

A

B

C

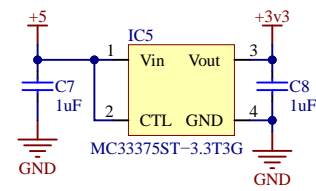
D

A

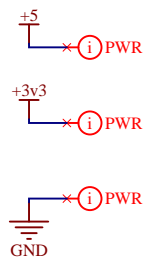
B

C

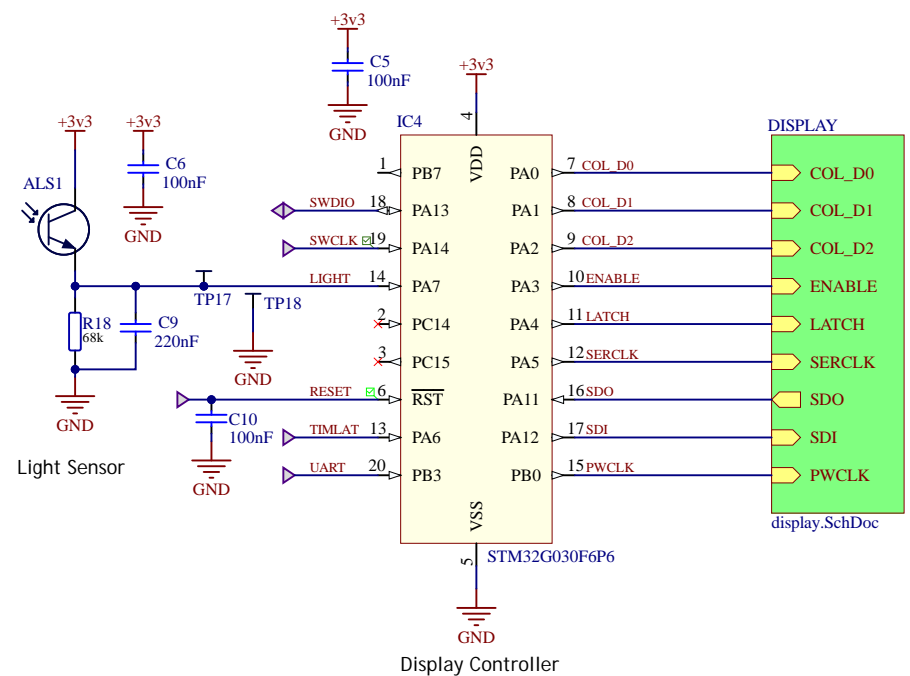
D



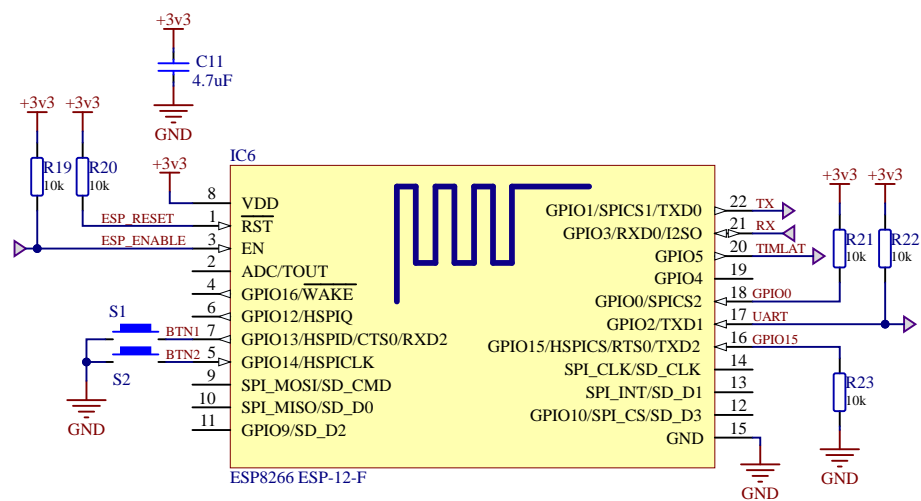
3v3 LDO



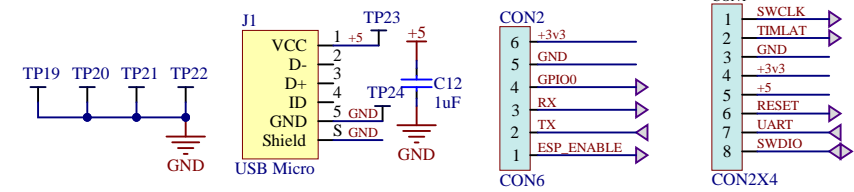
Net Classes



Display Controller

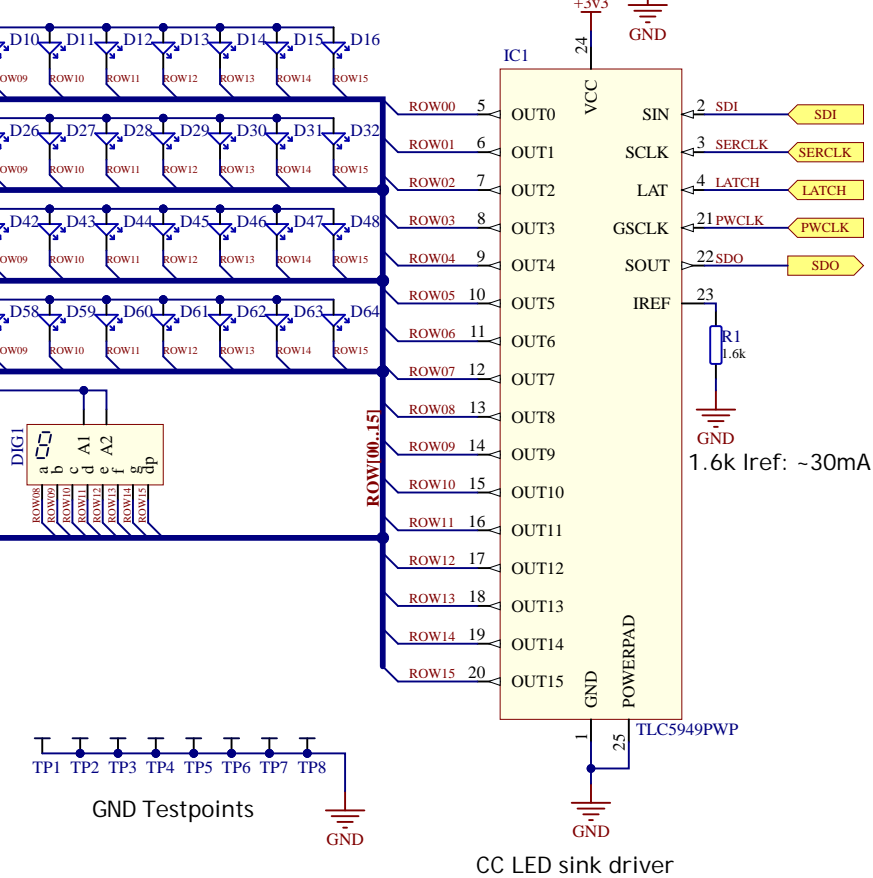
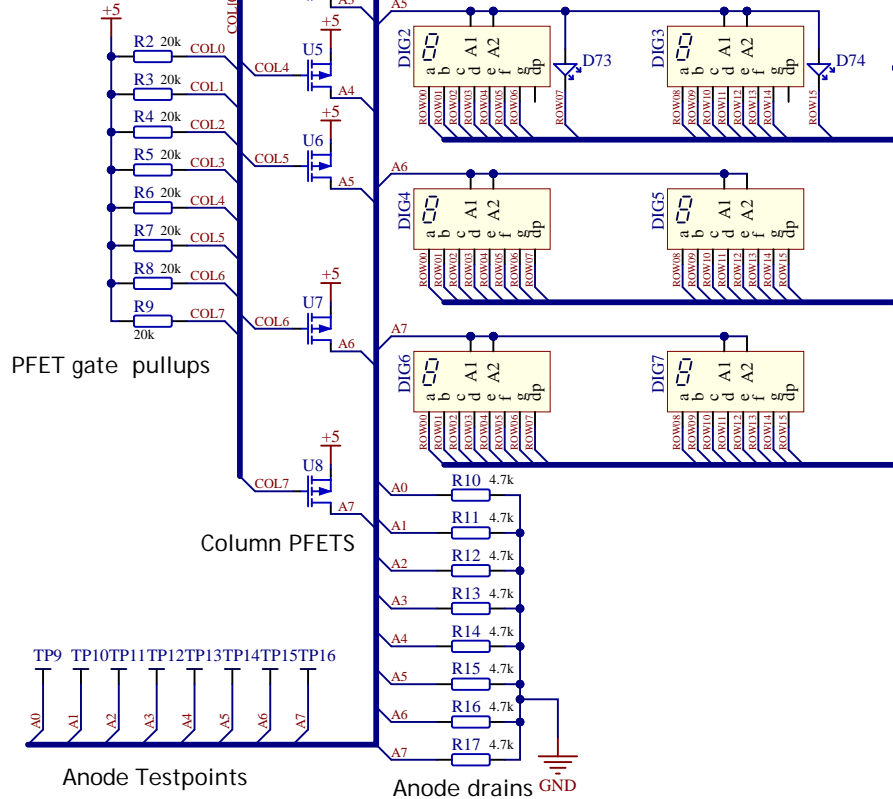
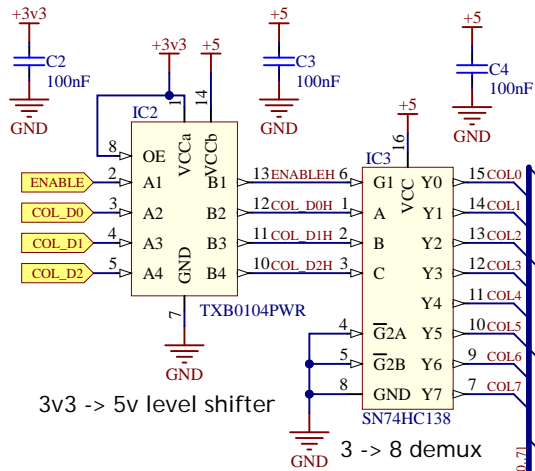


ESP8266 E12F



Connectors

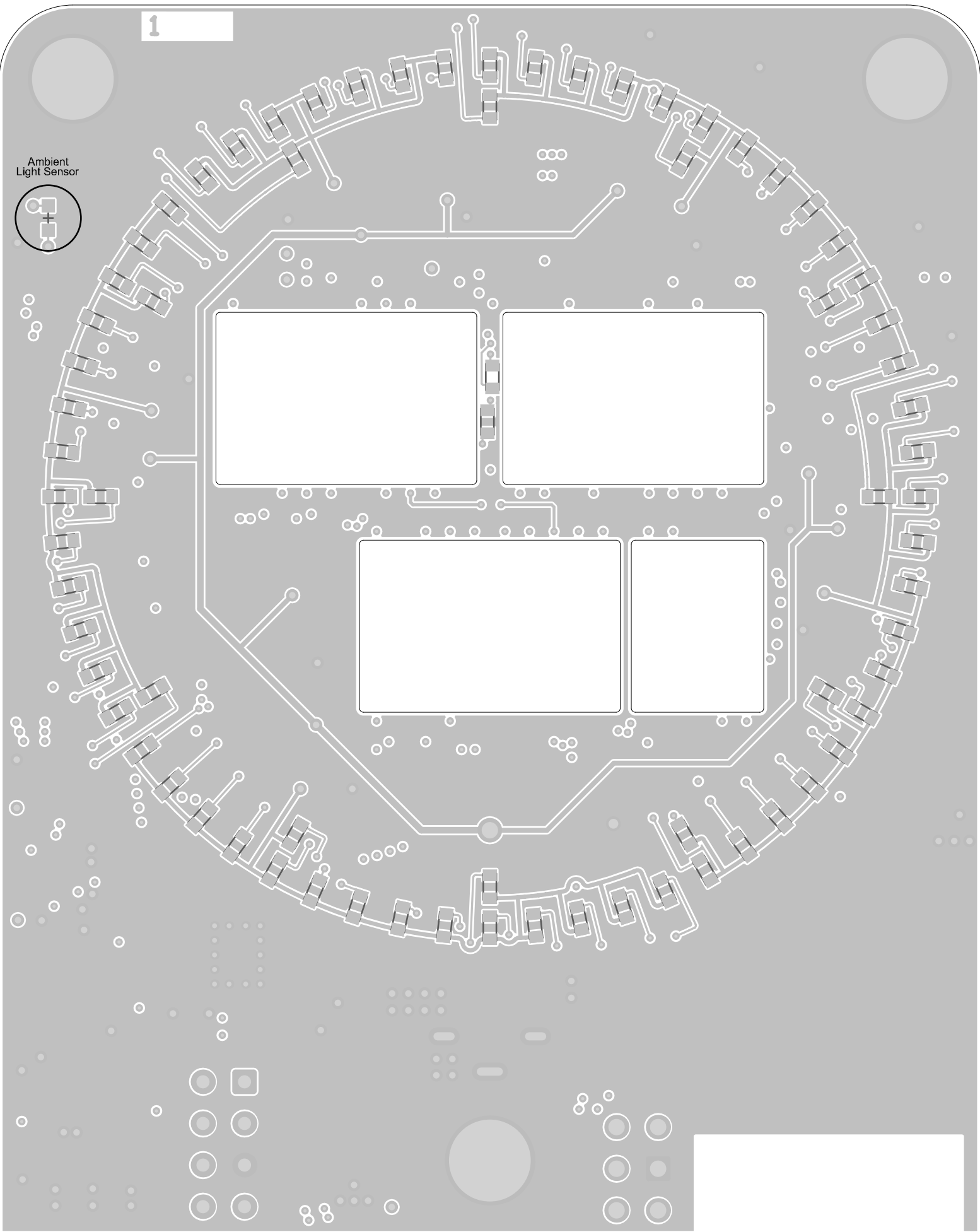
Title			
Clock			
Size	Number	Revision	
A4			
Date:	10/29/2020	Sheet of	
File:	C:\Dev\clock\clock.SchDoc	Drawn By:	



Title Display Driver		
Size A4	Number	Revision
Date: 10/29/2020	Sheet of	
File: C:\Dev\clock\display.SchDoc	Drawn By:	

1

Ambient
Light Sensor

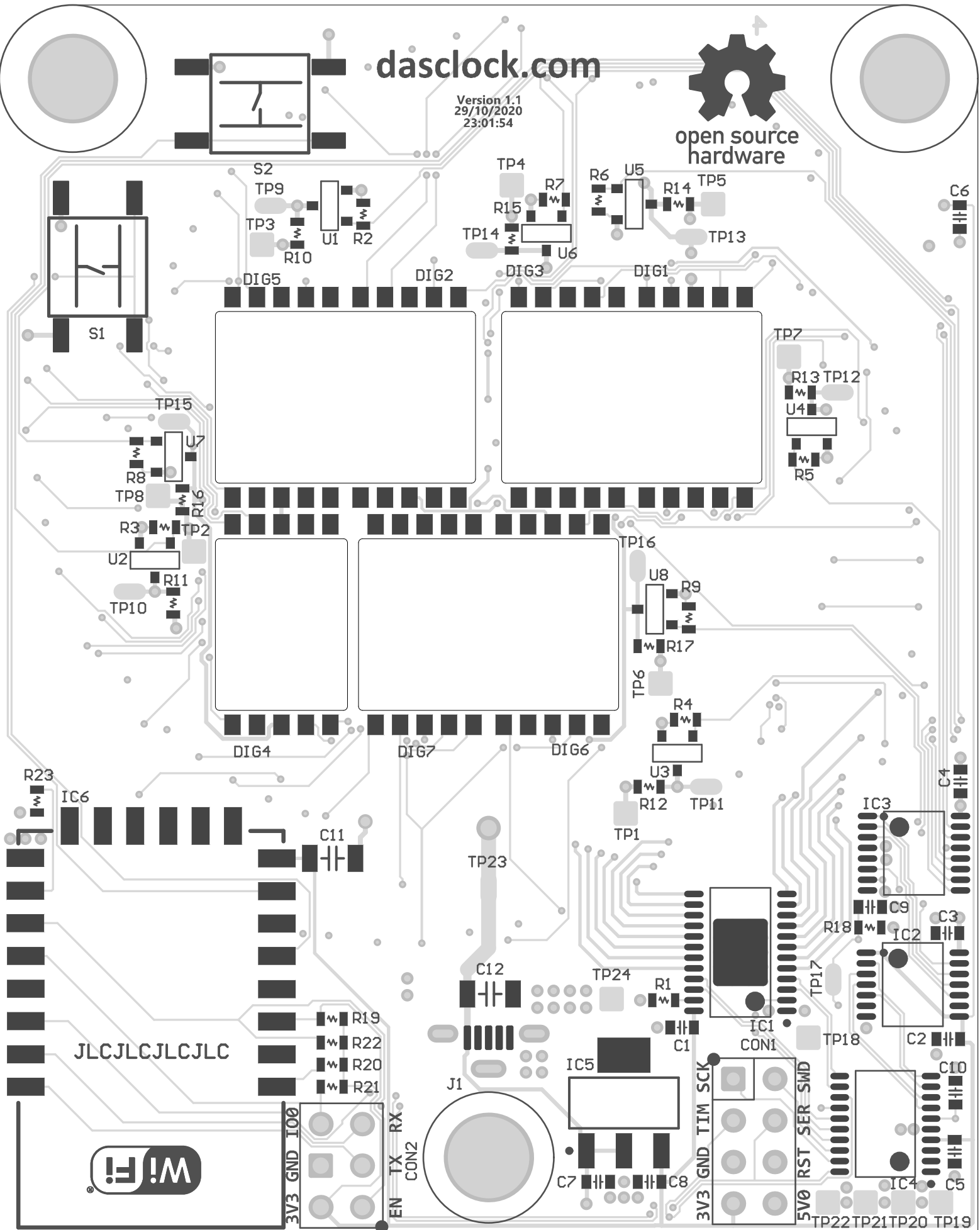


dasclock.com

Version 1.1
29/10/2020
23:01:54



open source
hardware



Designator	Value	Quantity	Name	Footprint	Description
ALS1		1	PHOTOTRANSISTOR	ALS-PT19-315C	Photo transistor
C1-C6, C10	100nF	7	Cap	CAPC_0603_1608X08L	Capacitor
C7, C8	1uF	2	Cap	CAPC_0603_1608X08L	Capacitor
C9	220nF	1	Cap	CAPC_0603_1608X08L	Capacitor
C11	4.7uF	1	Cap	CAPC_1206_3216X16L	Capacitor
C12	1uF	1	Cap	CAPC_1206_3216X16L	Capacitor
D1-D74		74	LED	0603 Chip SMD LED	Red 0603 SMD LED
DIG1-DIG7		7	KCSA03-105	KCSA03105	Low profile 7 segment digit
IC1		1	TLC5949PWP	TSOP65P640X120-24L - POWERPAD	16 channel cc sink led driver
IC2		1	TXB0104PWR	TSOP65P640X120-14L	4 channel level shifter
IC3		1	SN74HC138	TSOP65P640X110-16L	3 -> 8 demux
IC4		1	STM32G030F6P6	TSOP65P630X120-20L	MCU 64MHz tssop20
IC5		1	MC33375ST-3.3T3G	SOT230P700X180-4N	3.3v LDO
IC6		1	ESP8266 ESP-12-F	ESP8266 ESP-12-E	ESP8266 ESP-12-F
J1		1	USB Micro	USB 1051330011	USB 2.0 Type B Micro vertical SMT
R1	1.6k	1	RES0603	RESC1608X03L	Chip Resistor
R2-R9	20k	8	RES0603	RESC1608X03L	Chip Resistor
R10-R17	4.7k	8	RES0603	RESC1608X03L	Chip Resistor
R18	68k	1	RES0603	RESC1608X03L	Chip Resistor
R19-R23	10k	5	RES0603	RESC1608X03L	Chip Resistor
S1, S2		2	4-1437565-1	FSM-SWITCH	6x6mm SMD tactile switch,SPST-NO
U1-U8		8	MOSFET-P	SOT95P230X110-3L	P channel mosfet 1.2A

Design Rules Verification Report

Filename : C:\Dev\clock\clock.PcbDoc

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=7.874mil) (InComponentClass('LED_DIGIT') AND False),(OnLayer('Multi-Layer'))	0
Clearance Constraint (Gap=4mil) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint (All)	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=5mil) (Max = 71497.938mil) (Preferred=8mil) (All)	0
Routing Layers(All)	0
Routing Layers(TouchesRoom('BOTTOM_GND'))	0
Power Plane Connect Rule(Relief Connect)(Expansion=11.811mil) (Conductor Width=4mil) (Air Gap=4mil) (Entries=4)	0
Power Plane Connect Rule(Direct Connect)(Expansion=20mil) (Conductor Width=10mil) (Air Gap=10mil) (Entries=4)	0
Minimum Annular Ring (Minimum=5.118mil) (All)	0
Hole Size Constraint (Min=7.874mil) (Max = 248.031mil) (All)	0
Hole To Hole Clearance (Gap=9.842mil) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0mil) (All),(All)	0
Silk To Solder Mask (Clearance=4mil) (False),(All)	0
Net Antennae (Tolerance=0mil) (False)	0
Board Clearance Constraint (Gap=0mil) (OnLayer('Top Copper') Or OnLayer('Bottom Copper') Or OnLayer('Signal Layer	0
Component Clearance Constraint (Horizontal Gap = 3.937mil, Vertical Gap = 0mil) (All),(All)	0
Height Constraint (Min=0mil) (Max = 71497.938mil) (Preferred=500mil) (All)	0
Total	0