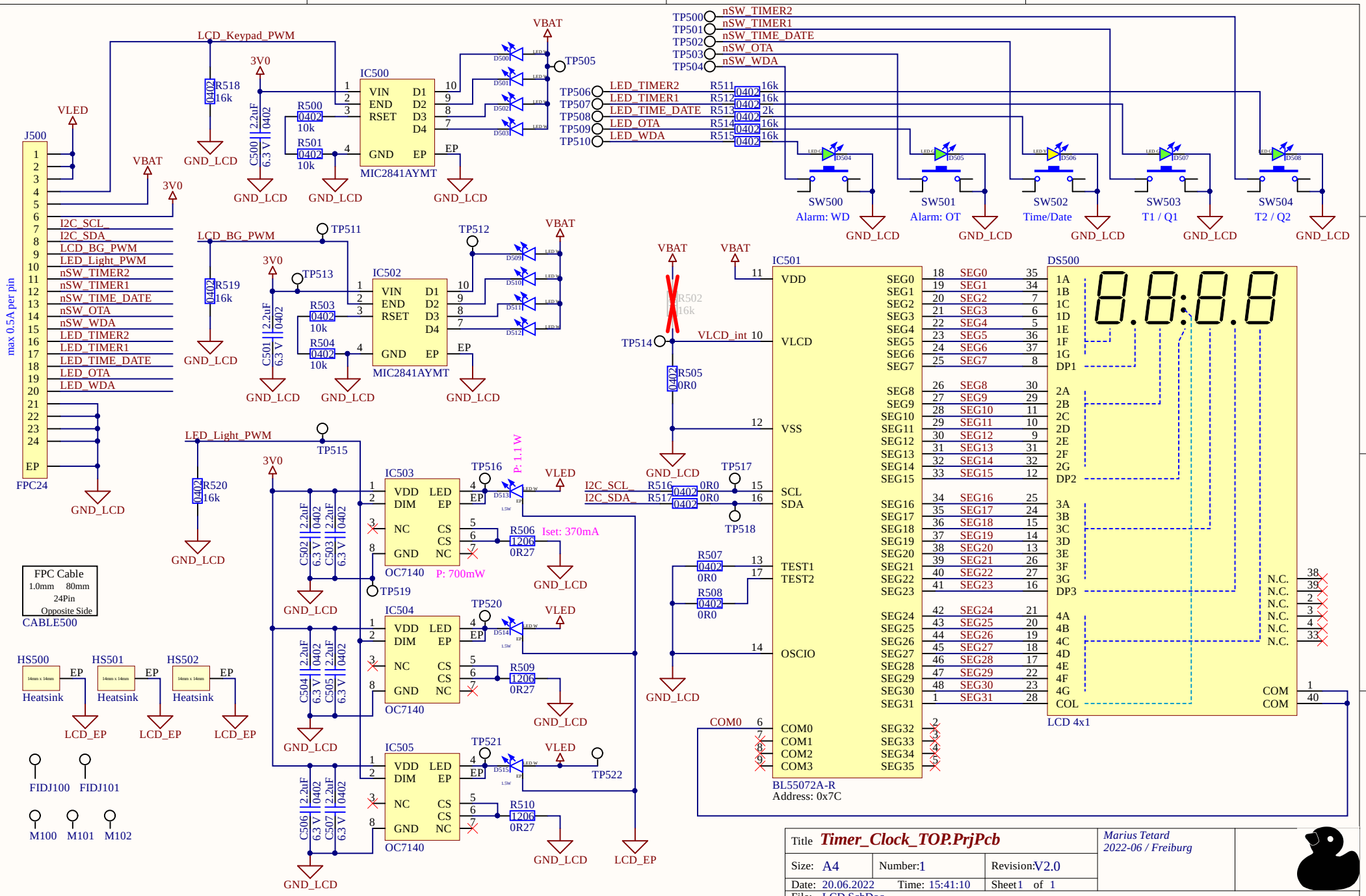
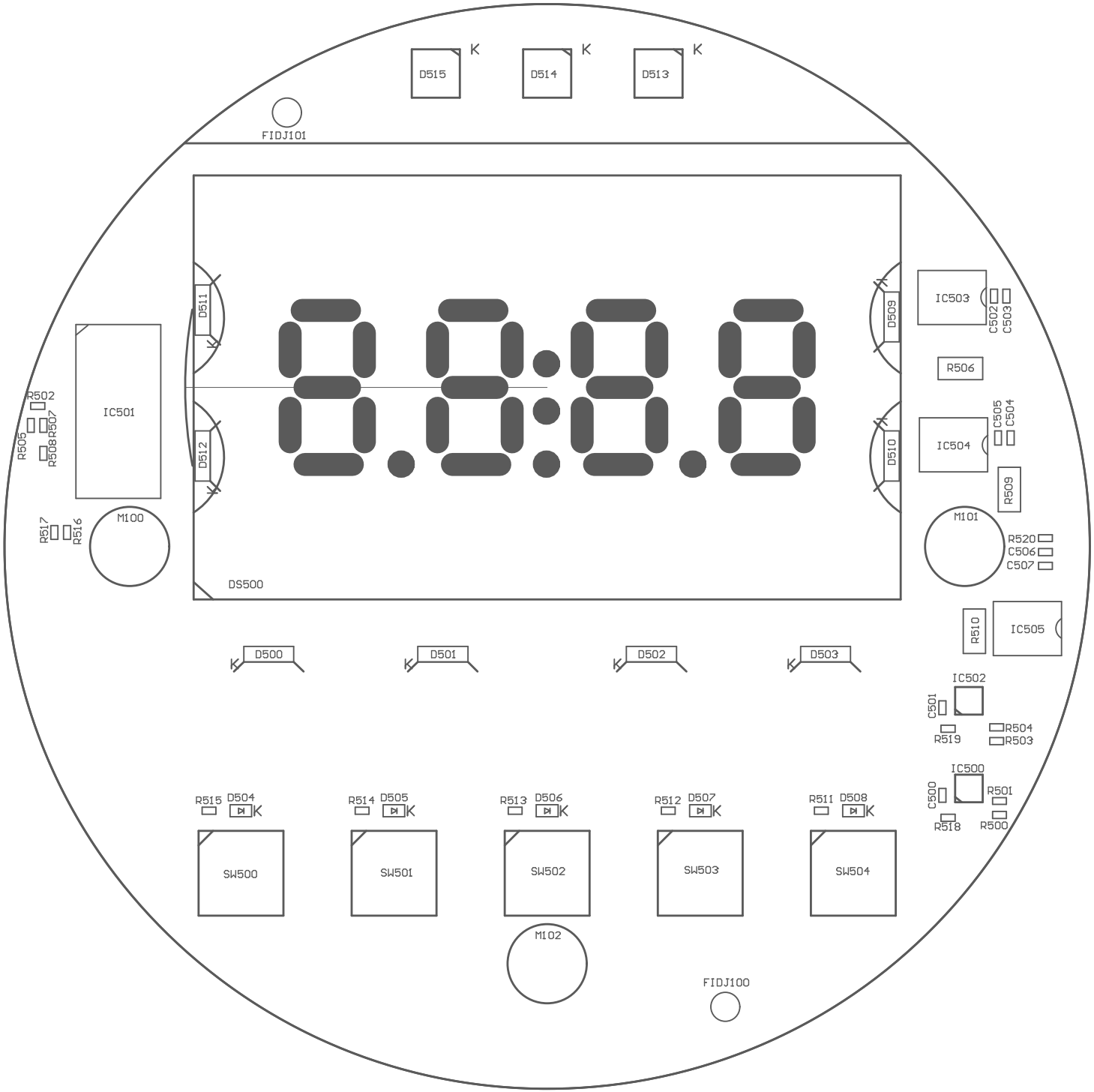
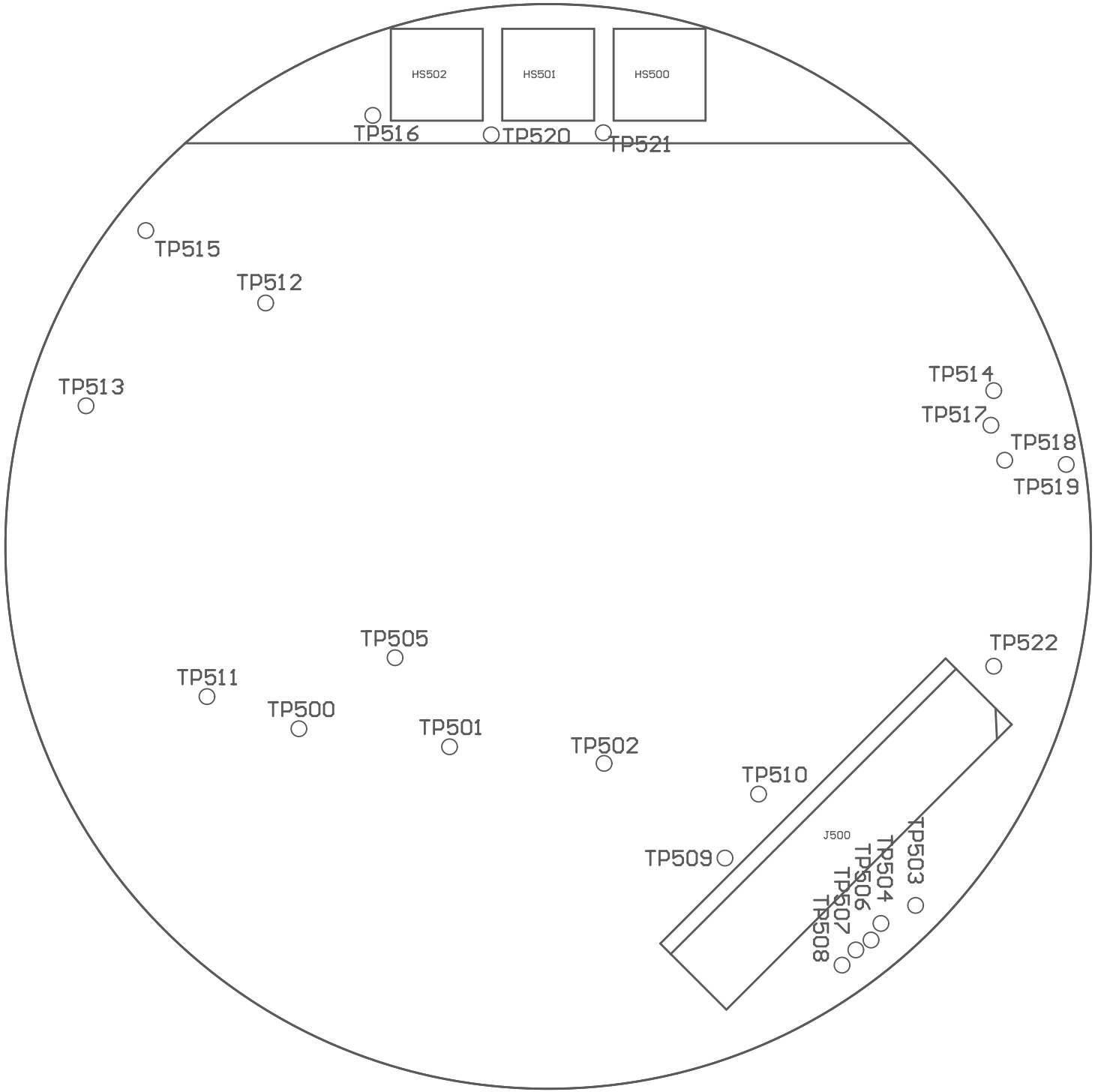
Quantity	Designator	Type	Comment	Description	Manufacturer	Manufacturer Part Number	LibRef	Supplier 1	Supplier Part Number 1
8	C500, C501, C502, C503, C504, C505, C506, C507	Capacitor	C 2.2uF 0402 6.3V	CAP CER 2.2UF 6.3V X6T 0402	Murata Electronics	GRM155D80J225ME95D	CAP_2.2uF_6V3_0402	Digi-Key	490-10450-1-ND
1	J500	Connector	FPC24	CONN FPC BOT 24 PIN 1mm Pitch	MOLEX	522712479	J_FPC24_DS	LCSC	C293627
1	D506	Diode, LED	LED Y	LED YELLOW DIFFUSED	Stanley Electric Co	FKY1111C-TR	D_LED_Yellow_0603	Digi-Key	404-1273-1-ND
3	D513, D514, D515	Diode, LED	LED W	LED XLAMP WARM WHT 2700K SMD	CreeLED, Inc.	XTEAWT-E0-0000-00000HEE8	D_LED_W_HP_3	Digi-Key	XTEAWT-E0-0000-00000HEE8TR-ND
4	D504, D505, D507, D508	Diode, LED	LED G	LED GREEN DIFFUSED 0603 SMD	OSRAM Opto Semiconductors Inc.	LT Q39G-Q1OO-25-1	D_LED_Green_0603	Digi-Key	475-3442-1-ND
8	D500, D501, D502, D503, D509, D510, D511, D512	Diode, LED	LED W	LED WHITE SIDE SMD	Everlight Elec	99-218UMC/1637CD/TR8-T	D_LED_White_s	LCSC	C710226
1	IC501	IC, Driver	BL55072A-R	IC LCD DRIVER 36SEG TSSOP-48	BL(Shanghai Belling)	BL55072A-R	IC_LCD_cntr_BL55072A-R	LCSC	C524044
2	IC500, IC502	IC, Driver	MIC2841AYMT	IC LED DRIVER 4 CH	Microchip Technology	MIC2841AYMT-TR	IC_LED_cntr_MIC2841	Mouser	998-MIC2841AYMTTR
3	IC503, IC504, IC505	IC, Driver	OC7140	IC LED DRIVER 1 CH 2A ESOP8	OCX	OC7140	IC_LED_cntr_OC7140	LCSC	C842736
1	CABLE500	other	FPC24p80mm	FPC Cable 1mm Pitch 24Pin 80mm Opposite Sides	LX	C50299	CABLE_FPC24_80	LCSC	C50299
3	HS500, HS501, HS502	other	Heatsink	Heatsink 6.5mm x 6.5mm	Alphacool	17425	Heatsink_6.5x6.5	Amazon	B077VQTB6Q
5	SW500, SW501, SW502, SW503, SW504	other	SW	SWITCH TACTILE SW-SMD	BRIGHT	TSA063G50-250	SW_TactileSW_V_2	LCSC	C294565
1	DS500	other, Display	LCD 4x1	LCD MOD 4 DIG 4 X 1 REFLECTIVE	Varitronix	VI-402-DP-RC-S	DISPL_7SEG_4x1	Digi-Key	153-1135-ND
1	R513	Resistor	R 2k 0402	RES 2K OHM 1% 1/16W 0402	Stackpole Electronics Inc	RMCF0402FT2K00	R_2k_0402	Digi-Key	RMCF0402FT2K00CT-ND
3	R506, R509, R510	Resistor	R 0R27 1206	RES 0.27 OHM 1% 1/3W 1206	RALEC	RTT06R270FTP	R_0R27_1206	LCSC	C104939
4	R500, R501, R503, R504	Resistor	R 10k 0402	RES 10K OHM 1% 1/16W 0402	YAGEO	RC0402FR-0710KL	R_10k_0402	Digi-Key	311-10.0KLRCT-ND
5	R505, R507, R508, R516, R517	Resistor	R 0R0 0402	RES 0 OHM JUMPER 1/16W 0402	Stackpole Electronics Inc	RMCF0402ZT0R00	R_0R0_0402	Digi-Key	RMCF0402ZT0R00CT-ND
7	R511, R512, R514, R5	Resistor	R 16k 0402	RES 16K OHM 1% 1/16W 0402	Stackpole Electro	RMCF0402FT16K0	R_16k_0402	Digi-Key	RMCF0402FT16K0C


LCD_Keypad_PWM
VBAT
3V0
VLED
IC500
MIC2841AYMT
TP505
TP500 nSW_TIMER2
TP501 nSW_TIMER1
TP502 nSW_TIME_DATE
TP503 nSW_OTA
TP504 nSW_WDA
TP506 LED_TIMER2
TP507 LED_TIMER1
TP508 LED_TIME_DATE
TP509 LED_OTA
TP510 LED_WDA
SW500 Alarm: WD
SW501 Alarm: OT
SW502 Time/Date
SW503 T1 / Q1
SW504 T2 / Q2
J500
FPC24
max 0.5A per pin
I2C_SCL_
I2C_SDA_
LCD_BG_PWM
LED_Light_PWM
nSW_TIMER2
nSW_TIMER1
nSW_TIME_DATE
nSW_OTA
nSW_WDA
LED_TIMER2
LED_TIMER1
LED_TIME_DATE
LED_OTA
LED_WDA
IC502
MIC2841AYMT
TP511
TP512
TP513
IC501
BL55072A-R
Address: 0x7C
VLCD_int
DS500
LCD 4x1
IC503
IC504
IC505
OC7140
P: 1.1 W
P: 700mW
Iset: 370mA
TP514
TP515
TP516
TP517
TP518
TP519
TP520
TP521
TP522
FPC Cable
1.0mm 80mm
24Pin
Opposite Side
CABLE500
HS500
HS501
HS502
Heatsink
LCD_EP
FIDJ100
FIDJ101
M100
M101
M102
GND_LCD
Title Timer_Clock_TOP.PrjPcb
Size: A4
Number:1
Revision:V2.0
Date: 20.06.2022
Time: 15:41:10
Sheet1 of 1
File: LCD.SchDoc
Marius Tetard
2022-06 / Freiburg


D515
K
D514
K
D513
K
FIDJ101
D511
D512
DS500
D509
D510
IC503
C502
C503
R506
C505
C504
IC504
R509
M101
R520
C506
C507
R510
IC505
IC502
C501
R519
R504
R503
IC500
C500
R518
R501
R500
IC501
R502
R505
R507
R508
M100
R517
R516
D500
D501
D502
D503
R515
D504
R514
D505
R513
D506
R512
D507
R511
D508
SW500
SW501
SW502
SW503
SW504
M102
FIDJ100


HS502
HS501
HS500
TP516
TP520
TP521
TP515
TP512
TP513
TP514
TP517
TP518
TP519
TP505
TP522
TP511
TP500
TP501
TP502
TP510
J500
TP509
TP503
TP504
TP506
TP507
TP508

Design Rules Verification Report

Filename : C:\Users\Marius\Documents\GitHub\LCD_Timer_Clock\HW\PCB_TOP\PCB_TOP.CSPcbDoc

Warnings 2
Rule Violations 0

Warnings	
Multilayer Pads with 0 size Hole found	2
Total	2

Rule Violations	
Clearance Constraint (Gap=0.1mm) (All),(All)	0
Width Constraint (Min=0.125mm) (Max=2mm) (Preferred=0.2mm) (All)	0
Power Plane Connect Rule(Relief Connect)(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((Disabled)(All))	0
Minimum Annular Ring (Minimum=0.2mm) (All)	0
Hole Size Constraint (Min=0.2mm) (Max=6.3mm) (All)	0
Height Constraint (Min=0mm) (Max=25.4mm) (Prefered=12.7mm) (All)	0
Hole To Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.05mm) (All),(All)	0
Silk To Solder Mask (Clearance=0.15mm) (IsPad),(All)	0
Silk to Silk (Clearance=0.153mm) (All),(All)	0
Silk primitive without silk layer	0
Unpoured Polygon (Allow unpoured: False)	0
Total	0

Multilayer Pads with 0 size Hole found
Pad FIDJ101-1(-18.7mm,31.2mm) Multi-Layer
Pad FIDJ100-1(12.8mm,-33.1mm) Multi-Layer

Electrical Rules Check Report

Class	Document	Message
		Successful Compile for Timer_Clock_TOP.PrjPcb