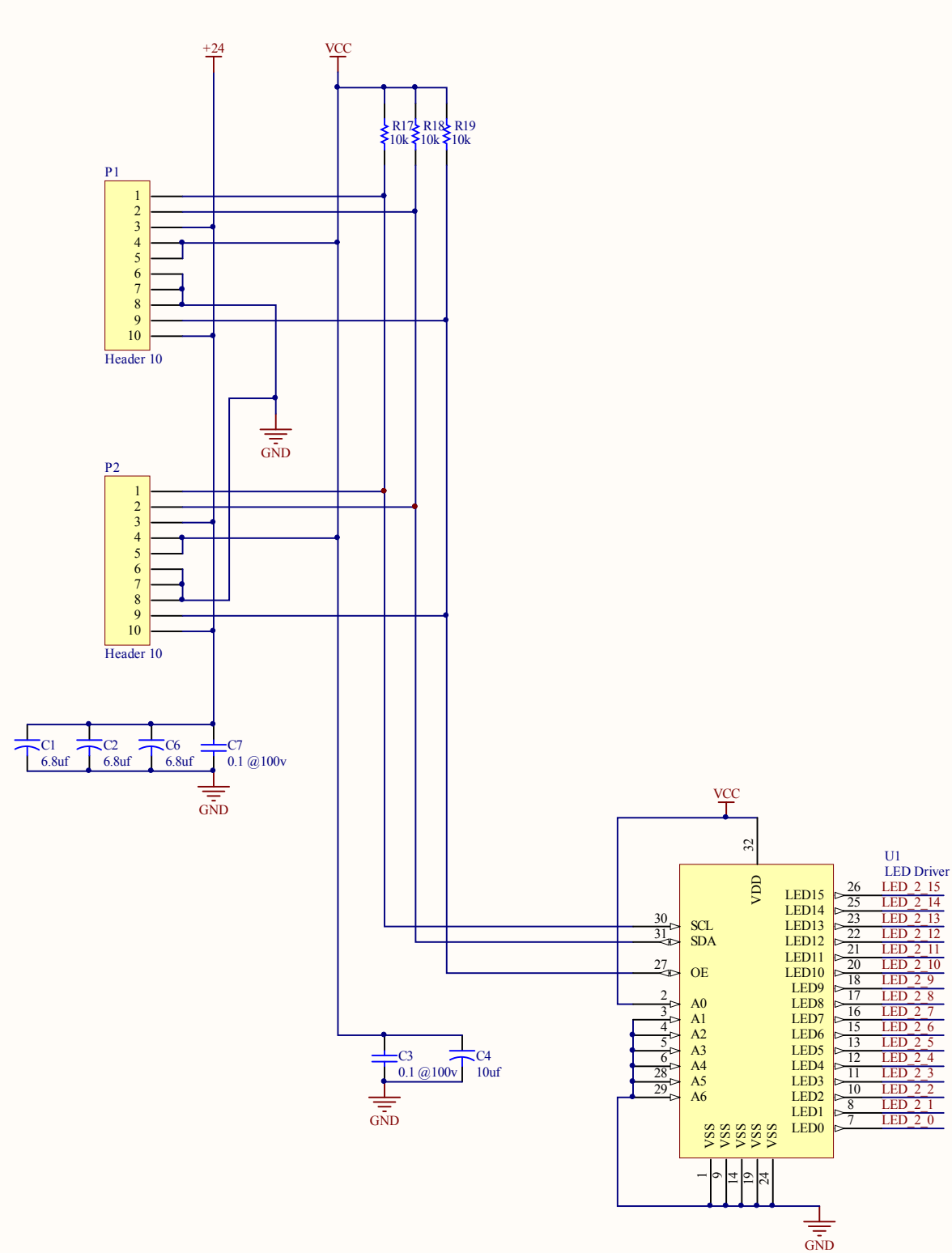
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2.25" Large Display 4 Digit			A		
Size	Number	Revision			
Tabloid					
Date:	9/4/2010	Sheet of	4		
File:	C:\Documents and Settings\...Large Display 4 Digit Rev A.SchDoc				

1. PCB is 2 Layer, copper 1 oz. minimum. Finished Thickness to be .063 inch. +/- .008 inch.
2. Use 18mil thickness prepreg.
3. Conductor Width is to be no less than .008 inch.
4. Conductor Spacing is to be no less than .008 inch.
5. There is to be Solder Mask before ENIG

6. Screen Bottom Side Legend ONLY in WHITE Epoxy.
 7. All Hole Sizes are after Plating.
- 5:55:18 PM 9/4/2010
 Large Display 4 Digit RevA.PcbDoc

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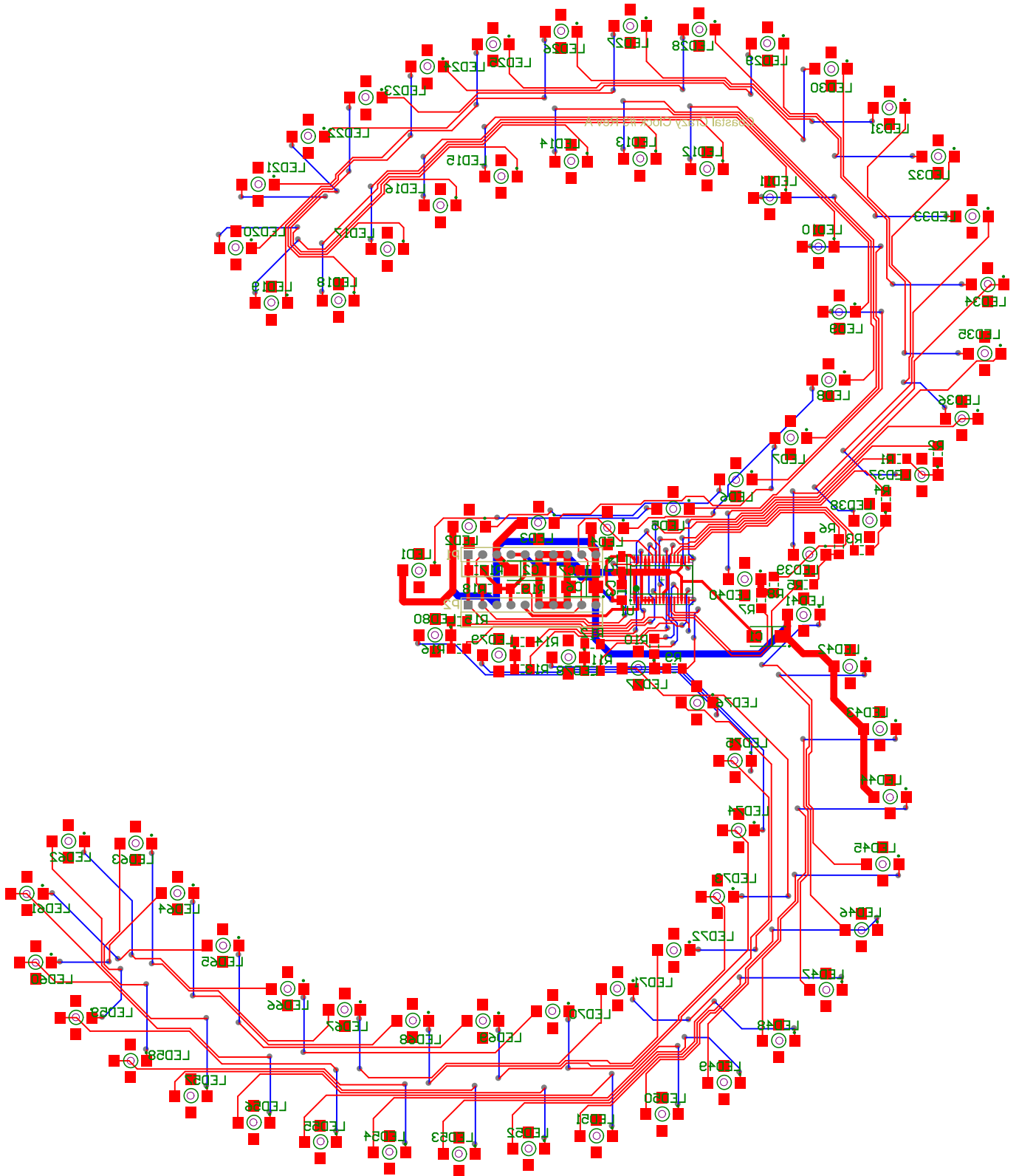
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Size Tabloid	Number	Revision B
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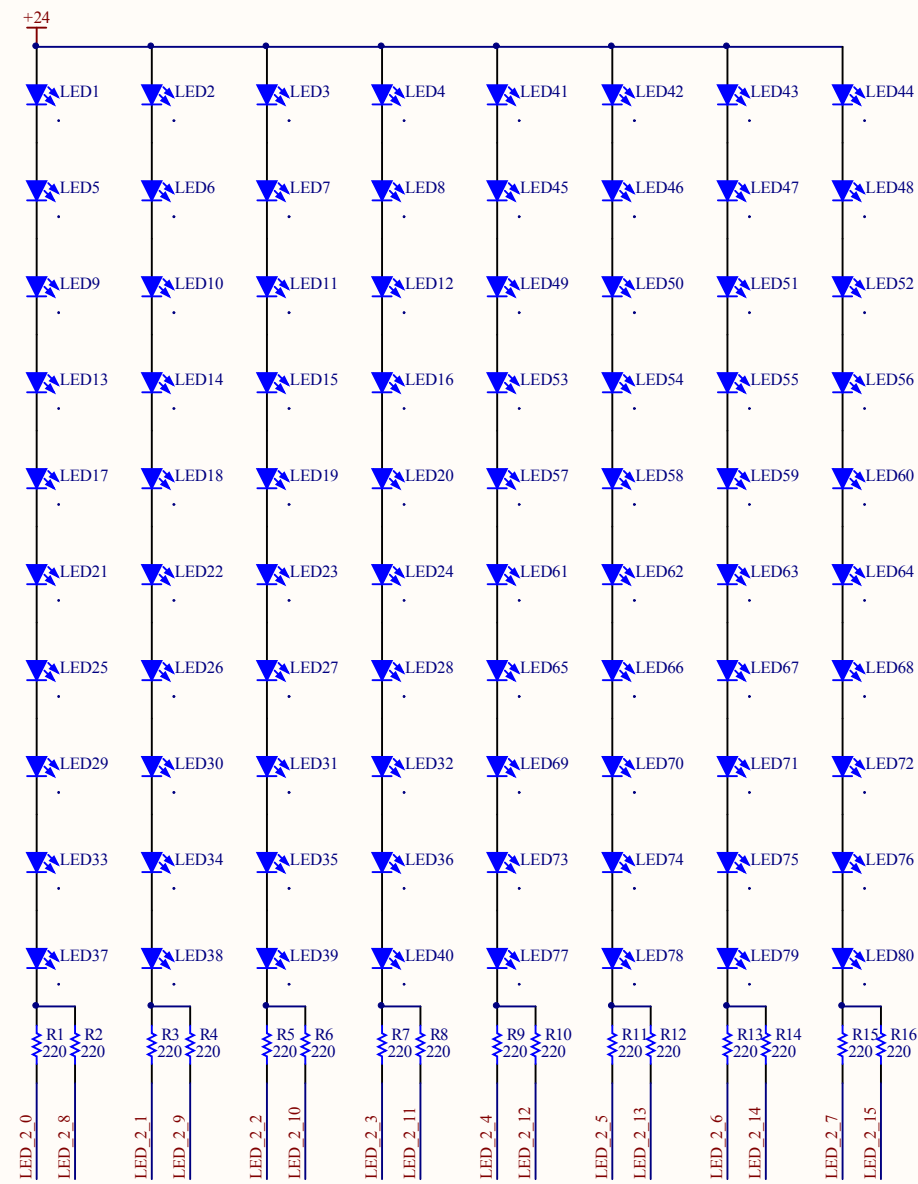
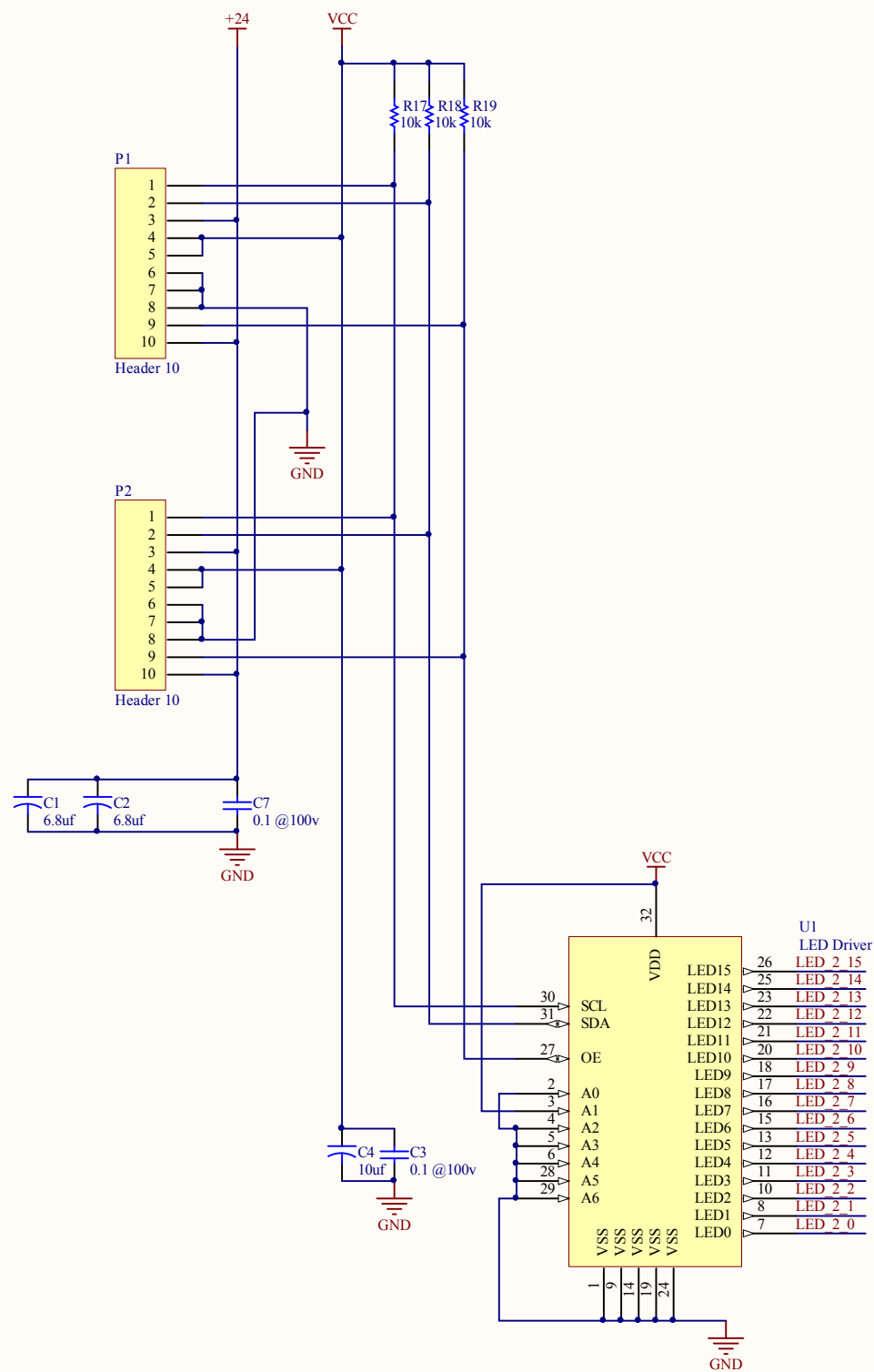
1. PCB is 2 Layer, copper 1 oz. minimum.
2. Finished Thickness to be .063 inch, +/- .008 inch.
3. Conductor Width is to be no less than .008 inch.
4. Conductor Spacing is to be no less than .008 inch.
5. There is to be BLACK Solder Mask before ENIG

6. Screen combined Top and Bottom Side Legend, bottom ONLY in WHITE Epoxy.
7. All Hole Sizes are after Plating.
8. Use DFM file provide to route a tabed outline.
9. Use DXF file provide to route a tabed outline.

Top Overlay

6:57:28 PM 8/21/2010
Clock Number 3 LEDs RevB.PcbDoc



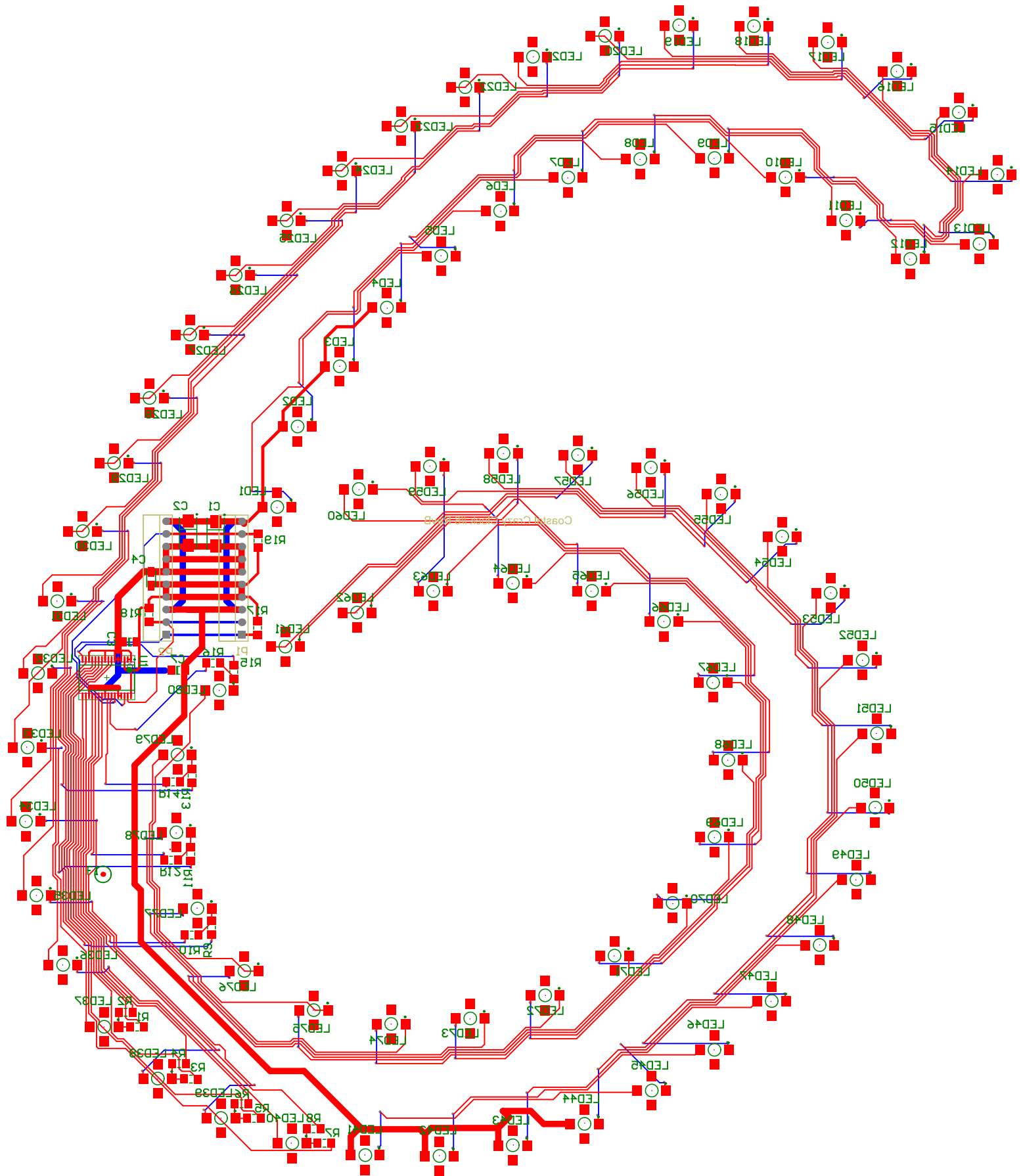


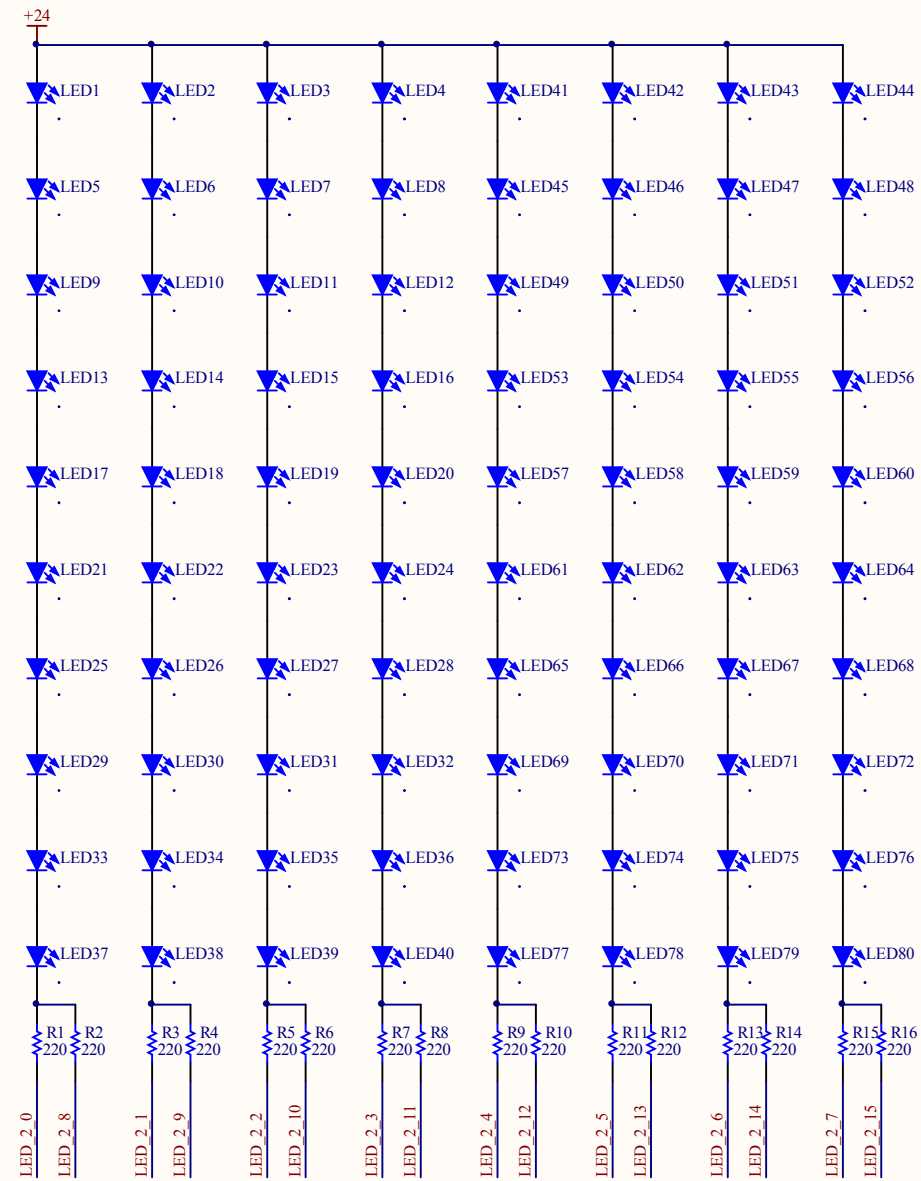
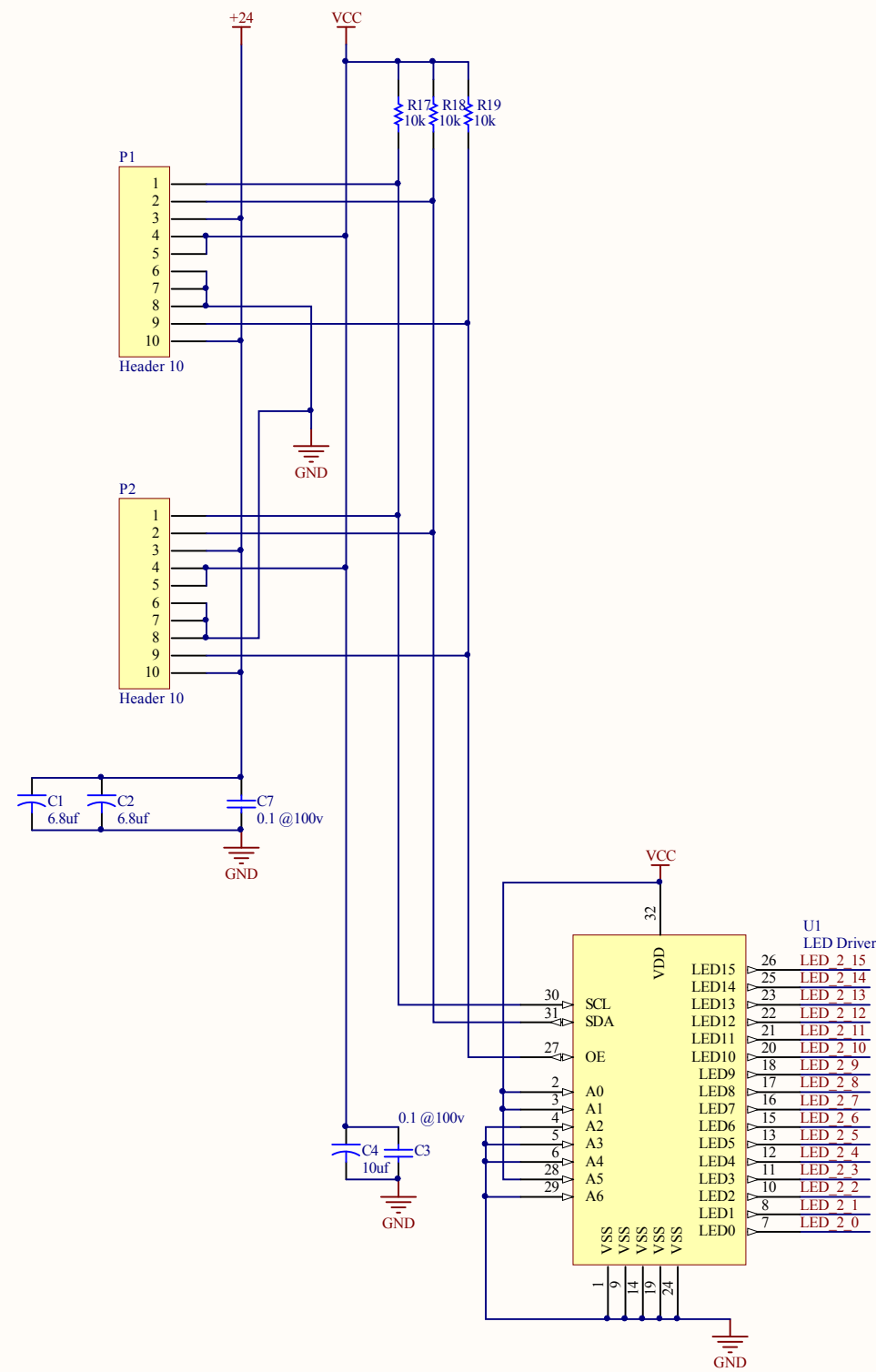
"...manufacturers & distributors of coin-op redemption games..."

Title Clock Number "6" LEDs		
Size Tabloid	Number	Revision B
Date: 9/6/2010	Sheet of	
File: C:\Documents and Settings\... \Clock Number LEDs By B.SchDoc		

1. PCB is 2 Layer, copper 1 oz. minimum.
2. Finished Thickness to be .063 inch, +/- .008 inch.
3. Conductor Width is to be no less than .008 inch.
4. Conductor Spacing is to be no less than .008 inch.
5. There is to be BLACK Solder Mask before ENIG Revision B
6. Screen combined Top and Bottom Side Legend, bottom ONLY in WHITE Epoxy.
7. All Hole Sizes are after Plating.
8. Use DXF file provide to route a tabed outline.
9. Use DXF file provide to route a tabed outline.

5:32:30 PM 9/6/2010
Clock Number 6 LEDs RevB.PcbDoc





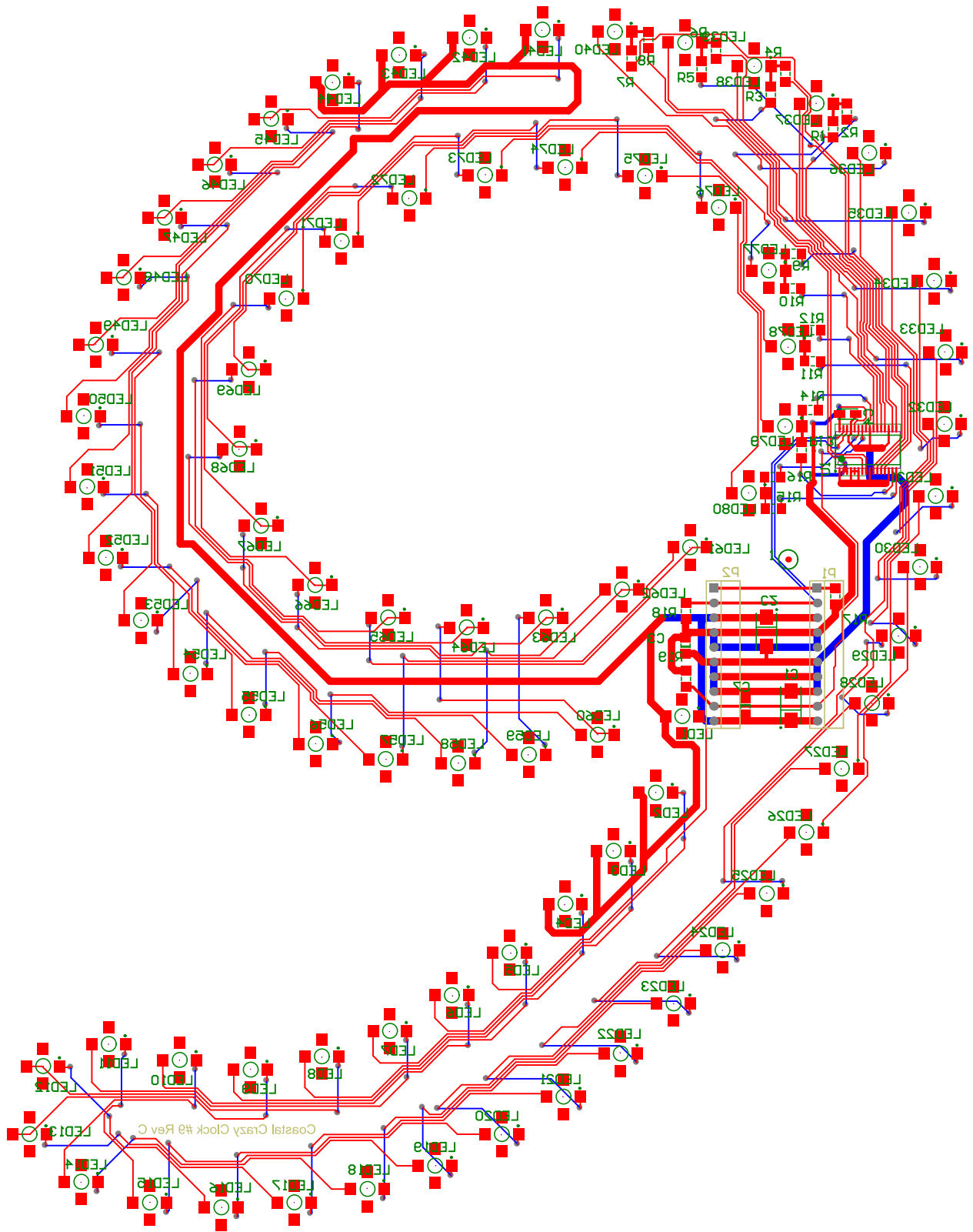
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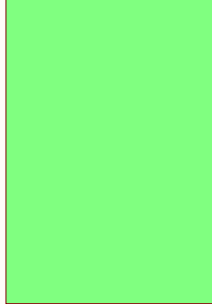
1. PCB is 2 Layer, copper 1 oz. minimum.
2. Finished thickness to be .063 inch, +/- .008 inch.
3. Conductor Width is to be no less than .008 inch.
4. Conductor Spacing is to be no less than .008 inch.
5. There is to be BLACK Solder Mask before ENIG
6. Screen combined Top and Bottom Side Legend, bottom ONLY in WHITE Epoxy.
7. All Hole Sizes are after Plating.
8. Use Gerber file to provide a tabed outline.
9. Use DXF file provide to route a tabed outline.

Top Overlay

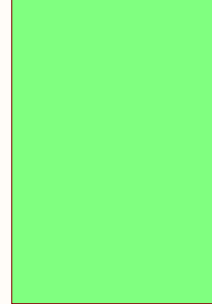
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Clock Number 9 LEDs RevC.PcbDoc



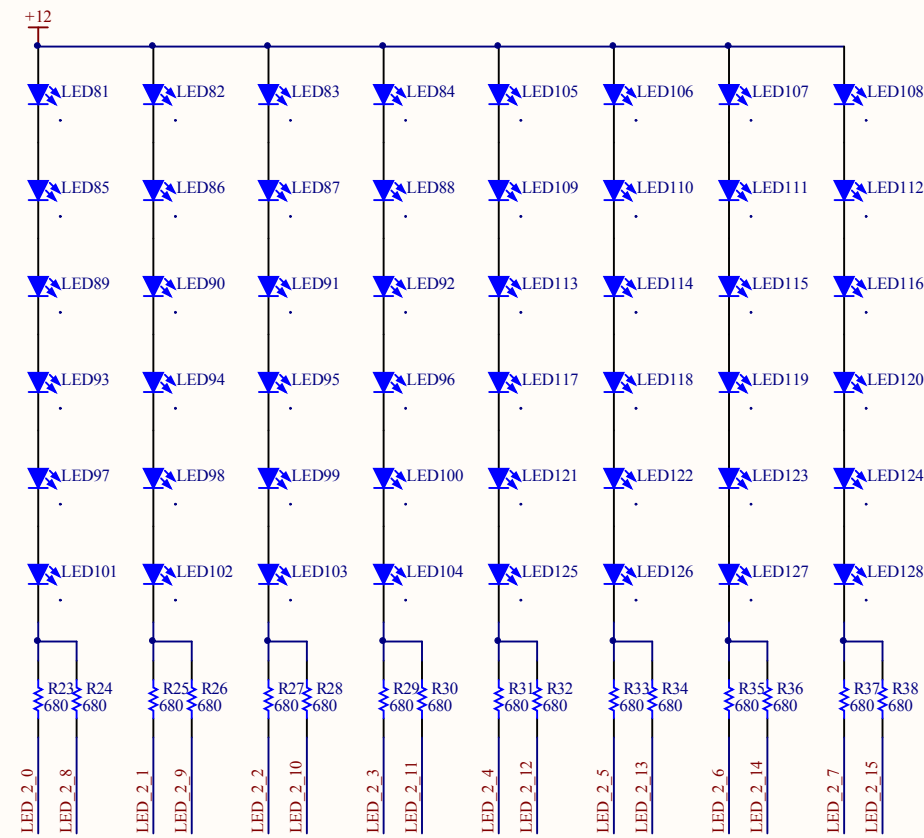
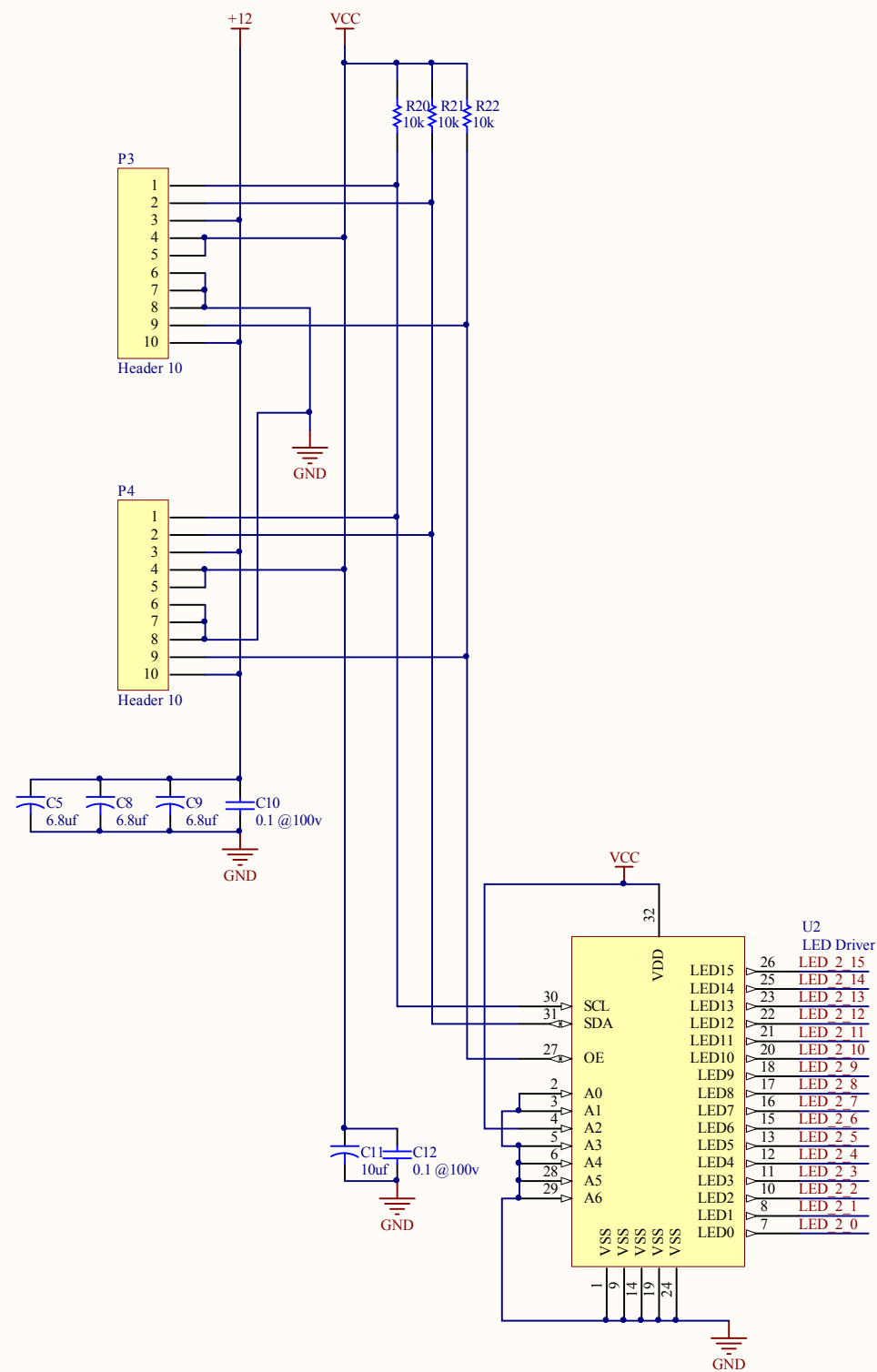
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ClockNumber 12_1 LEDs RevA .SchDoc



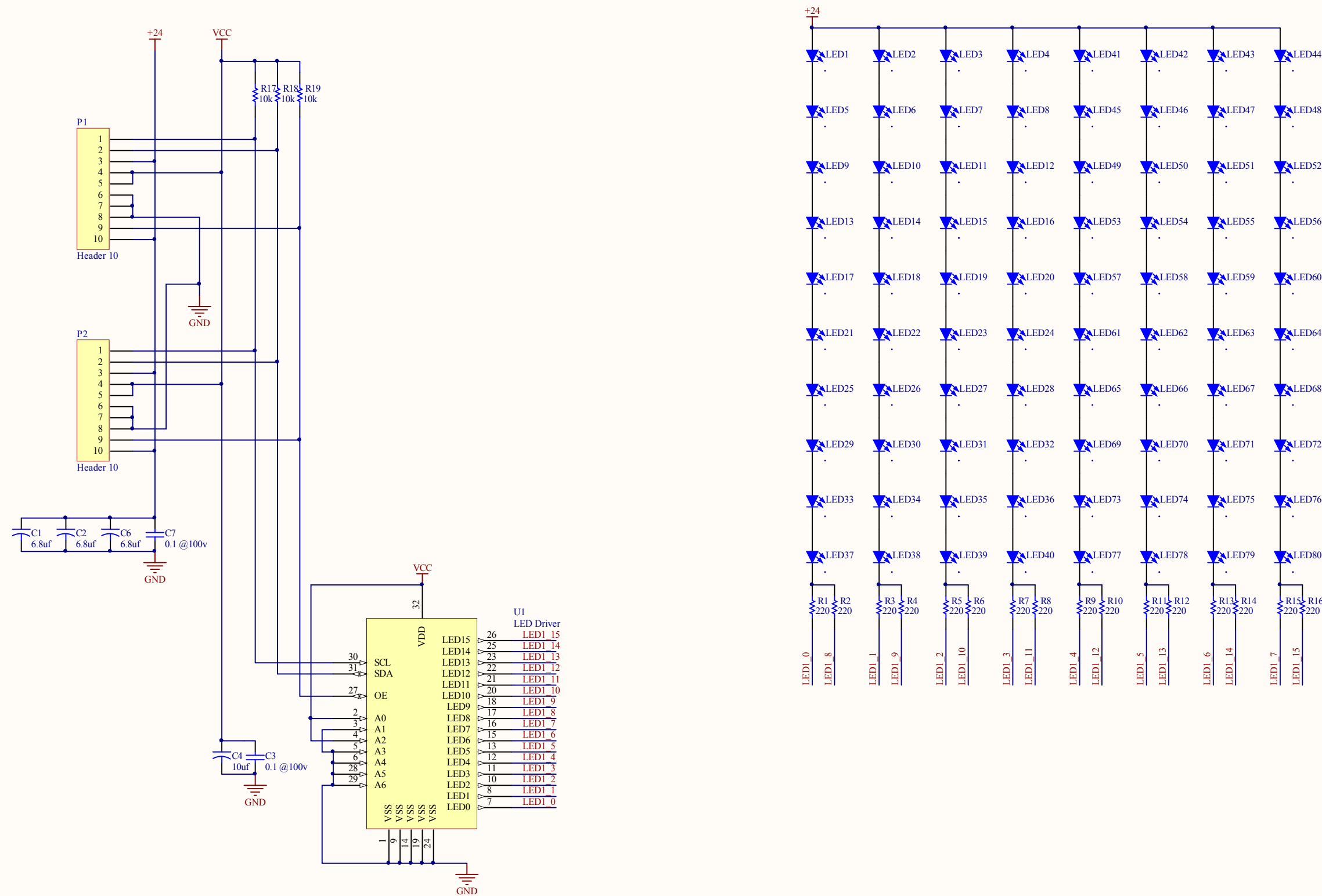
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ClockNumber 12_2 LEDs RevA .SchDoc



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File:	C:\Documents and Settings\... \Clock Number	Drawings\RevB.SchDoc



Title Clock Number "12_1" LEDs		
Size Tabloid	Number	Revision B
Date: 9/12/2010	Sheet of	
File: C:\Documents and Settings\... \Clock Number	Drawings Rev B.SchDoc	



Title Clock Number "12_2" LEDs		
Size Tabloid	Number	Revision B
Date: 9/12/2010	Sheet of	
File: C:\Documents and Settings\... \Clock Number	Drawings Rev B.SchDoc	



- 1. PCB is 2 Layer, copper 1 oz. minimum.
- 2. Finished Thickness to be .063 inch. +/- .008 inch.
- 3. Conductor Width is to be no less than .008 inch.
- 4. Conductor Spacing is to be no less than .008 inch.
- 5. There is to be BLACK Solder Mask before ENIG
- 6. Screen combined Top and Bottom Side Legend, bottom ONLY in WHITE Epoxy.
- 7. All Hole Sizes are after Plating.
- 8. Use DFM file to provide a tabed outline.
- 9. Use DXF file provide to route a tabed outline.

5:41:18 PM 9/12/2010
Clock Number 12 LEDs RevB.PcbDoc

