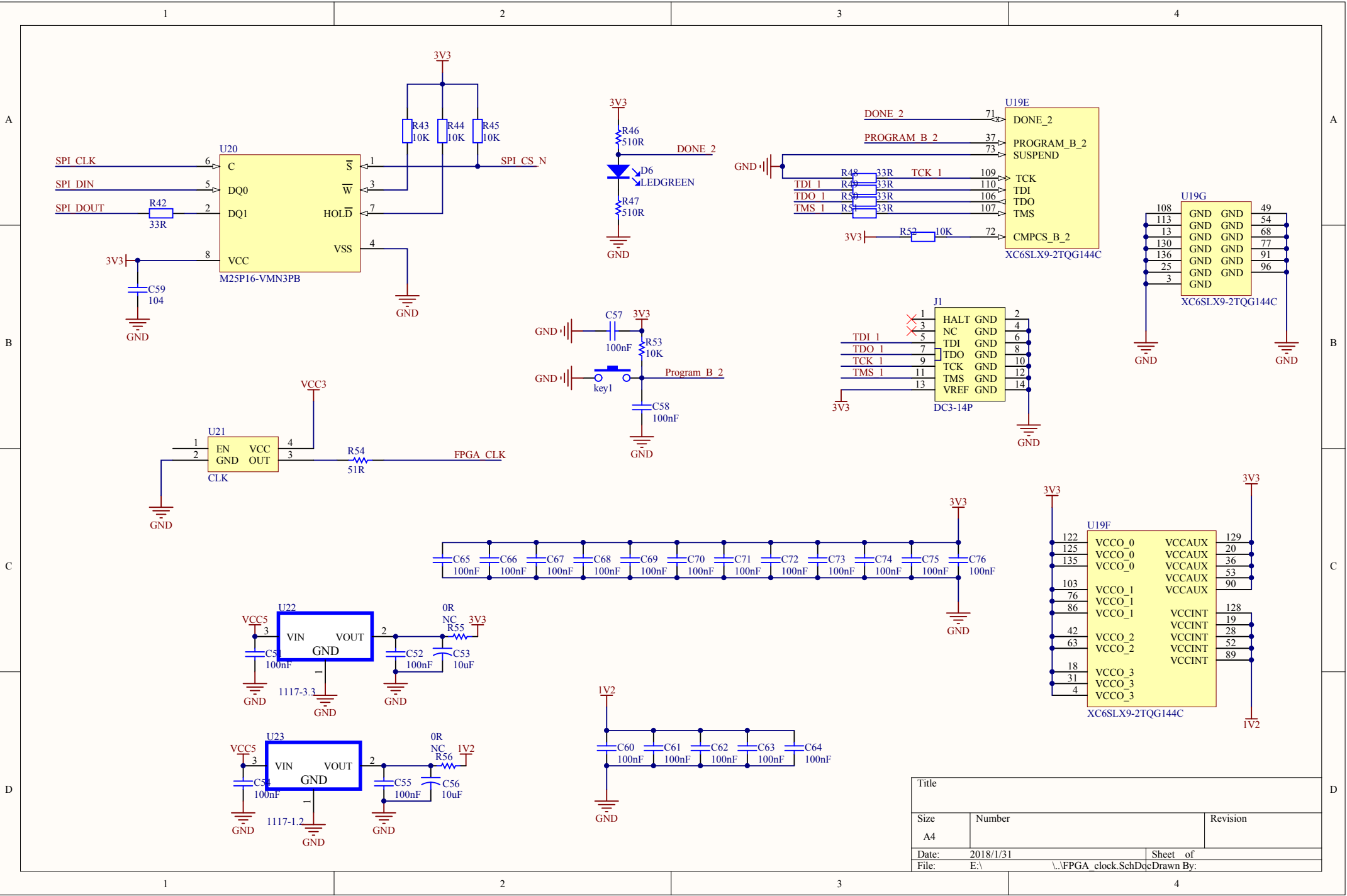
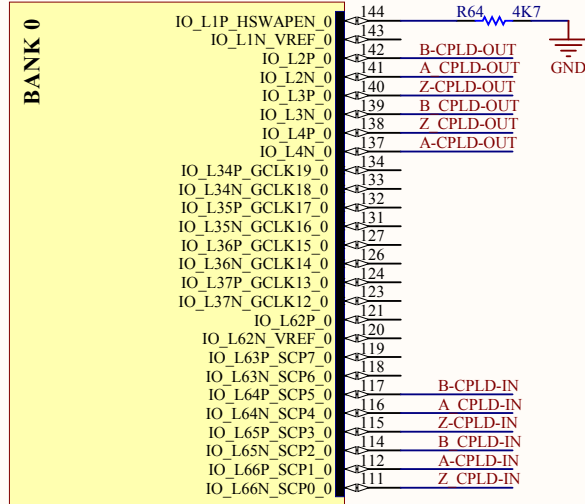


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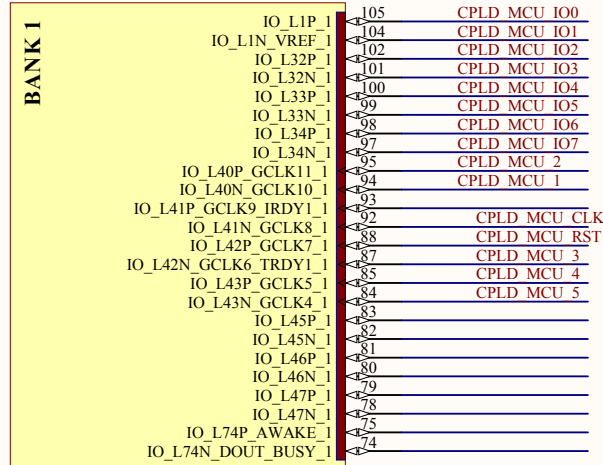
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U19A



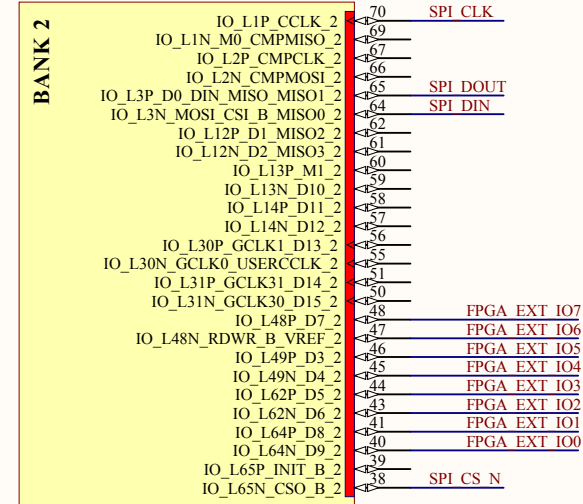
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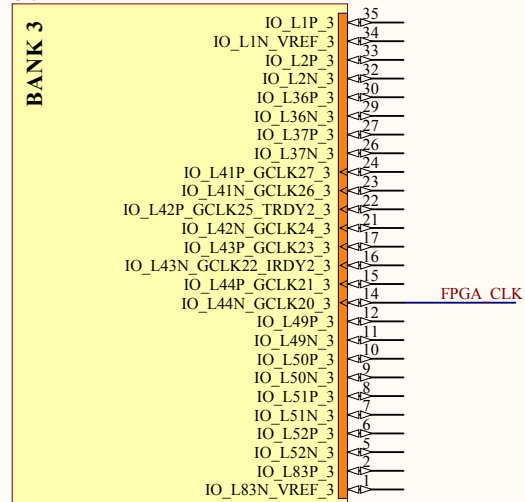
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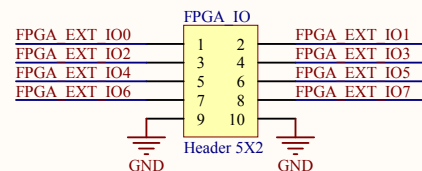


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U19D



XC6SLX9-2TQG144C



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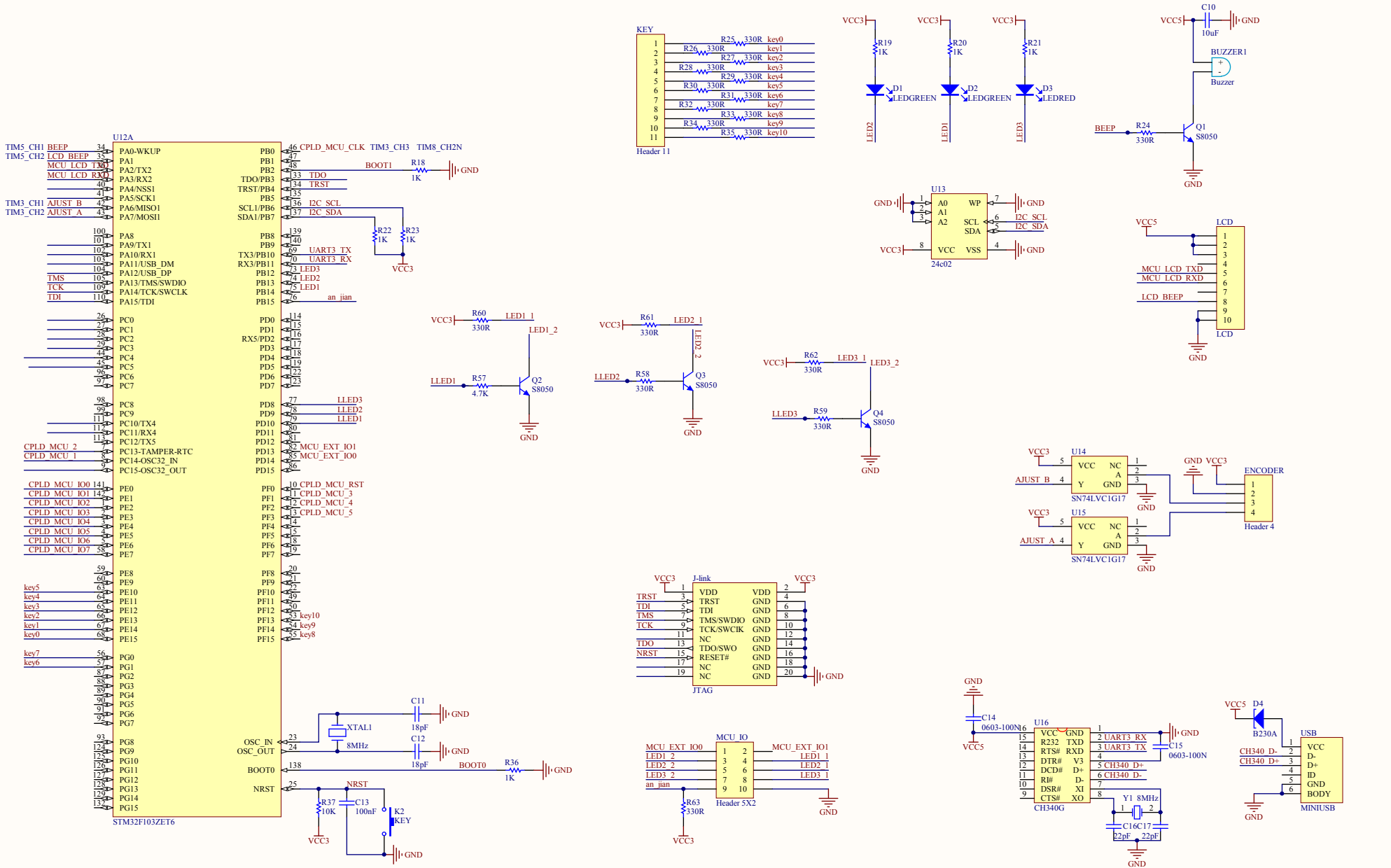
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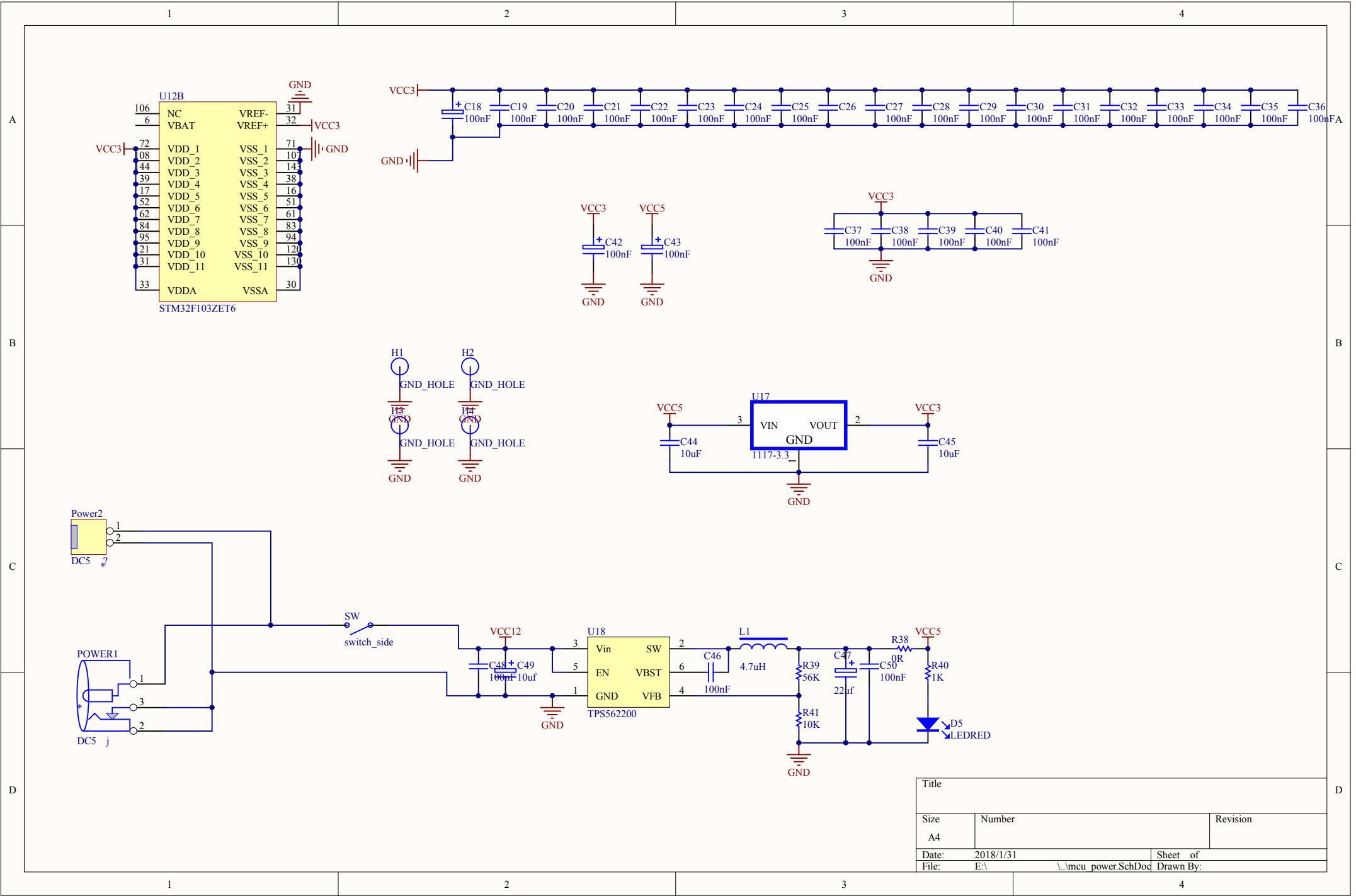
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D



Title		
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Date:	2018/1/31	Sheet of
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Size	Number	Revision
A4		
Date:	2018/1/31	Sheet of
File:	E:\	Drawn By:

Bill of Materials				<Parameter Title not found>	
Source Data From: jichuang1.PrjPCB					
Project: jichuang1.PrjPCB					
Variant: None					
Creation Date: 2018/1/31 12:55:23					
Print Date: 43131 43131.53852					
Footprint	Comment	LibRef	Designator	Description	Quantity
Buzzer	Buzzer	Buzzer	BUZZER1		1
SMD0603-S	C0603	C0603	C2, C3, C4, C5, C6, C7, C11, C12, C13, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C32, C33, C34, C35, C36, C38, C39, C40, C41, C46	Ceramic Chip Capacitor - Standard	32
SMD0805L	C0603	C0603	C8, C9, C10, C37, C48, C50	Ceramic Chip Capacitor - Standard	6
SMD0603-S	0603-100N	Cap	C14, C15	Capacitor	2
SMD0603-S	CAP	C_TA_B	C16, C17	Capacitor	2
SMD0603-S	CAP-	C_TA_B	C18	Tantalum capacity	1
SMD3528(B)		C_TA_B	C42, C43	Tantalum capacity	2
CAP-	C0603	C0603	C44, C45	Ceramic Chip Capacitor - Standard	2
SMD3528(B)					
CAP D 7343	C_TA_B	C_TA_B	C47	Tantalum capacity	1
CAP_SMD	C_TA_B	C_TA_B	C49	Tantalum capacity	1
0603C	Cap	Cap	C51, C52, C54, C55, C57, C58, C59	Capacitor	7
0805c	Cap	Cap2	C53, C56	Capacitor	2
0402c	Cap	Cap	C60, C61, C62, C63, C64, C65, C66, C67, C68, C69, C70, C71, C72, C73, C74, C75, C76	Capacitor	17
0805_led	LEDGREEN	LEDGREEN	D1, D2, D6		3
0805_led	LEDRED	LEDRED	D3, D5		2
3.2X1.6X1.1	B230A	D Tunnel#1	D4	Tunnel Diode - RLC Model	1
3.96-4	Header 4	Header 4	ENCODER	Header, 4-Pin	1
HDR2X5	Header 5X2	Header 5X2	FPGA_IO, MCU_IO	Header, 5-Pin, Dual row	2
GND_HOLE	GND_HOLE	GND_HOLE	H1, H2, H3, H4		4
DB9	D Connector 9	D Connector 9	INPUT, OUTPUT	Receptacle Assembly, 9 Position, Right Angle	2
HEADER10X	JTAG	JTAG	J-link		1
JTAG7*2	DC3-14P	JTAG7*2	J1	JTAG_Connector	1
SMD_KEY3*	KEY	SW-PB	K2	Switch	1
6m					
2.54-11	Header 11	Header 11	KEY	Header, 11-Pin	1
AN66	KEY	KEY	key1		1
IND 0630	4.7uH	INDUCTOR_IRO	L1		1
FPC_1.0_11P	LCD	Header 10	N	Header, 10-Pin	1
3.96-2		X#1_2.54_2	LCD		
DC-005		DC005	Power2		1
SOT-23_A	S8050	S8050-SOT23	POWER1		1
SMD0603-S	resistor	Res	C1, Q2, Q3, Q4		4
SMD0603-S			R6, R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R17		12
SMD0603-S	R0603	R0603	R18, R19, R20, R21, R22, R23, R24, R25, R26, R27, R28, R29, R30, R31, R32, R33, R34, R35, R36, R37, R39, R40, R41	Precision Thick Film Chip Resistor, 10 Ohm to 1M Ohm Range, 1% and 0.5% Tolerance, 0603 Size, 0.063 W	23
SMD0805L	R0805	R0805	R38	Precision Thick Film Chip Resistor, 10 Ohm to 1M Ohm Range, 1% and 0.5% Tolerance, 0805 Size, 0.1 W	1
0603r	Res2	Res2	R42, R43, R44, R45, R48, R49, R50, R51, R52	Resistor	9
0603r	resistor	Res	R46, R47, R53		3
0603r	R0603	R0603	R54, R57, R58, R59, R60, R61, R62, R63, R64	Precision Thick Film Chip Resistor, 10 Ohm to 1M Ohm Range, 1% and 0.5% Tolerance, 0603 Size, 0.063 W	9
0603r	NC	Res	R55, R56		2
3.96-2	switch_side	switch_side	SW		1
SOT23-5	SN74LVC1G17	SN74LVC1G17	U3, U6, U7, U8, U9, U10, U14, U15	SN74LVC1G17	8
DIP16	TLP521-4	TLP521-4	U4, U5		2
AMS1117	1117-3.3	1117M3-3.3	U11, U17		2
LQFP144	STM32F103ZET6	STM32F103ZET6	U12	STM32 ARM-based 32-bit MCU Performance Line with 512 kB Flash, 64 kB Internal RAM, -40 to +85°C Temperature, 144-Pin LQFP, Tray	1
SOP8	24c02	24c02	U13		1
SOP16	CH340G	CH340G	U16	USB2UART	1
SOT23-6	TPS562200	TPS56220	U18	2A DC/DC controller	1
TQG144_N	XC6SLX8-	2TQG144C	U19	Spartan-6 LX 1.2V FPGA, 102 User I/Os, 144-Pin TQFP (0.5mm Pitch), Speed Grade 2, Commercial Grade, Pb-Free	1
SOIC8	M25P16-VMN3PB	M25P16-VMN3PB	U20		1
XTAL7050	CLK	CLK	U21		1
SOT-223	1117-3.3	1117M3-3.3	U22		1
SOT-223	1117-1.2	1117M3-3.3	U23		1
MINIUSB-1	MINIUSB	MINIUSB	USB	MINIUSB	1
XTAL_HC-49S	XTAL_Norm	XTAL_Norm	XTAL1		1
XTAL_HC-49S	8MHz	XTAL	Y1	Crystal Oscillator	1
Approved					188
Notes					