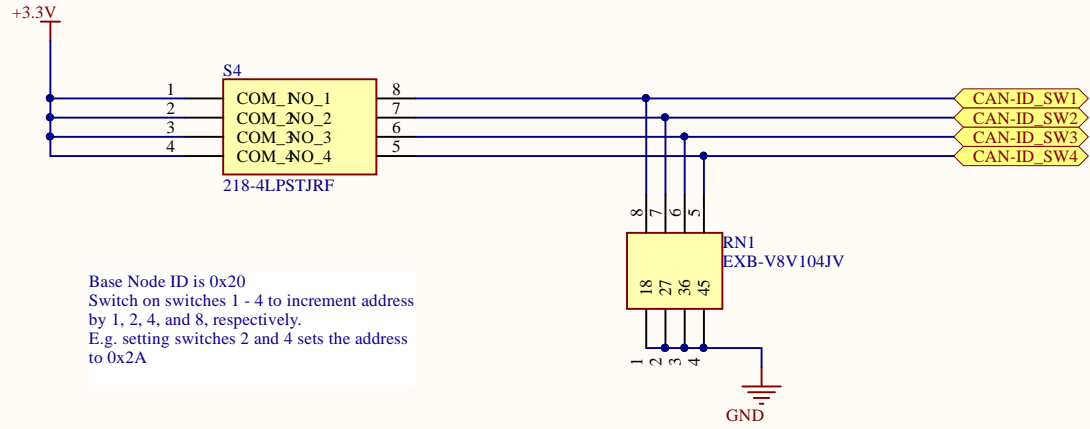
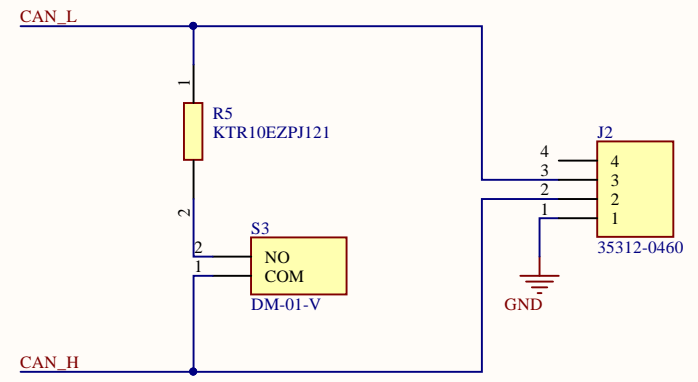
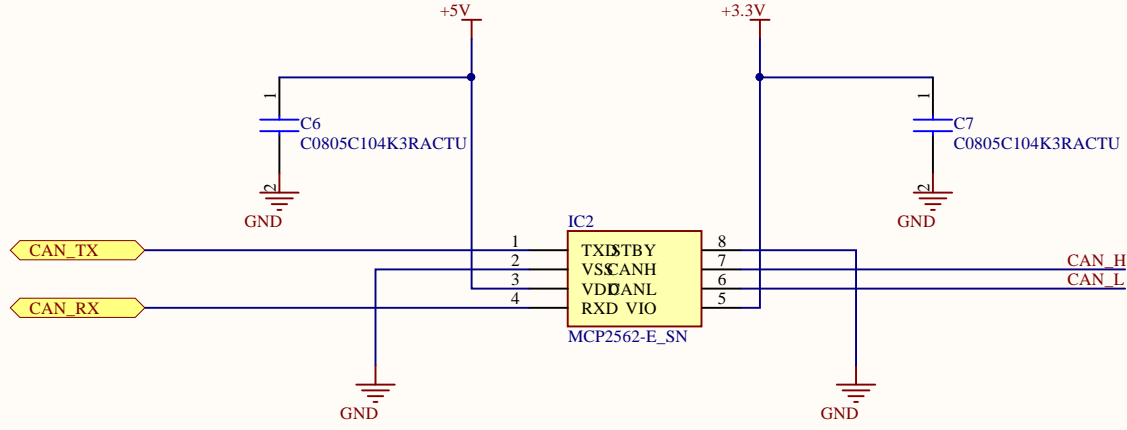
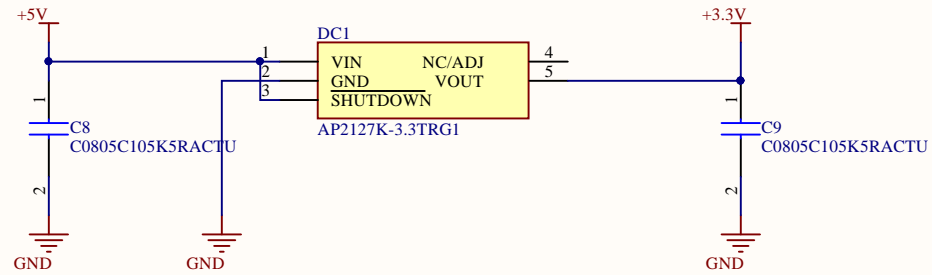


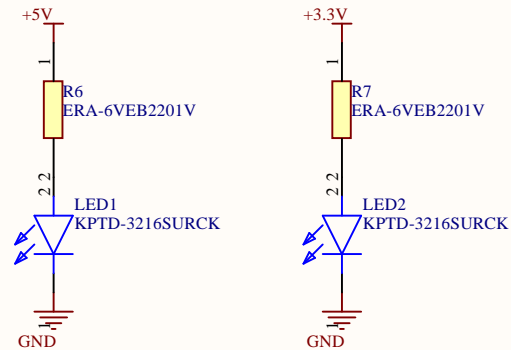
Title Time Circuit Control - Microcontroller			
Size A4	Number TC_CONTROL-000-001	Revision 1.0	
Date:	01/08/2022	Sheet of	
File:	C:\Users\...\STM32 MCU.SchDoc	Drawn By:	



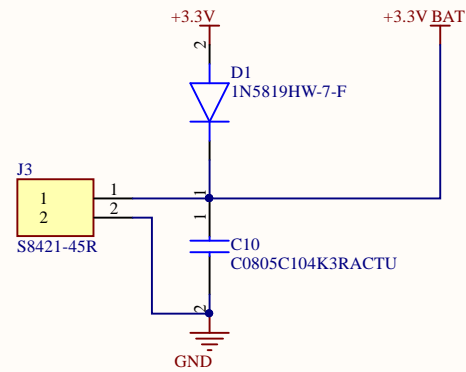
Title Time Circuit Control - CAN Communications			
Size A4	Number TC_CONTROL-000-002	Revision 1.0	
Date:	01/08/2022	Sheet 6 of	7
File:	C:\Users\...\CAN Communications.SchDoc Drawn By: Matthew Kimball		



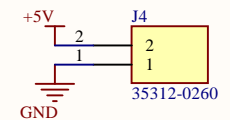
5VDC / 3.3VDC Power Converter



Power Indication LEDs

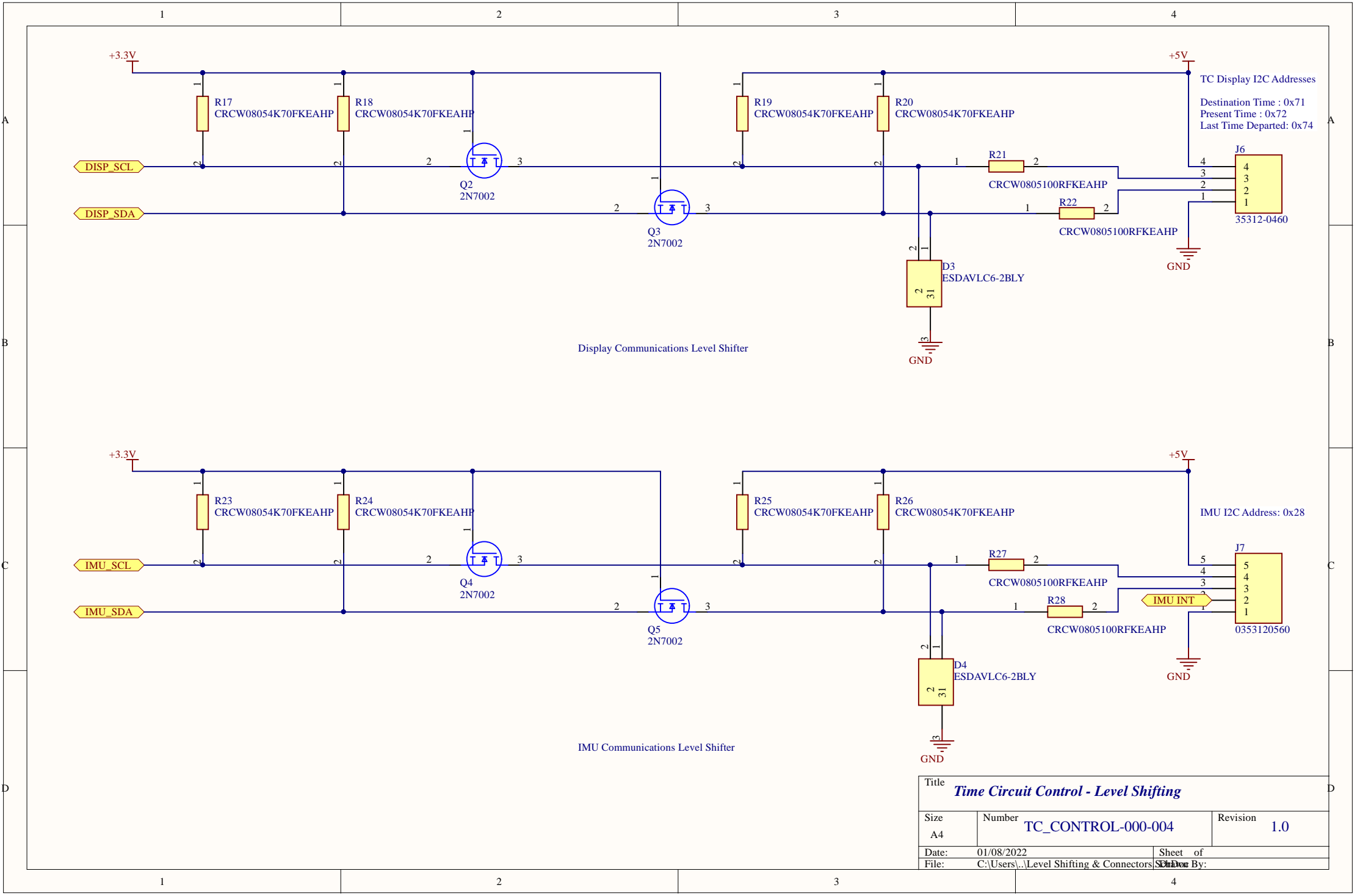


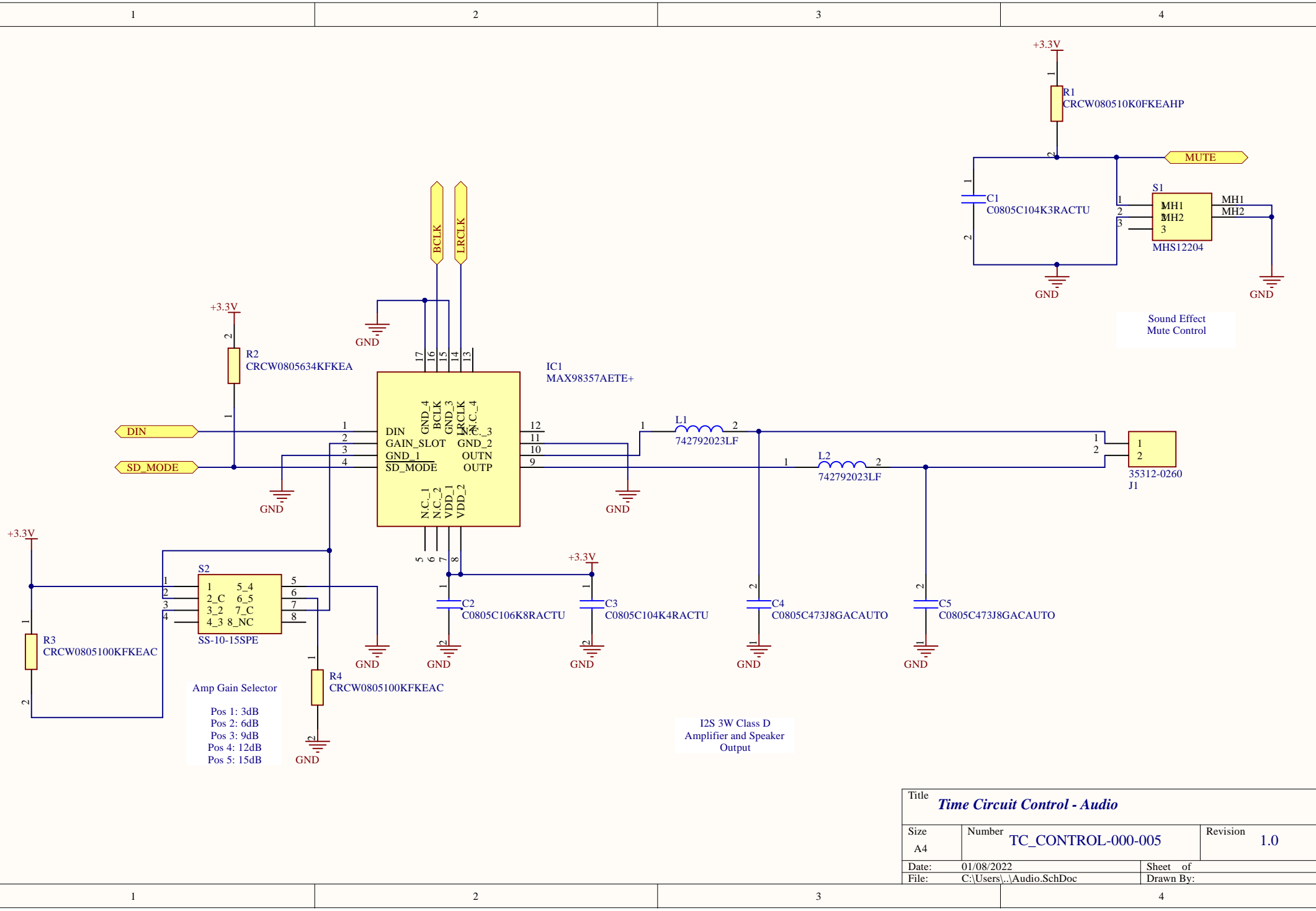
RTC 3V Battery



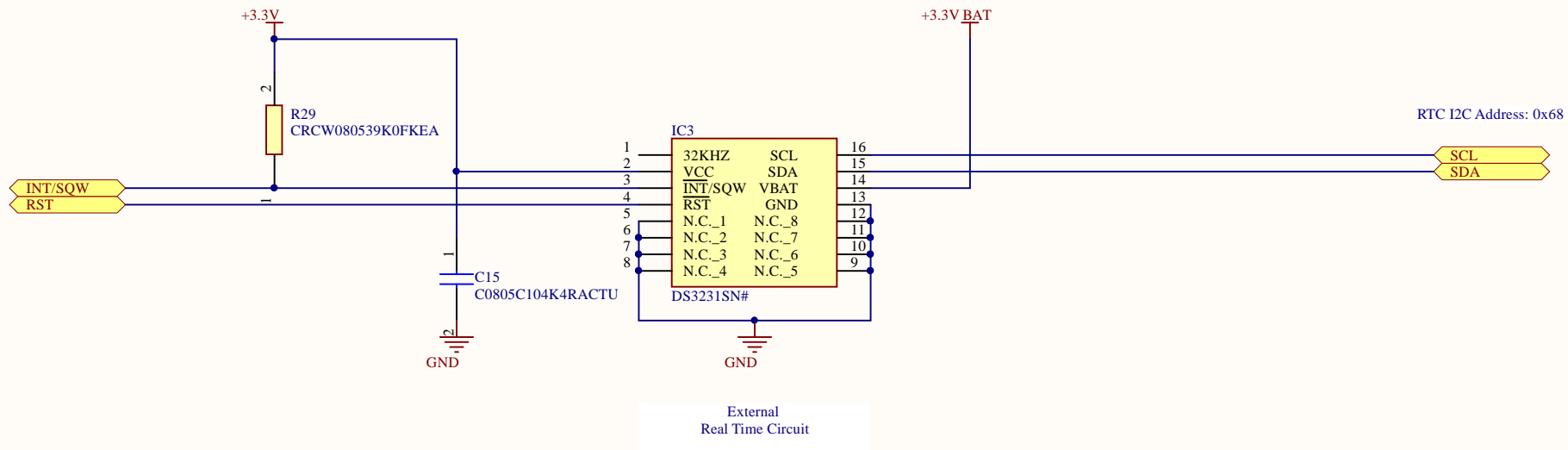
5VDC Input

Title Time Circuit Control - Power		
Size A4	Number TC_CONTROL-000-003	Revision 1.0
Date:	01/08/2022	Sheet 3 of 3
File:	C:\Users\...\Core Power.SchDoc	Drawn By: Matthew Kimball

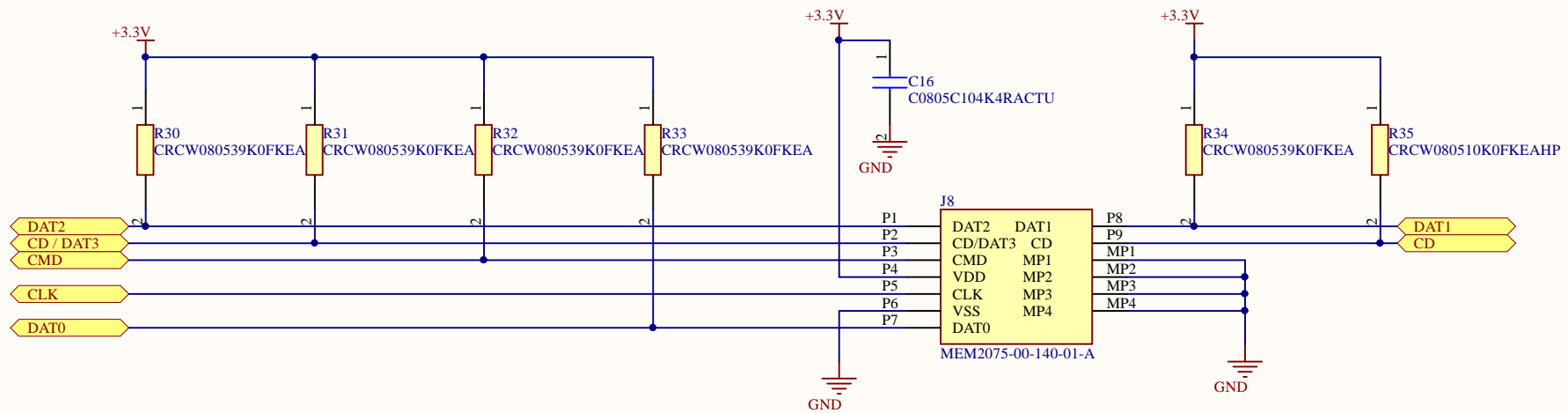




Title Time Circuit Control - Audio		
Size A4	Number TC_CONTROL-000-005	Revision 1.0
Date:	01/08/2022	Sheet of
File:	C:\Users\...\Audio.SchDoc	Drawn By:

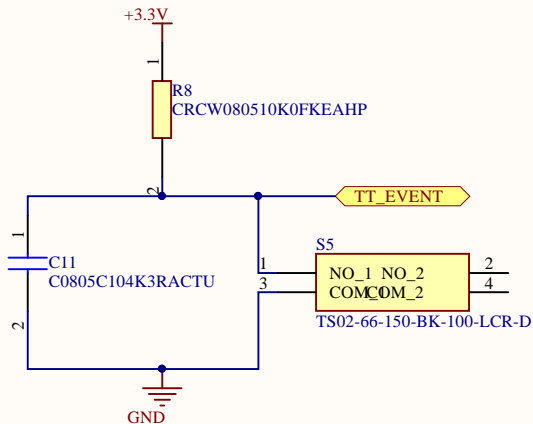


Title Time Circuit Control - RTC		
Size A4	Number TC_CONTROL-000-006	Revision 1.0
Date:	01/08/2022	Sheet of
File:	C:\Users\...\RTC.SchDoc	Drawn By:

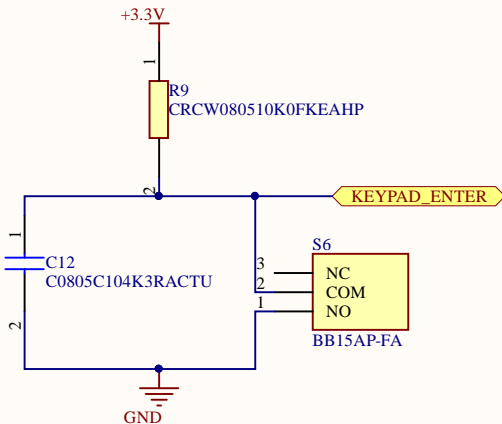


Sound Effect
SD Card Holder

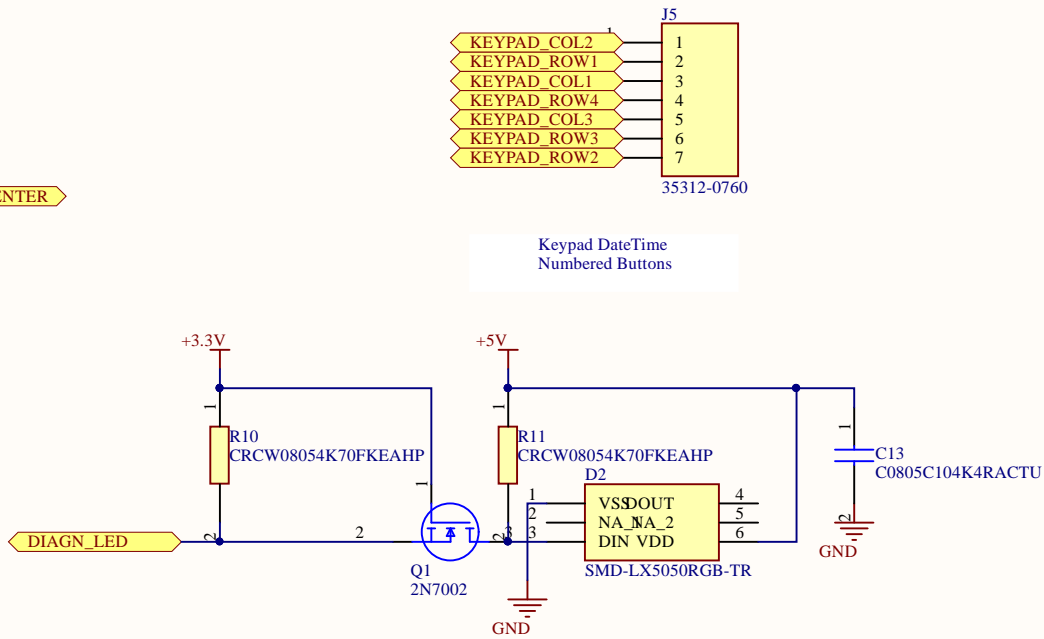
Title Time Circuit Control - SD Card		
Size A4	Number TC_CONTROL-000-007	Revision 1.0
Date:	01/08/2022	Sheet of
File:	C:\Users\...\SD Card.SchDoc	Drawn By:



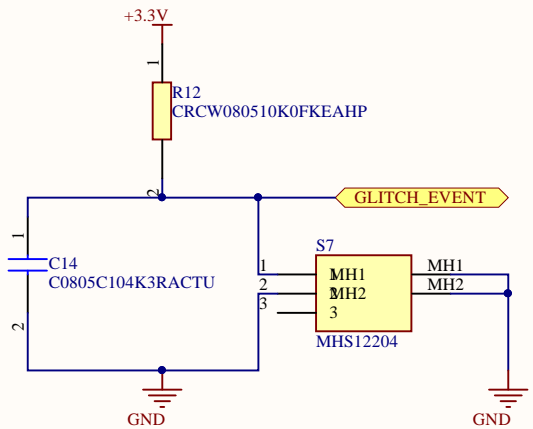
Time Travel Simulation Event Push Button



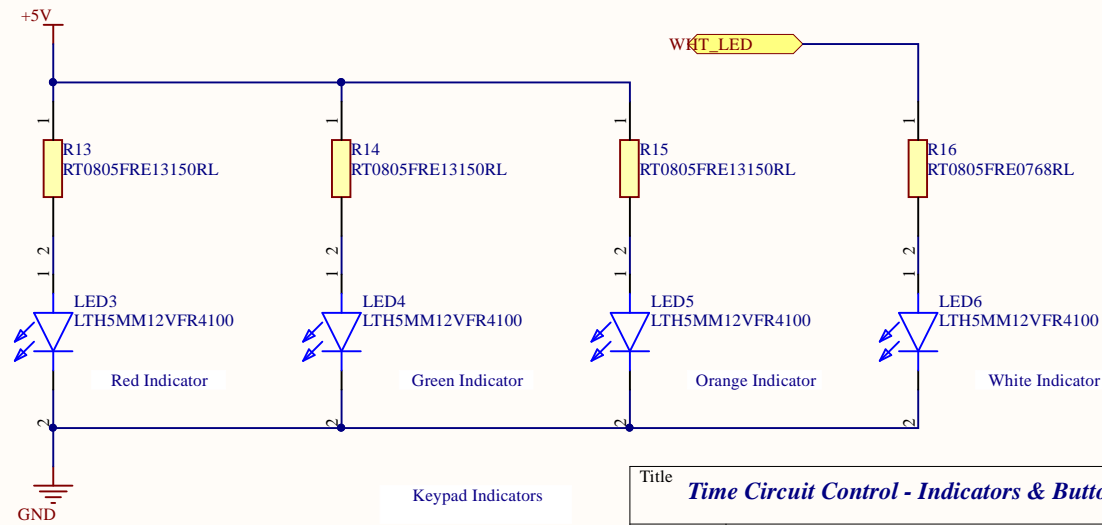
Keypad DateTime Enter Push Button



Diagnostic Addressable LED



Time Circuit Glitch Event Toggle Slider Switch



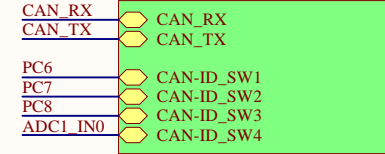
Keypad Indicators

Title Time Circuit Control - Indicators & Buttons		
Size A4	Number TC_CONTROL-000-008	Revision 1.0
Date: 01/08/2022	Sheet of	
File: C:\Users\...\Indicators & Buttons.SchDoc	Drawn By:	

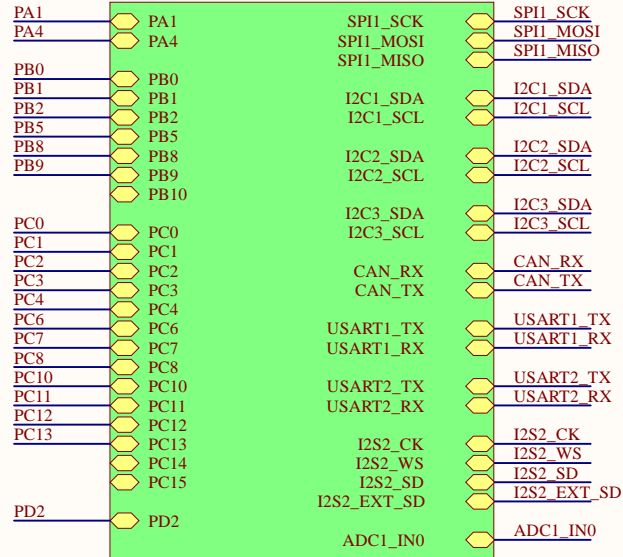
Power
Core Power.SchDoc



CAN Comms
CAN Communications.SchDoc



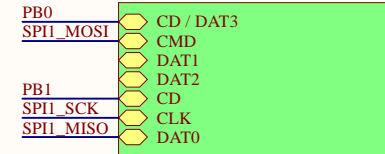
MCU
STM32 MCU.SchDoc



Ext RTC
RTC.SchDoc



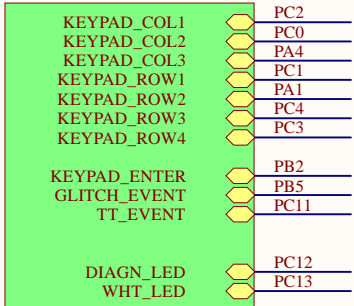
Sound Effect Memory
SD Card.SchDoc



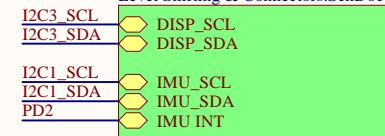
Audio Amp & Control
Audio.SchDoc



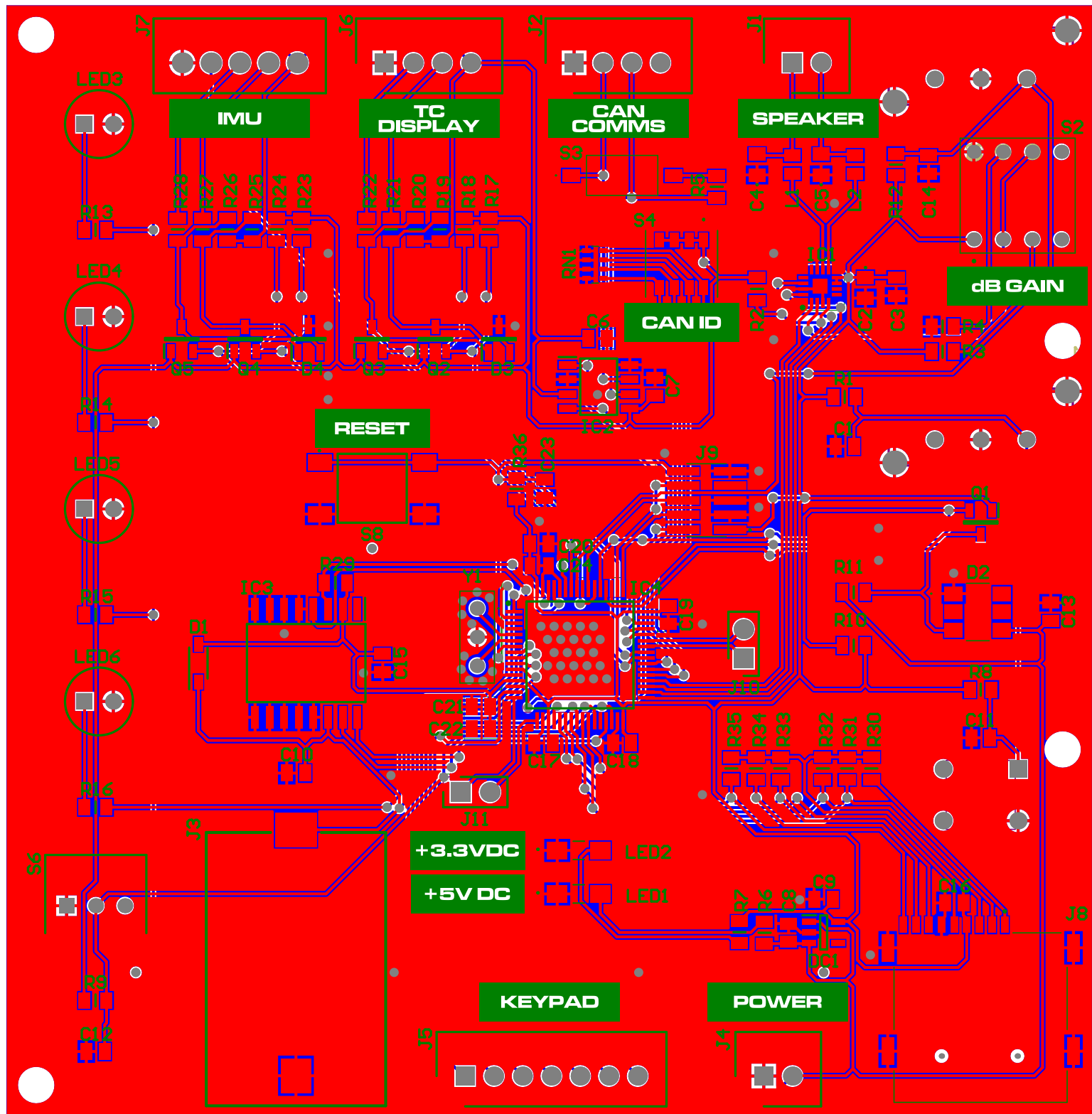
Keypad Controls
Indicators & Buttons.SchDoc



TC Display & IMU
Level Shifting & Connectors.SchDoc



Title Time Circuit Control			
Size A4	Number TC_CONTROL-000-000	Revision 1.0	
Date:	01/08/2022	Sheet of	
File:	C:\Users\...\Time Circuit Control.SchDoc	Drawn By:	



Bill of Materials

Bill of Materials For Project [Time Circuit Control.PrjPcb] (No PCB Document Selector

Source Data From:	Time Circuit Control.PrjPcb
Project:	Time Circuit Control.PrjPcb
Variant:	None

Creation Date:	01/08/2022	11:05:38
Print Date:	01-Aug-22	11:05:52 AM

Footprint	Comment	LibRef	Designator	Description	Quantity
CAPC2012XB8N	C0805C104K3R	C0805C104K3R	C1, C8, C7, C10, C11, C12, C14, C17, C18, C19, C20, C23	Capacitor	12
C0805	C0805C106K8R	C0805C106K8R	C2	Capacitor	1
CAPC2012XB8N	C0805C104K4R	C0805C104K4R	C3, C13, C15, C16	Capacitor	4
C0805	C0805C473J8G	C0805C473J8G	C4, C5	Capacitor	2
CAPC2012X140N	C0805C105K5R	C0805C105K5R	C8, C9, C21	Capacitor	3
CAPC2012XB8N	C0805C103J5R	C0805C103J5R	C22	Capacitor	1
CAPC2013X140N	C0805C475K3P	C0805C475K3P	C24	Capacitor	1
SOD3716X121N	1N5819HW-7-F	1N5819HW-7-F	D1	Diode	1
SMDLX5050	SMD-	SMD-	D2	Diode	1
RGBTR	LX5050RGB-TR	LX5050RGB-TR			
SOT96P255X150-3N	ESDAVLC6-2BLY	ESDAVLC6-2BLY	D3, D4	TVS Diode (Bi-directional)	2
SOT96P282X145-5N	AP2127K-3.3TRG1	AP2127K-3.3TRG1	DC1	Integrated Circuit	1
QFN50P300X300X80-17N	MAX98357AETE+	MAX98357AETE+	IC1	Integrated Circuit	1
SOIC127P60	MCP2562-E_SN	MCP2562-E_SN	IC2	Integrated Circuit	1
0X175-8N	DS3231SN#	DS3231SN#	IC3	Integrated Circuit	1
SOIC127P1032X265-16N	STM32F405RG16	STM32F405RG16	IC4	Integrated Circuit	1
QFP50P1200X1200X160-84N	35312-0260	35312-0260	J1, J4	Connector	2
SHDR2W64P0X250_1X2_746X650X700P	35312-0460	35312-0460	J2, J6	Connector	2
SHDR4W64P0X250_1X4_1246X650X700P	S8421-45R_1	S8421-45R	J3	Connector	1
SHDR7W64P0X250_1X7_1996X650X700P	35312-0760	35312-0760	J5	Connector	1
0353120560	0353120560	0353120560	J7	Connector	1
MEM20750014001A	MEM2075-00-140-01-A	MEM2075-00-140-01-A	J8	Connector	1
FTSH-105-XXYY-Y-DV-K-P	FTSH-105-01-F-DV-K-P	FTSH-105-01-F-DV-K-P	J9	Connector	1
HDRV2W66P0X254_1X2_50XG54X674P	M20-9990246	M20-9990246	J10, J11	Connector	2
CAPC2012X10N	742792023LF	742792023LF	L1, L2	Inductor	2
KPTD3216S	KPTD-	KPTD-	LED1, LED2	LED	2
URCK	3216SURCK	3216SURCK			
LTH5MM12VFR4100	LTH5MM12VFR4100	LTH5MM12VFR4100	LED3, LED4, LED5, LED6	LED	4
SOT96P240X120-3N	2N7002	2N7002	Q1, Q2, Q3, Q4, Q5	MOSFET (N-Channel)	5
RESC2012XB0N	CRCW080510K0FKEAHP	CRCW080510K0FKEAHP	R1, R8, R9, R12, R35, R36	Resistor	6
RESC2012XB0N	CRCW0805634KFKEA	CRCW0805634KFKEA	R2	Resistor	1
RESC2012XB0N	CRCW0805100KFKEAC	CRCW0805100KFKEAC	R3, R4	Resistor	2
RESC2012XB0N	KTR10EZPJ121	KTR10EZPJ121	R5	Resistor	1
RESC2012XB0N	ERA-6VEB2201V	ERA-6VEB2201V	R6, R7	Resistor	2
RESC2012XB0N	CRCW08054K70FKEAHP	CRCW08054K70FKEAHP	R10, R11, R17, R18, R19, R20, R23, R24, R25, R26	Resistor	10
RESC2012XB0N	RTD805FRE13150RL	RTD805FRE13150RL	R13, R14, R15	Resistor	3
RESC2012XB0N	RTD805FRE0769RL	RTD805FRE0769RL	R16	Resistor	1
RESC2012XB0N	CRCW0805100RFKEAHP	CRCW0805100RFKEAHP	R21, R22, R27, R28	Resistor	4
RESC2012XB0N	CRCW080539K0FKEA	CRCW080539K0FKEA	R29, R30, R31, R32, R33, R34	Resistor	6
EXBV8V104JV	EXB-V8V104JV	EXB-V8V104JV	RN1	Resistor Network	1
MHS12204	MHS12204	MHS12204	S1, S7	Switch	2
SS1015SPE	SS-10-15SPE	SS-10-15SPE	S2	Switch	1
DM01V	DM-01-V	DM-01-V	S3	Switch	1
2184LPSTJRF	218-4LPSTJRF	218-4LPSTJRF	S4	Switch	1
TS0266150BK	TS02-66-150-BK	TS02-66-150-BK	S5	Integrated Circuit	1
K100LCRD	100-LCR-D	100-LCR-D			
BB15APFA	BB15AP-FA	BB15AP-FA	S6	Switch	1
FSM2J_1	2-1437565-8	2-1437565-8	S8	Switch	1
CSTLS8M00G5340	CSTLS8M00G53-A0	CSTLS8M00G53-A0	Y1	Crystal or Oscillator	1

Approved	Notes