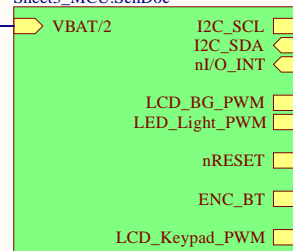


Quantity	Designator	Type	Comment	Description	Manufacturer	Manufacturer Part Number	LibRef
1	C200	Capacitor	C 1nF 0402 50V	CAP CER 1000PF 50V COG/NP0 0402	Murata Electronics	GRM1555C1H102J001J	CAP_1nF_50V_0402
2	C307, C308	Capacitor	C 5.6pF 0402 50V	CAP CER 5.6PF 50V COG/NP0 0402	Samsung Electro-Mechanics	CL05C5R6DB5NN-NC	CAP_5.6PF_50V_0402
4	C201, C202, C203, C208	Capacitor	C 10uF 0603 6.3V	CAP CER 10UF 6.3V X5R 0603	Taiyo Yuden	1MK107ABJ106MA-T	CAP_10uF_6V3_0603
5	C300, C301, C302, C303, C304	Capacitor	C 10nF 0402 16V	CAP CER 10000PF 16V Y5V 0402	Samsung Electro-Mechanics	CL05F103ZO5NN-NC	CAP_10nF_16V_0402
8	C204, C205, C206, C207, C209, C305, C306, C400	Capacitor	C 100nF 0402 10V	CAP CER 0.1UF 10V X5R 0402	Samsung Electro-Mechanics	CL05A104MP5NN-NC	CAP_100nF_10V_0402
1	J202	Connector	TYPE-C-31-M-17	USB4 GEN3, TYPE C, TOP MOUNT	Korean Hroparts Elec	TYPE-C-31-M-17	J_USB-C_2
1	J300	Connector	PH2	CONN HEADER R/A 2POS 2MM	JST Sales America Inc.	S2B-PH-KL(LF)(SN)	J_S2B-PH-KL
1	J301	Connector	CON	CONN CONNECTOR PH 2POS 2MM	JST Sales America Inc.	PHR-2-R	J_PHR-2-R
1	J305	Connector	5x2	CONN HEADER SMD 10POS 1.27MM	Sullins Connector Solutions	GRP8052VWQS-RC	J_MH5x2_1.27
1	J400	Connector	FPC24	CONN FPC BOT 24 PIN 1mm Pitch	MOLEX	522712479	J_FPC24_DS
2	J302, J303	Connector	PIN	PIN INSERT	JST Sales America Inc.	SPH-004T-P0.5S	J_PHR-2-R_PIN
2	D300, D301	Diode	BAS20LT3G	DIODE GP 200V 200MA SOT23-3	onsemi	BAS20LT3G	D_LL_200V_200mA
2	D400, D401	Diode	D SCH 40V 5A	DIODE SCHOTTKY 40V 5A DO214AB	Comchip Technology	CDBC540-G	D_SCH_40V_5A
1	D201	Diode, LED	LED G	LED GREEN DIFFUSED 0603 SMD	OSRAM Opto Semiconductors Inc.	LT O39G-Q100-25-1	D_LED_Green_0603
2	D202, D302	Diode, LED	LED Y	LED YELLOW DIFFUSED	Stanley Electric Co	FKY1111C-TR	D_LED_Yellow_0603
1	D200	Diode, TVS	TVS_4 5V	TVS DIODE 5VWM 12.5VC SOT23-6	Comchip Technology	CPDT6-5V0UPC-HF	D_TVS_U4_12V5
1	IC200	IC	DW01A	IC BATT MANAGEMENT SOT-23-6	PUOLOP	DW01A	IC_BAT_PROT_DW01A
1	IC201	IC	TP4056-42	IC BATT CHG LI-ION 1CELL ESOP-8-EP	TOPPOWER(Nanjing Extension Microelectronics)	TP4056-42-ESOP8	IC_BAT_CHGR_TP4056
1	IC400	IC, Driver	SK1503I091TRT	IC GPIO EXPANDER I2C 16CH 28-QFN	Semtech Corporation	SK1503I091TRT	IC_16ch_Port_Extender_2
1	IC301	IC, EEPROM	AT34C04-XSM	IC EEPROM 4KBIT I2C 1MHZ 8TSSOP	Microchip Technology	AT34C04-XSM-T	IC_EEPROM_AT34C04
1	IC302	IC, MCU	STM32G031F8P6	IC MCU 32BIT 32KB FLASH 20TSSOP	STMicroelectronics	STM32G031F8P6	IC_MCU_STM32G031F8P6
1	IC202	IC, OpAmp	MCP6007-E/SN	DUAL, 1MHZ OP AMP, E TEMP	Microchip Technology	MCP6007-E/SN	IC_OpAmp_MCP6007-E/SN
1	IC204	IC, Reference	VREF 3V0	IC VREF SHUNT 1% SOT23-3	Texas Instruments	LM4040DIM3X-3.0/NOPB	IC_Ref_LM4040DIM3X-3.0
1	IC203	IC, Regulator	TCR2LF30	IC REG LINEAR 3V 200MA SMV	Toshiba Semiconductor and Storage	TCR2LF30.LM(CT)	IC_Reg_TCR2LF30
1	IC300	IC, RTC	RV-3028-C7	IC RTC CLK/CALENDAR I2C 10SON	Micro Crystal AG	RV-3028-C7TAQC	IC_RTC_3028-C7
1	L200	Inductor, Ferrite	L Ferrite 100R 4A	FIXED IND 100 4000MA 1206	Eaton - Electronics Division	MFBM1V3216-101-R	L_100R_4A
1	DS300	other	DFP Mini-YX5200	Mini-YX5200 Audio MP3 Modul	DFRobot	DFR0299	DFP_Player_mini
1	J203	other	BAT	SMT Battery Connectors 18650	MYOUNG	MY-18650-02	J_BAT_CLIP_18650_A
1	J204	other	BAT	SMT Battery Connectors 18650	MYOUNG	MY-18650-02	J_BAT_CLIP_18650_B
1	SW302	other	SW	SWITCH TACTILE SPST-NO 0.05A 16V	C&K	PTS810 SJM 250 SMTR LFS	SW_TactileSW_V
1	Q300	Other, Crystal	32.7680KHZ	CRYSTAL 32.7680KHZ 12.5PF SMD	NDK America, Inc.	NK3275SA-32.768K-EXS00A-MU00003	Q_32k768_12p5
2	SW300, SW301	other, Encoder	Encoder	ROTARY ENCODER MECHANICAL 12PPR	Bourns Inc.	PEC11R-4220F-S0012	ENC_12_THT
1	R213	Resistor	R 220R 0603	RES 220 OHM 1% 1/10W 0603	Stackpole Electronics Inc	RMCF0603F1220R	R_220R_0603
1	R217	Resistor	R 84k5 0402	RES SMD 84.5K OHM 1% 1/16W 0402	Vishay Dale	KED	R_84k5_0402
1	R401	Resistor	R 1k8 0402	RES 100K OHM 5% 1/16W 0402	YAGEO	RC0402JR-07100KL	R_100k_0402
18	R203, R205, R208, R209, R210, R214, R215, R300, R301, R302, R303, R304, R305, R306, R307, R312, R319, R320	Resistor	R 10k 0402	RES 10K OHM 1% 1/16W 0402	YAGEO	RC0402FR-0710KL	R_10k_0402
2	R211, R212	Resistor	R 5k1 0402	RES 5.1K OHM 1% 1/16W 0402	Stackpole Electronics Inc.	RMCF0402FT5K10	R_5k1_0420
3	R218, R219, R402	Resistor	R 0R0 0402	RES 0 OHM JUMPER 1/16W 0402	Stackpole Electronics Inc.	RMCF0402T0R00	R_0R0_0402
4	R200, R201, R216, R310	Resistor	R 270k 0402	RES 270K OHM 1% 1/16W 0402	YAGEO	RC0402FR-07270KL	R_270k_0402
8	R204, R206, R207, R308, R309, R311, R313, R314	Resistor	R 2k 0402	RES 2K OHM 1% 1/16W 0402	Stackpole Electronics Inc	RMCF0402FT2K00	R_2k_0402
9	R202, R315, R316, R317, R318, R321, R322, R323, R324	Resistor	R 100R 0402	RES 100 OHM 1% 1/16W 0402	Stackpole Electronics Inc.	RMCF0402FT100R	R_100R_0402
1	P200	Transistor	P2 NMOS 20V 6A	MOSFET 2N_CH 20V 6A TSSOP-8	Fortune Semicon	FS8205A	P_2NCH_20V_1W
2	P300, P400	Transistor	P PMOS 30V 6A	MOSFET P-CH 30V 6A SOT23F	Toshiba Semiconductor and Storage	SSM3J372R,LF	P_PCH_30V_1W
3	P201, P202, P301	Transistor	P_NCH_50V_150mW	MOSFET N-CH 50V 200MA UMT3F	Rohm Semicondu	RU1J002YNTCL	P_NCH_50V_150mW

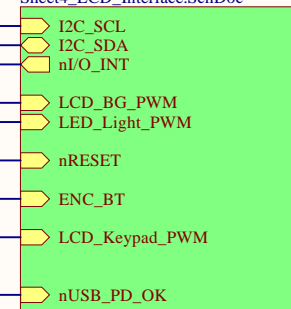
Power Supply  
Sheet2\_Power\_Supply.SchDoc



MCU, Encoder, EEPROM  
Sheet3\_MCU.SchDoc

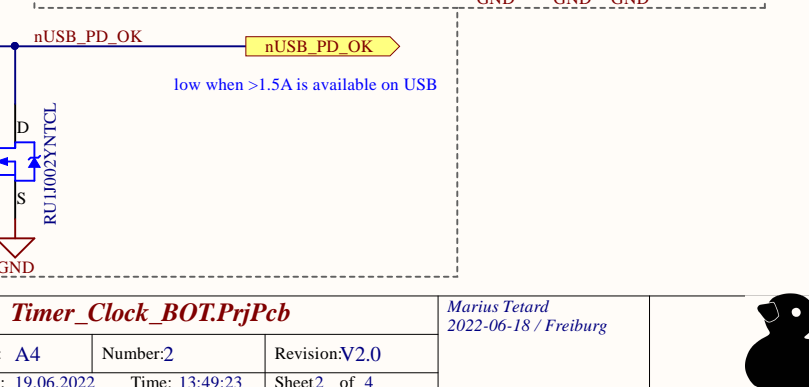
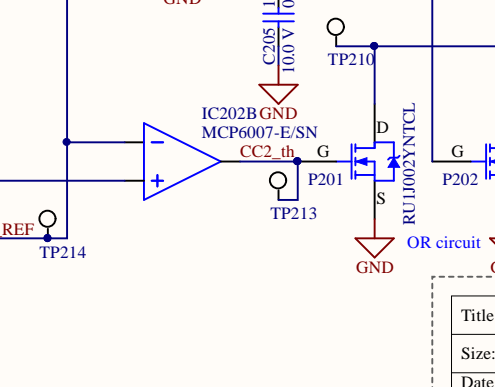
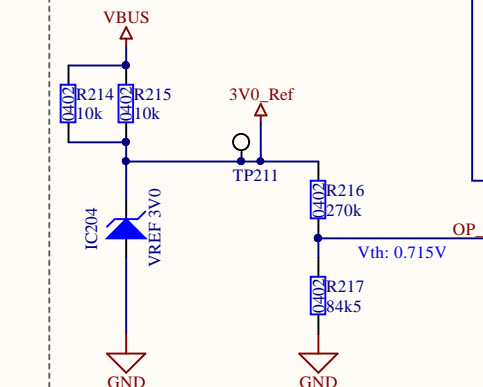
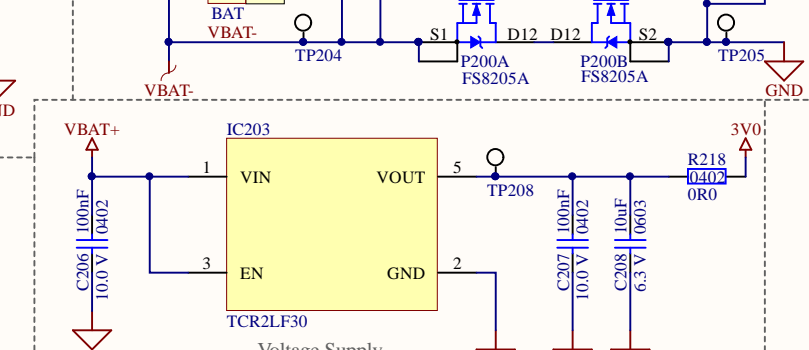
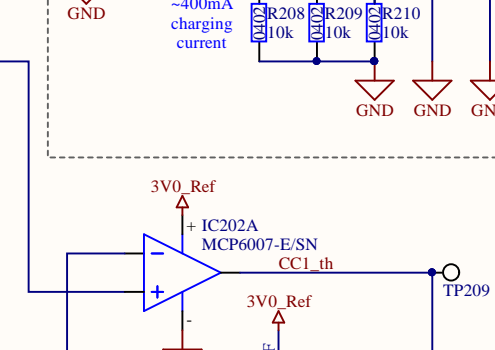
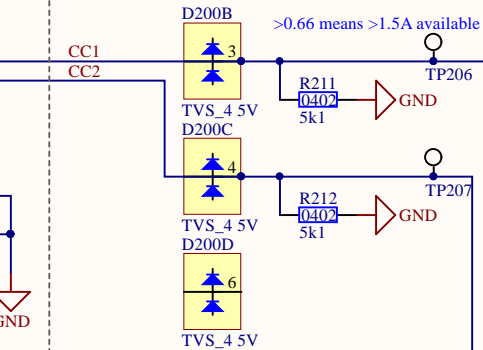
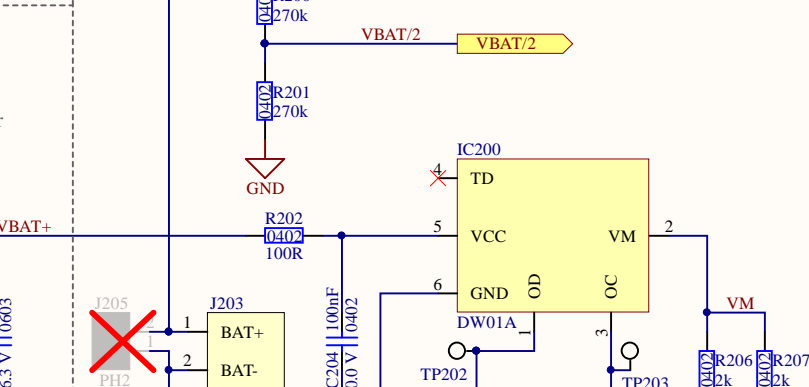
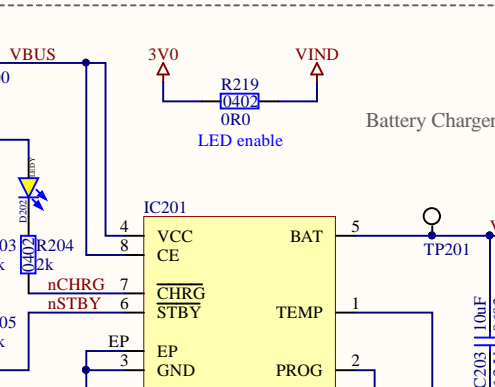
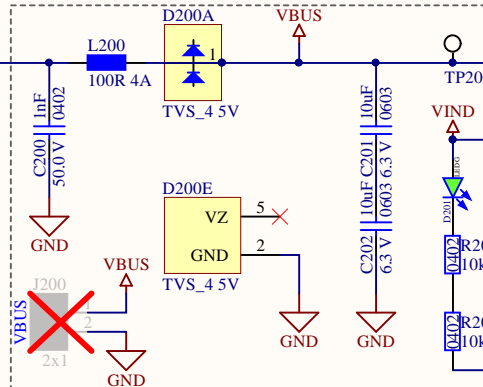
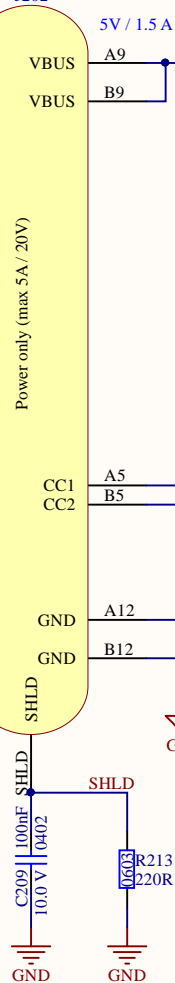


LCD Interface  
Sheet4\_LCD\_Interface.SchDoc



TYPE-C-31-M-17

J202  
VBUS  
VBUS  
5V / 1.5 A  
Power only (max 5A / 20V)  
CC1  
CC2  
GND  
SHLD  
SHLD

Title **Timer\_Clock\_BOT.PrjPcb**Marius Tetard  
2022-06-18 / Freiburg

Size: A4

Number: 2

Revision: V2.0

Date: 19.06.2022

Time: 13:49:23

Sheet2 of 4

File: Sheet2\_Power\_Supply.SchDoc







