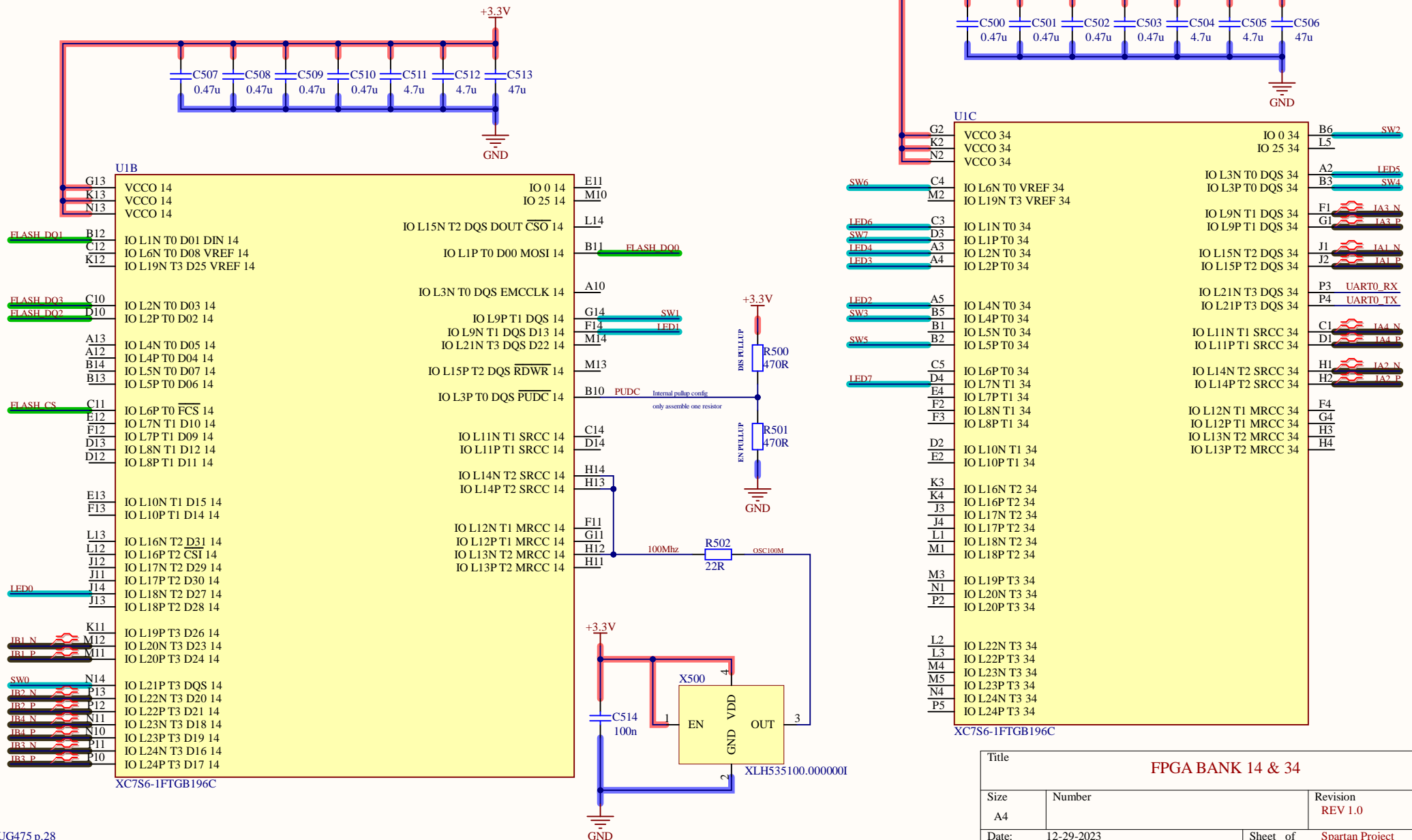


FPGA BANK 14 & 34:

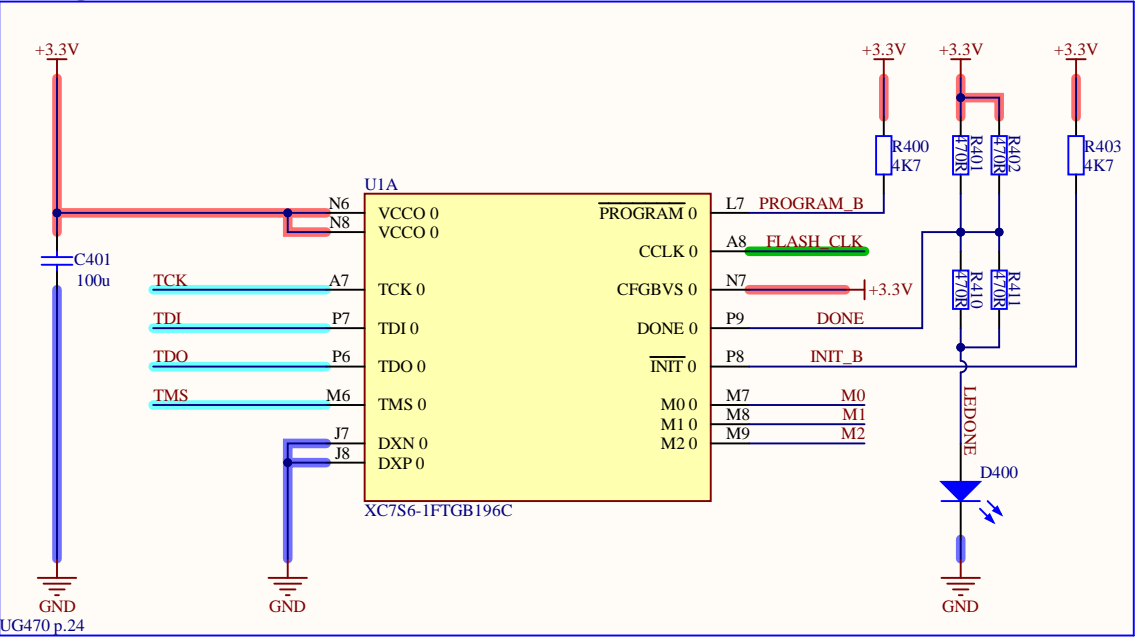


UG475 p.28

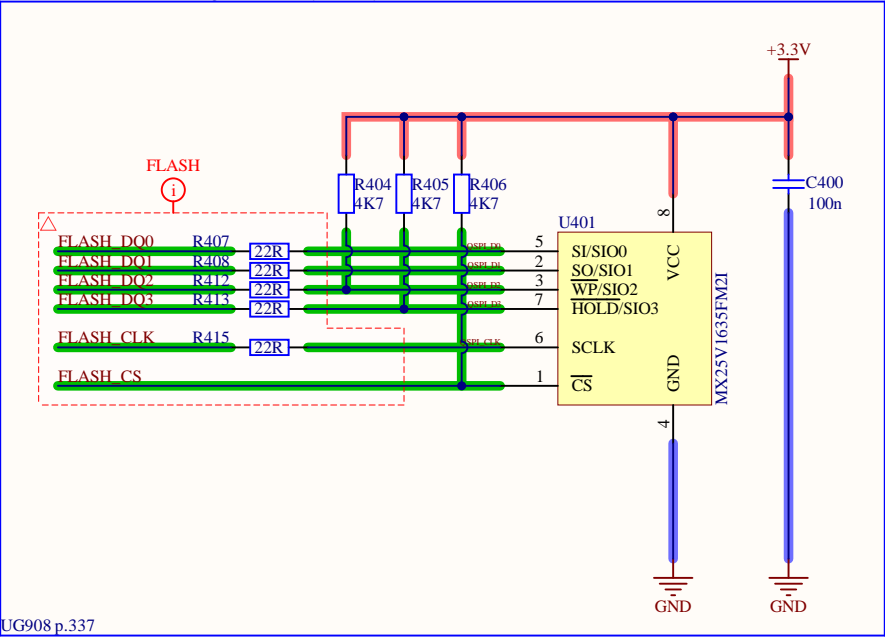
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FPGA BANK 14 & 34			
Size	Number	Revision	
A4		REV 1.0	
Date:	12-29-2023	Sheet of	Spartan Project
File:	C:\Users\...\FPGA_BANKS.SchDoc	Drawn By:	Louis Van Lommel

FPGA CONFIGURATION:

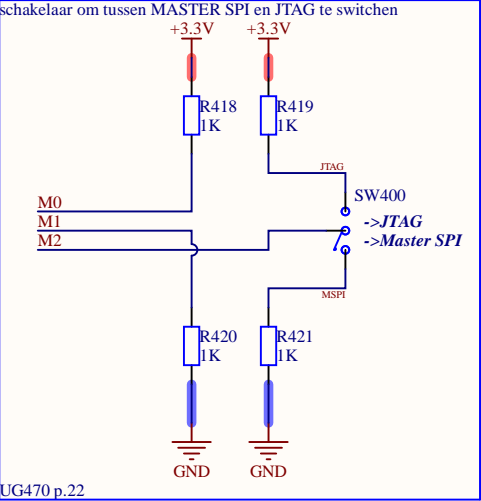
Configuration Pins



FLASH Memory



Bootmode Pins



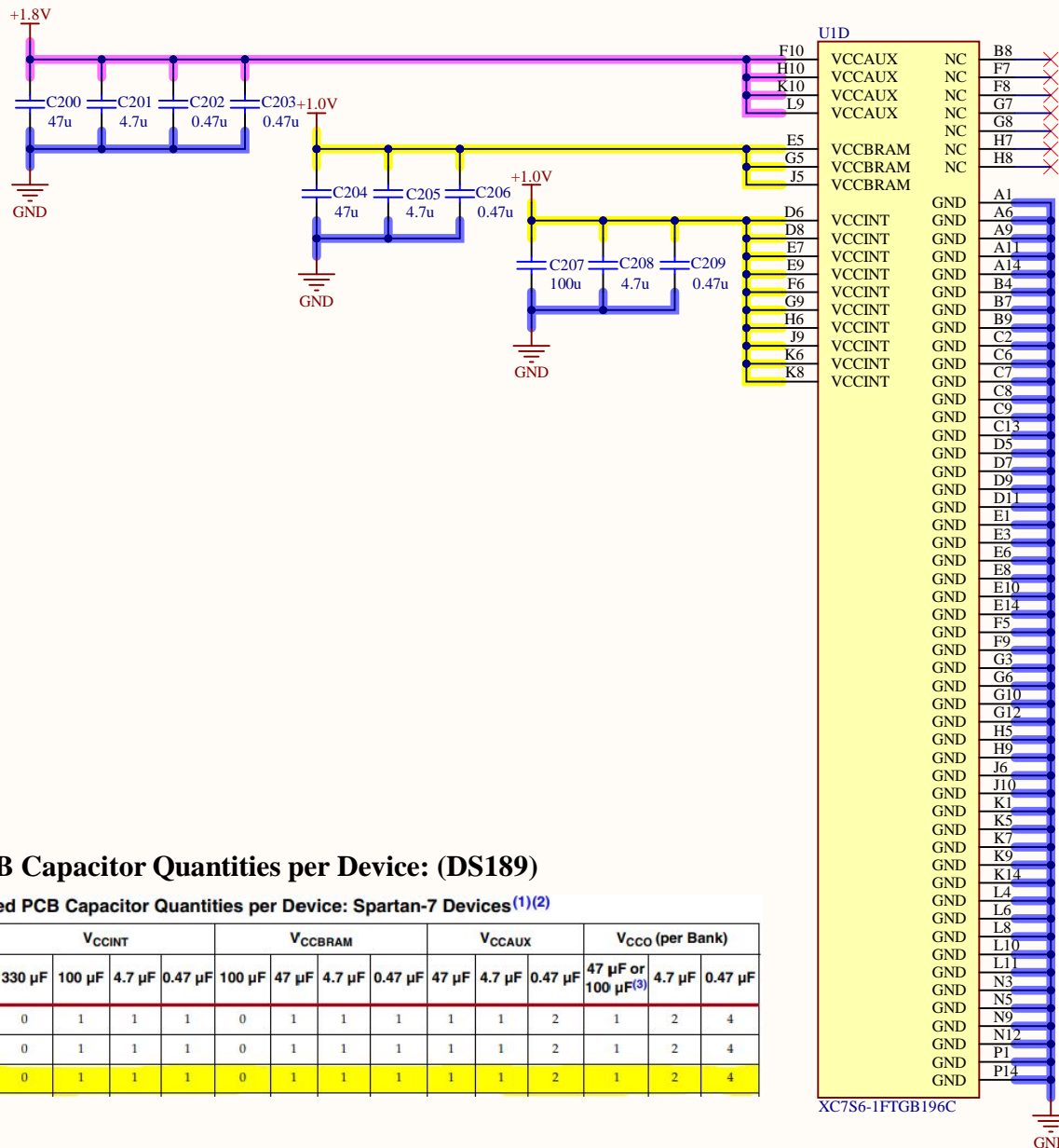
CONFIGURATION MODE PINS: (UG470)

Table 2-2: Configuration Mode Pins (Table 1 of 2)

Pin Name	Bank	JTAG (Only)	Slave Serial	Master Serial	Master SPI		
					x1	x2	x4
CFGBVS	0	CFGBVS	CFGBVS	CFGBVS	CFGBVS	CFGBVS	CFGBVS
M[2:0]	0	M[2:0]=101	M[2:0]=111	M[2:0]=000	M[2:0]=001	M[2:0]=001	M[2:0]=001

Title			
Size	Number	Revision	
A4		REV 1.0	
Date:	12-29-2023	Sheet of	Spartan Project
File:	C:\Users\...\FPGA_CONFIG.SchDoc	Drawn By:	Louis Van Lommel

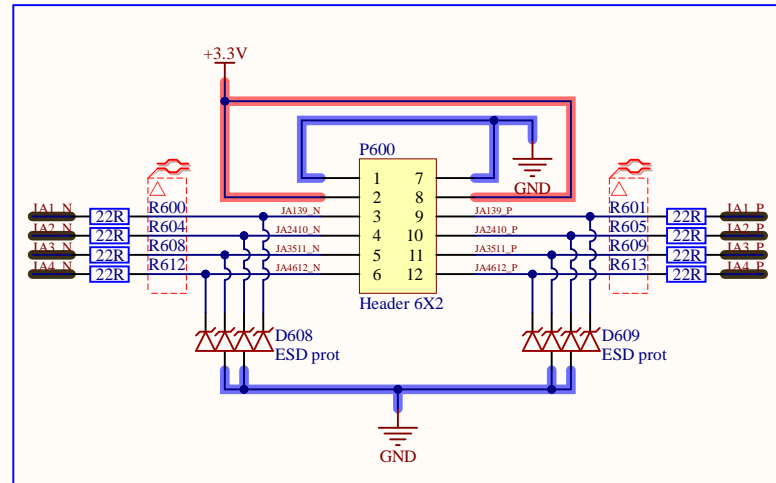
FPGA POWER:



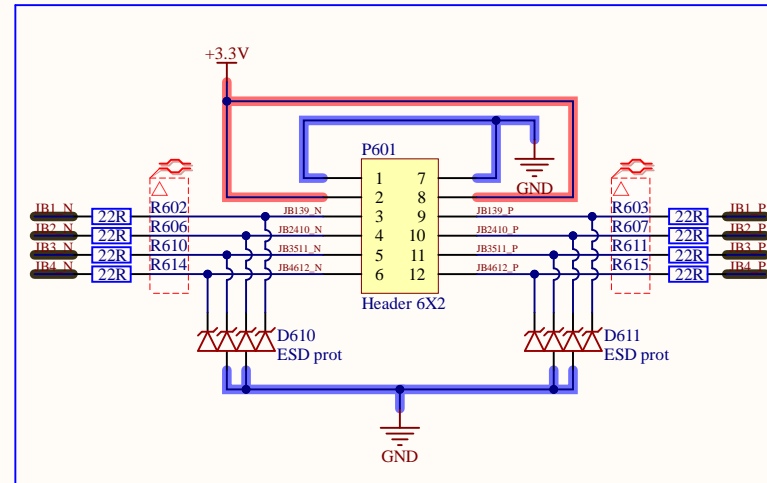
Title		
Size A4	Number	Revision REV 1.0
Date: 12-29-2023	Sheet of	Spartan Project
File: C:\Users\...\FPGA_POWER.SchDoc	Drawn By:	Louis Van Lommel

GPIO'S, Headers & Mechanical:

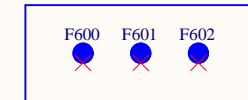
Header 1



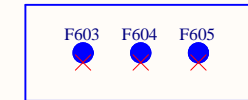
Header 2



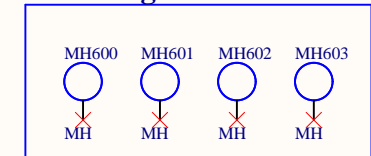
Fiducials TOP



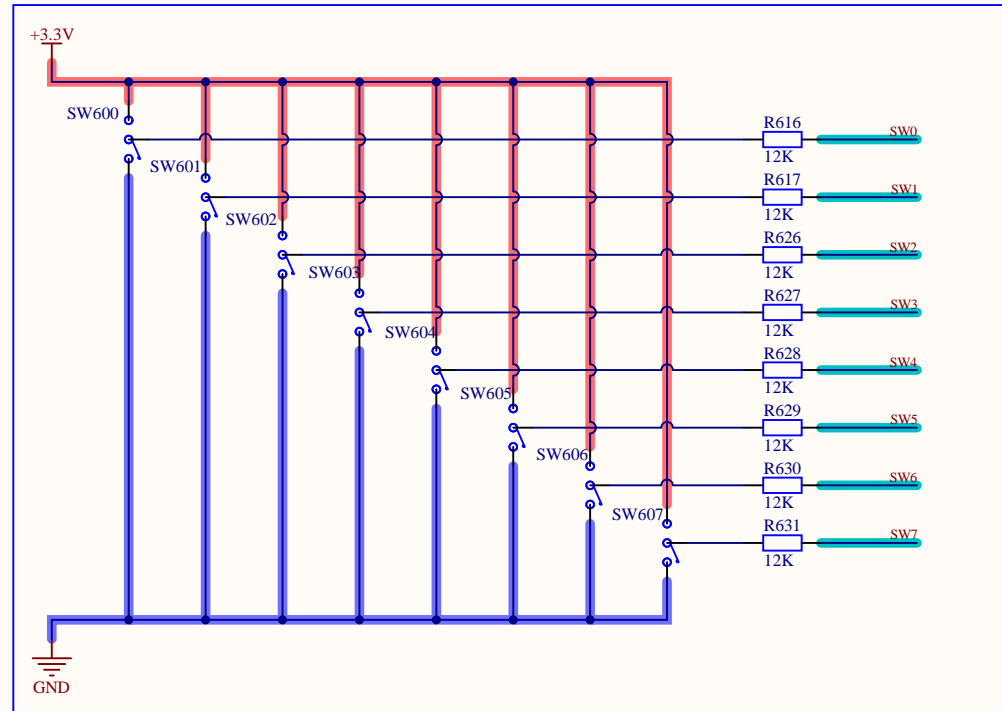
Fiducials BOT



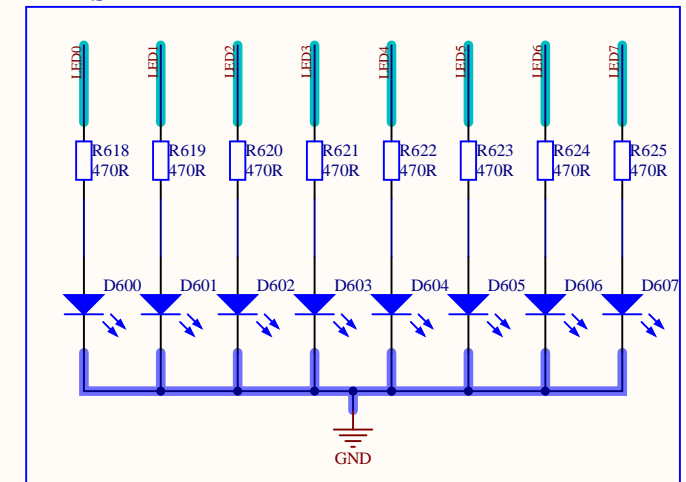
Mounting Holes



Switches

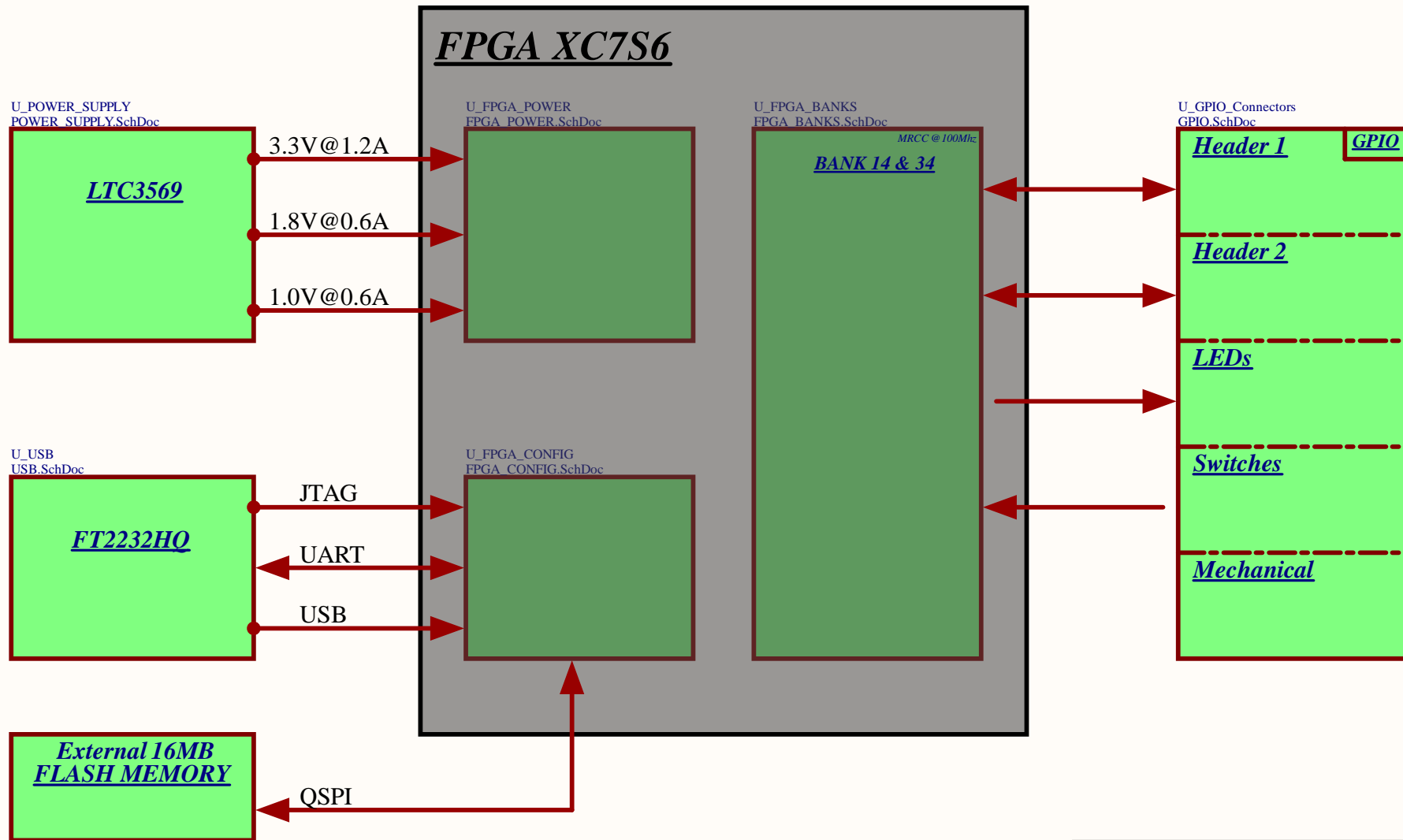


LEDS



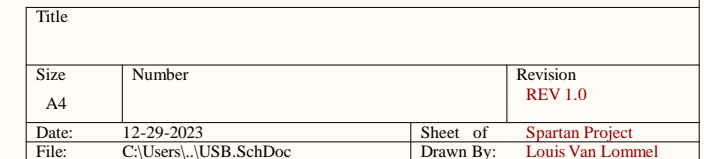
Title		
Size	Number	Revision
A4		REV 1.0
Date:	12-29-2023	Sheet of
File:	C:\Users\...\GPIO.SchDoc	Drawn By:

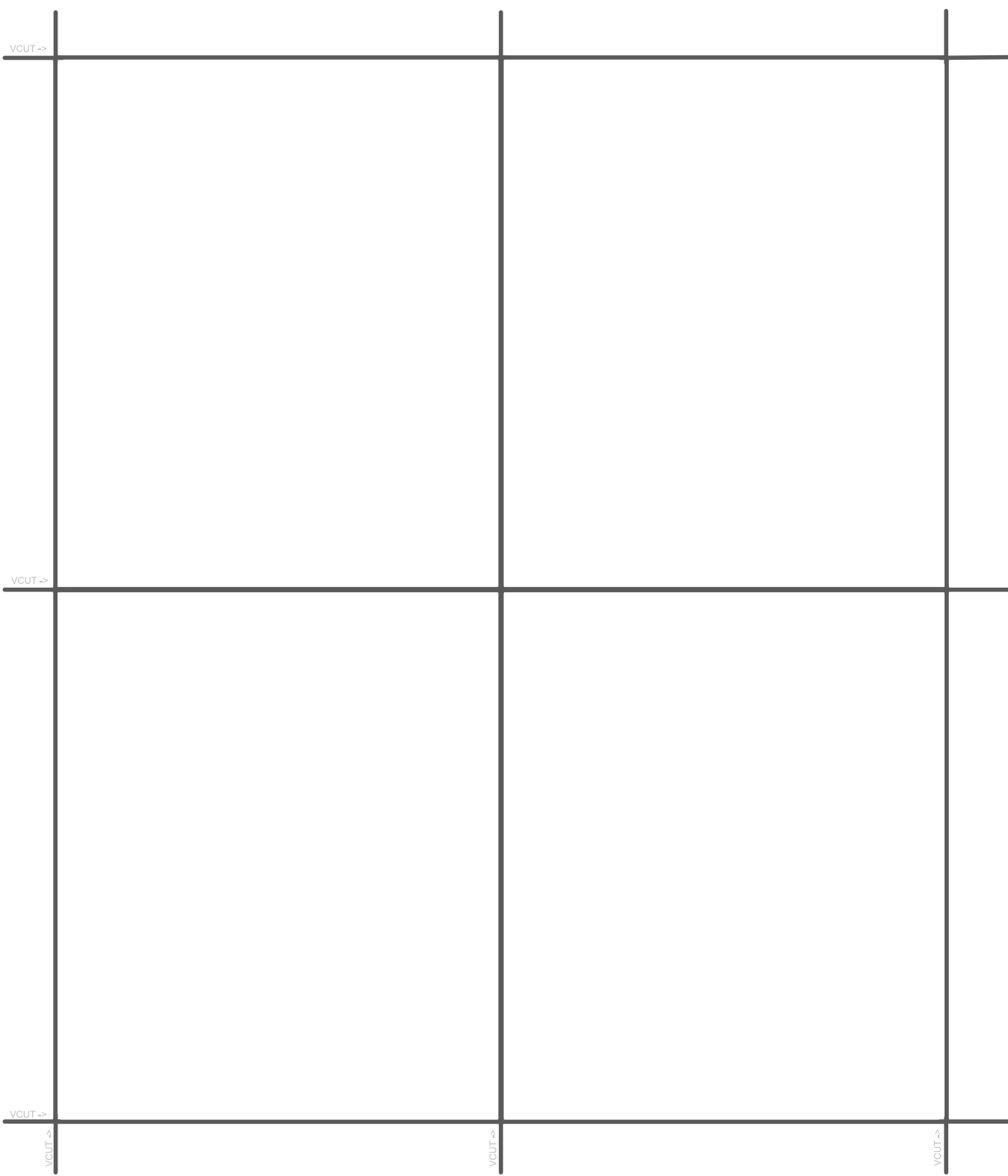
SPARTAN FPGA DEVELOPMENT BOARD



Title			
Size	Number		Revision
A4			REV 1.0
Date:	12-29-2023	Sheet of	Spartan Project
File:	C:\Users\...\Spartan.SchDoc	Drawn By:	Louis Van Lommel

FTDI USB to UART/JTAG





Comment	Description	Designator	Footprint	LibRef	Quantity	Value
10n	Capacitor	C100	CAP_0603	Cap	1	10n
100n	Capacitor	C101, C300, C301, C302, C303, C304, C305, C306, C308, C309, C311, C312, C314, C400, C514	CAP_0603	Cap	15	100n
22u	Capacitor	C102	CAP_1210	Cap	1	22u
20pF	Capacitor	C103, C105, C107	CAP_0603	Cap	3	20p
10uF	Capacitor	C104, C108	CAP_1210	Cap	2	10u
15uF	Capacitor	C106	CAP_1210	Cap	1	15u
4.7u	Capacitor	C109, C307, C310, C313	CAP_0603	Cap	4	4.7u
47uF	Capacitor	C200, C204, C506, C513	CAP_0603	Cap	4	47u
4.7u	Capacitor	C201, C205, C208, C504, C505, C511, C512	CAP_0402	Cap	7	4.7u
0.47uF	Capacitor	C202, C203, C206, C209, C500, C501, C502, C503, C507, C508, C509, C510	CAP_0402	Cap	12	0.47u
100uF	Capacitor	C207, C401	CAP_0805	Cap	2	100u
USBLC6-2SO6	Very low capacitance ESD protection, 3.5 pF, -40 to 125 degC, 6-Pin SOT23, RoHS, Tape and Reel	D100	STM-SOT23-6L_V	CMP-2000-05378-1	1	
LED	Typical INFRARED GaAs LED	D101, D300, D301, D400, D600, D601, D602, D603, D604, D605, D606, D607	LED_0603	LED0	12	
ESD prot	NEXPERA BZ462A,125	D608, D609, D610, D611	SOT457	ESD prot	4	
180R	Chip Ferrite Bead, 9402, 10000 @ 100MHz, 0.650, 25%, 300mA	FB100, FB300, FB301	CAP_0805	Ferrite Bead	3	
USB B micro		J100	USB Micro B	USB micro B	1	
2.2uH	Inductor	L100, L101, L102	IND4x4mm	Inductor	3	2.2u
Header 6X2	Header, 6-Pin, Dual row	P600, P601	HDR2x6_CEN	Header 6X2A	2	
4K7	Resistor, DNPR103	R100, R103, R400, R403, R404, R405, R406	RES_0603	Res2	7	4K7
1K5	Resistor	R101, R300	RES_0603	Res2	2	1K5
470	Resistor	R102, R310, R311, R401, R402, R410, R411, R500, R616, R619, R620, R621, R622, R623, R624, R625	RES_0603	Res2	16	470R
3K	Resistor	R104	RES_0603	Res2	1	3K
12K	Resistor	R105, R106, R305, R306, R307, R308, R309, R616, R617, R626, R627, R628, R629, R630, R631	RES_0603	Res2	15	12K
10K	Resistor	R107	RES_0603	Res2	1	10K
22	Resistor	R301, R302, R303, R304, R313, R407, R408, R412, R413, R415, R502, R600, R601, R602, R603, R604, R605, R606, R607, R608, R609, R610, R611, R612, R613, R614, R615	RES_0603	Res2	27	22R
1K	Resistor	R312, R418, R419, R420, R421	RES_0603	Res2	5	1K
470 DNP	Resistor Enable pullup BANK FPGA	R501	RES_0603	Res2	1	470R
SPDT SW		SM600, SM600, SM601, SM602, SM603, SM604, SM605, SM606, SM607	SPDT SWITCH	SPDT SW	9	
XC7S6-1FTGB196C	XC7S6-1FTGB196C	U1	FP-XC7S6-1FTGB196C-MFG	CMP-17530-000008-1	1	
LTC3569EUDITRFBF	Triple Buck Regulator with 1.2 A and Two 600 mA Outputs and Individual Programmable References, 20-pin QFN (UD-20), -40 to 125 degC, Pb-Free, Tape and Reel	U100	LT-UD-20_N	CMP-0492-02156-1	1	
FT232RL-HQ-Reel	IC USB HS DUAL UART/RIFO 64-QFN	U300	FP-FT232RL-HQ-Reel-MFG	CMP-0078-00004-5	1	
93LC56B SN	2K, 128x16-bit, 2.5V Microwire Serial EEPROM, 8-Pin SOIC 150mil, Commercial Temperature	U301	SOIC8	MEM-EEPROM-93AA46BP-8	1	
MC25V1635FM2	Flash Memory, Serial NOR, 16 Mbit, 2M x 8bit, SPI, SOP, 8 Pins	U401	SOP-8	MACRONIX MC25V1635FM2	1	
EC2620TS-12.000M TR	12Mhz oscillator	X300	7x5mm Crystal	Oscillator	1	
XLH535100.0000001	12Mhz oscillator	X500	5X3.2MM CR/STAL	Oscillator	1	