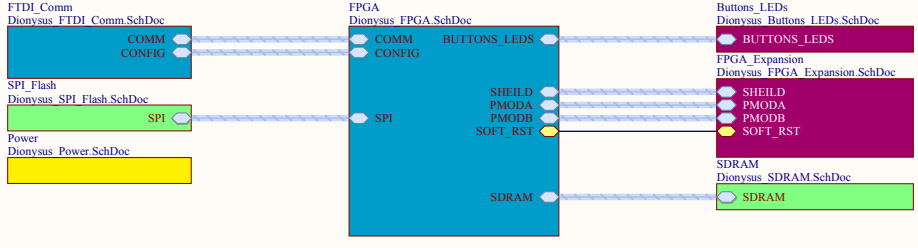
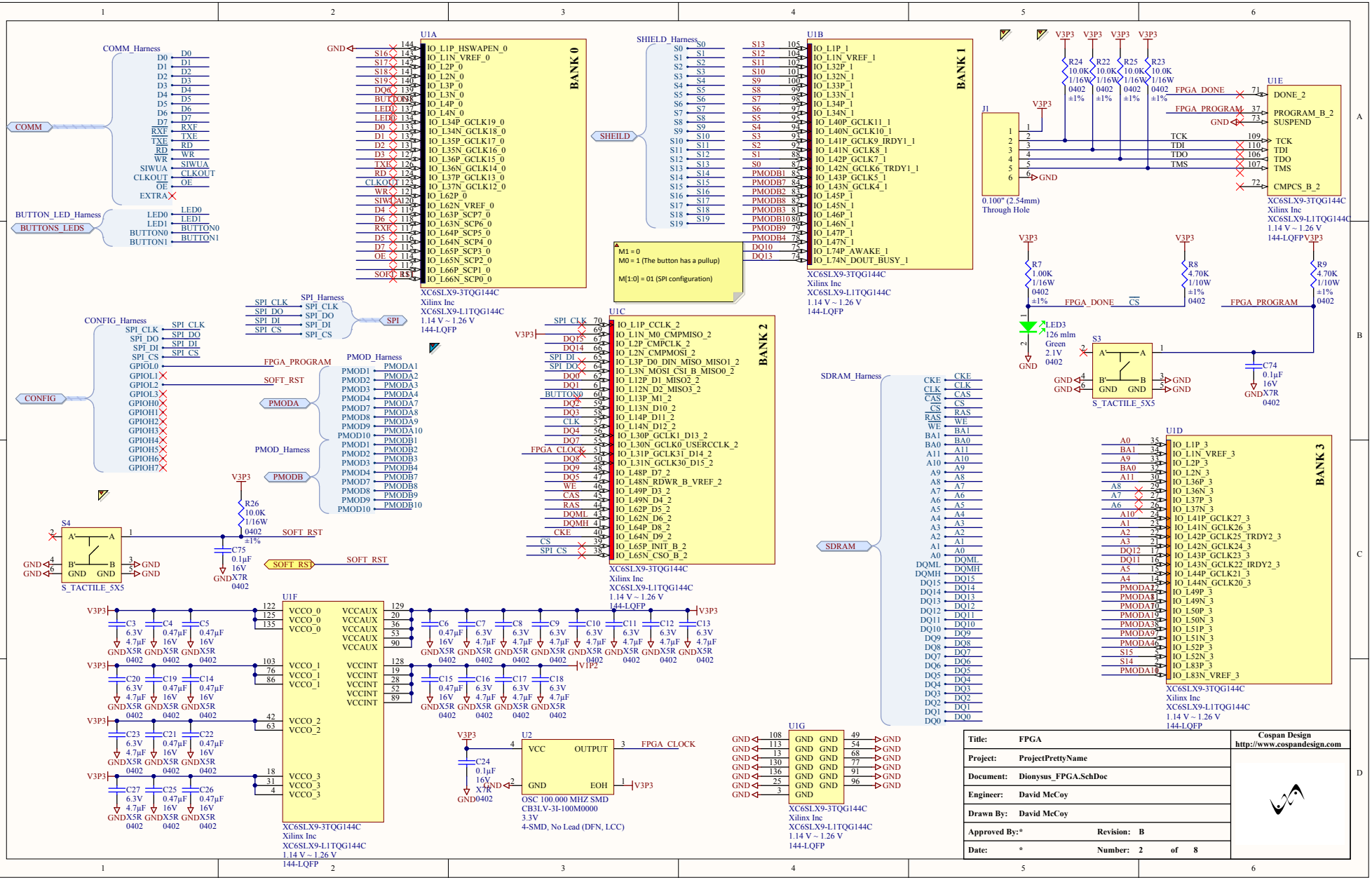
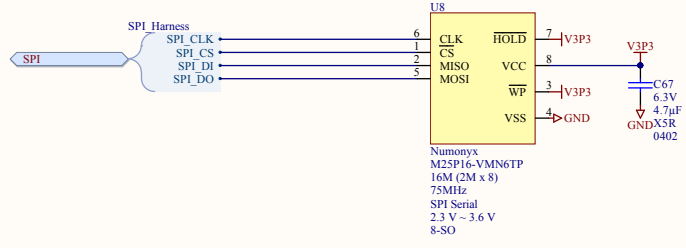


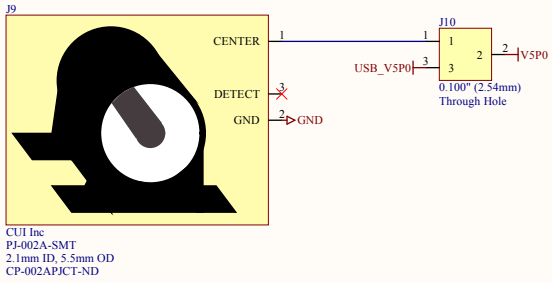
MNT1 MNT2 MNT3 MNT4

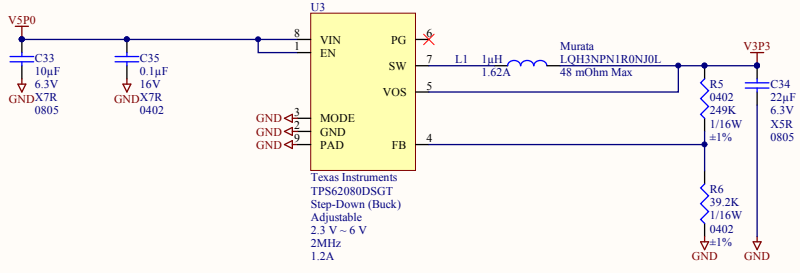
Title:	**Block Diagram**		**Cospan Design** **http://www.cospandesign.com**
Project:	**ProjectPrettyName**		
Document:	**Dionysus_Main.SchDoc**		
Engineer:	**David McCoy**		
Drawn By:	**David McCoy**		
Approved By:	*	**Revision:** *	
Date:	*	**Number:** 1 of 8	

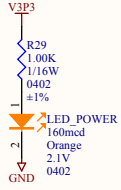

COMM_Harness
COMM
BUTTON_LED_Harness
BUTTONS_LEDS
U1A
BANK 0
XC6SLX9-3TQG144C
Xilinx Inc
XC6SLX9-L1TQG144C
1.14 V ~ 1.26 V
144-LQFP
SHIELD_Harness
SHEILD
U1B
BANK 1
M1 = 0
M0 = 1 (The button has a pullup)
M[1:0] = 01 (SPI configuration)
SPI_Harness
SPI
CONFIG_Harness
CONFIG
FPGA_PROGRAM
SOFT_RST
PMOD_Harness
PMODA
PMODB
U1C
BANK 2
SDRAM_Harness
SDRAM
U1D
BANK 3
U1E
J1
0.100" (2.54mm)
Through Hole
FPGA_DONE
FPGA_PROGRAM
TCK
TDI
TDO
TMS
CMPCS_B_2
LED3
126 mlm
Green
2.1V
0402
S_TACTILE_5X5
FPGA_CLOCK
U1F
U1G
U2
OSC 100.000 MHZ SMD
CB3LV-3I-100M0000
3.3V
4-SMD, No Lead (DFN, LCC)
Cospan Design
http://www.cospandesign.com
Title: FPGA
Project: ProjectPrettyName
Document: Dionysus_FPGA.SchDoc
Engineer: David McCoy
Drawn By: David McCoy
Approved By:*
Revision: B
Date: *
Number: 2 of 8

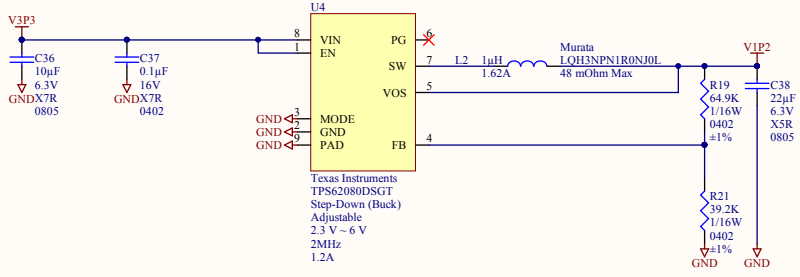


Title:	**SPI Flash**	**Cospan Design http://www.cospandesign.com**
Project:	**ProjectPrettyName**	
Document:	**Dionysus_SPI_Flash.SchDoc**	
Engineer:	**David McCoy**	
Drawn By:	**David McCoy**	
Approved By:	* **Revision:** *	
Date:	* **Number:** 3 **of** 8	

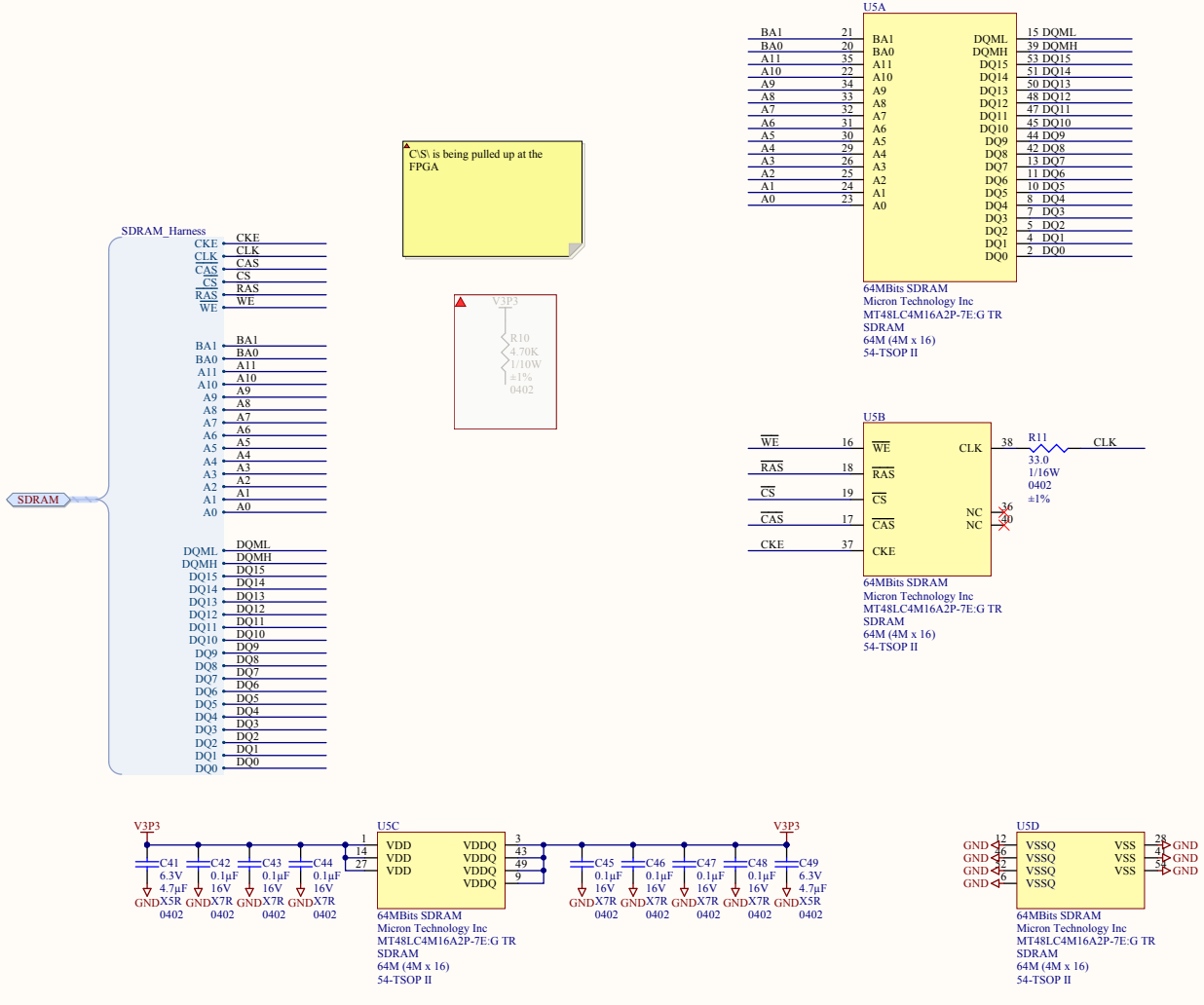




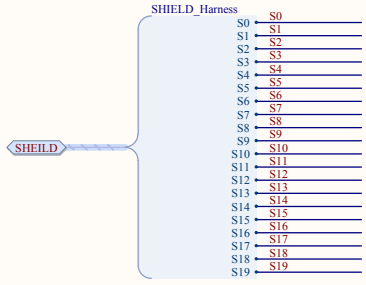


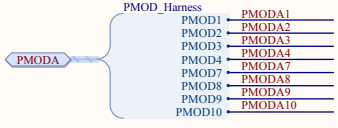


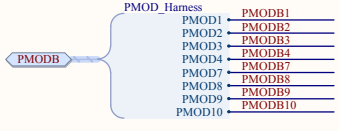
Title:	**Power**		**Cospan Design** http://www.cospandesign.com
Project:	**ProjectPrettyName**		
Document:	**Dionysus_Power.SchDoc**		
Engineer:	**David McCoy**		
Drawn By:	**David McCoy**		
Approved By:	*	**Revision:** *	
Date:	*	**Number:** 4 of 8	

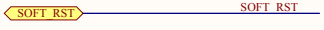


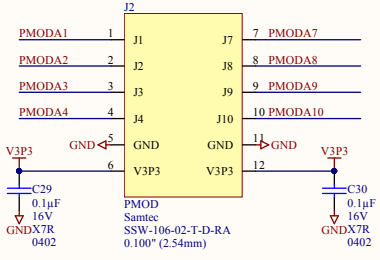
Title:	**SDRAM**		**Cospan Design** **http://www.cospandesign.com**
Project:	**ProjectPrettyName**		
Document:	**Dionysus_SDRAM.SchDoc**		
Engineer:	**David McCoy**		
Drawn By:	**David McCoy**		
Approved By:	*	**Revision:** *	
Date:	*	**Number:** **5** **of** **8**	

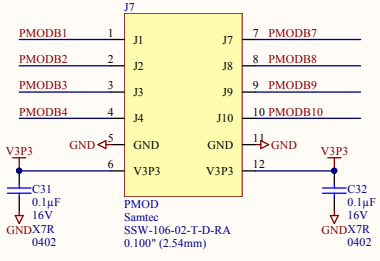


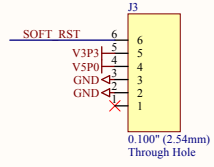


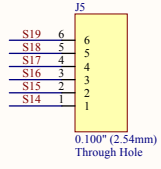


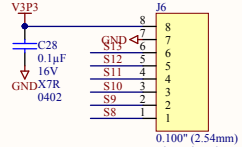


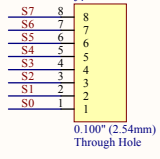




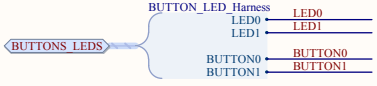


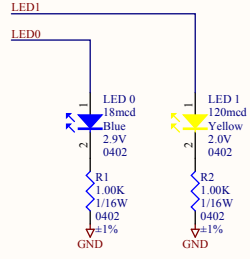


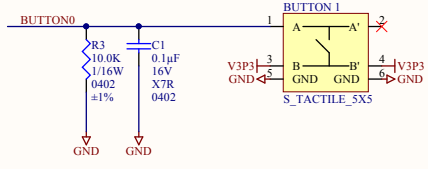


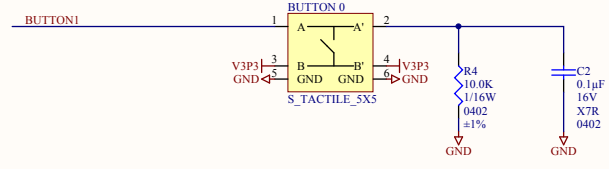


Title:	**FPGA Expansion**		**Cospan Design** **http://www.cospandesign.com**
Project:	**ProjectPrettyName**		
Document:	**Dionysus_FPGA_Expansion.SchDoc**		
Engineer:	**David McCoy**		
Drawn By:	**David McCoy**		
Approved By:	*	**Revision:** *	
Date:	*	**Number:** 6 of 8	





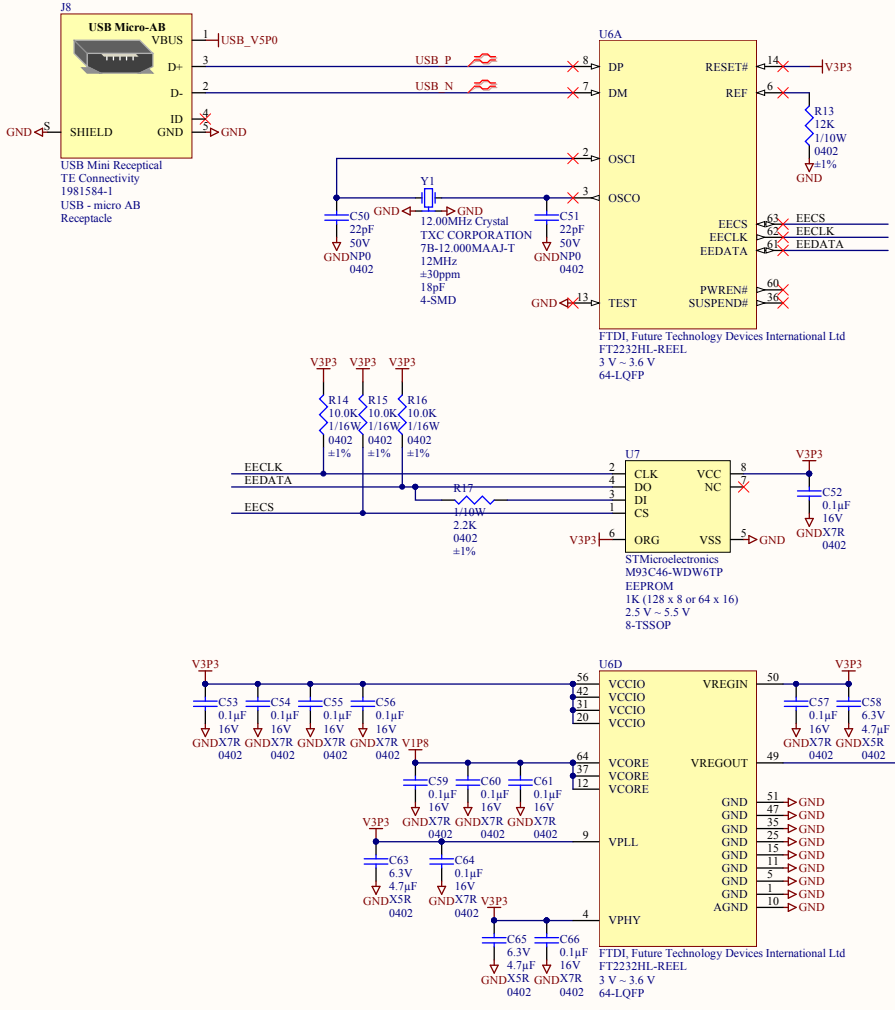




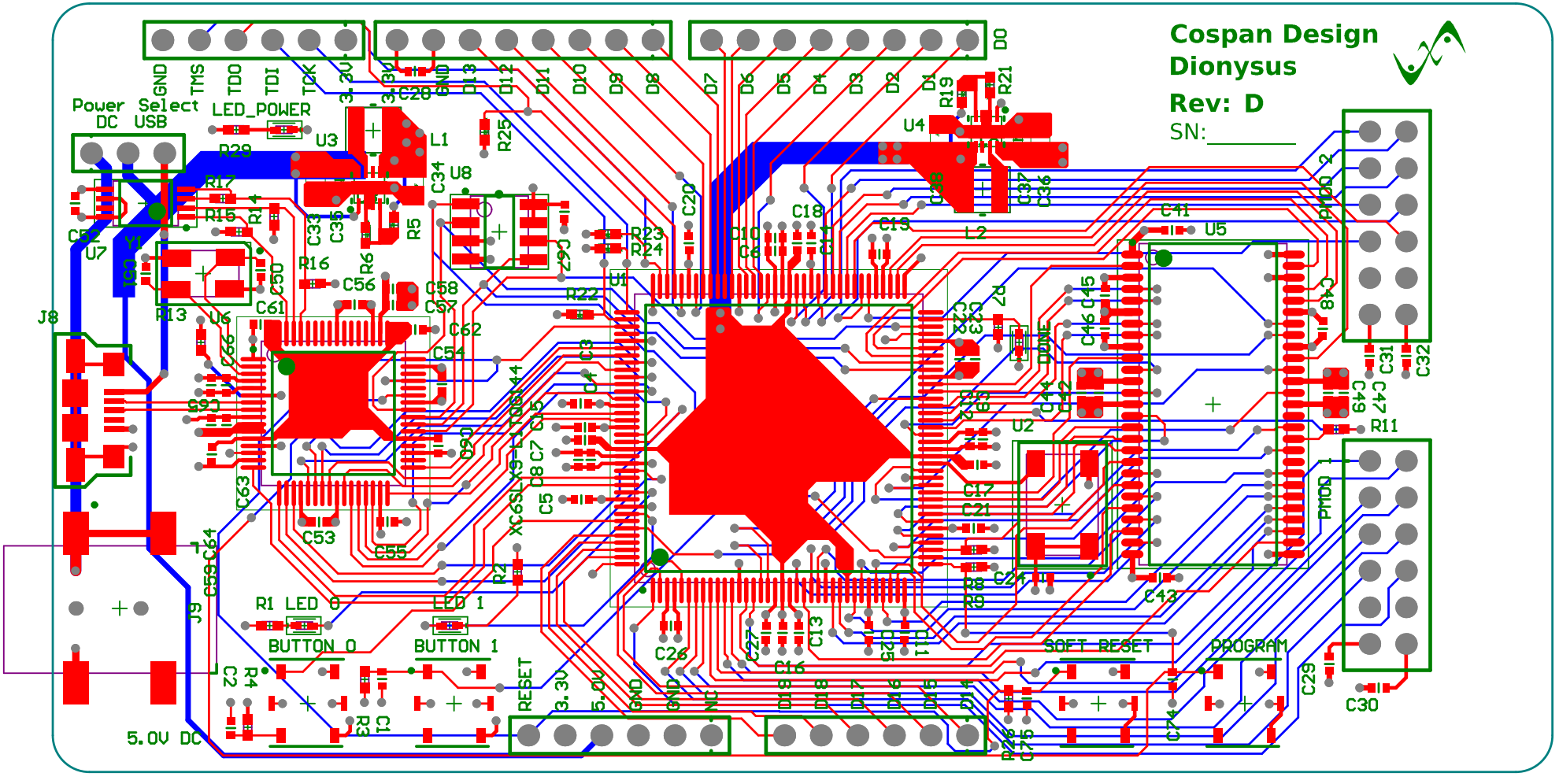
Revision Notes:

Removed the series resistance with the Buttons

Title:	**Leds and Buttons**		**Cospan Design** **http://www.cospandesign.com**
Project:	**ProjectPrettyName**		
Document:	**Dionysus_Buttons_LEDs.SchDoc**		
Engineer:	**David McCoy**		
Drawn By:	**David McCoy**		
Approved By:	*	**Revision:** **B**	
Date:	*	**Number:** **7** **of** **8**	



Title:	**USB Communication**		**Cospan Design** http://www.cospandesign.com
Project:	**ProjectPrettyName**		
Document:	**Dionysus_FTDI_Comm.SchDoc**		
Engineer:	**David McCoy**		
Drawn By:	**David McCoy**		
Approved By:	*	**Revision:** *	
Date:	*	**Number:** 8 of 8	


Cospan Design
Dionysus
Rev: D
SN:_____
Power Select
DC USB
LED_POWER
BUTTON_0
BUTTON_1
SOFT_RESET
PROGRAM
5.0V DC
XC6SLX9-TQG144
PMOD 1
PMOD 2

LibRef	Comment	Description	Designator	Footprint	Manufacturer	Manufacturer Part Number	Quantity
C_0402_0.1UF_16V	0.1uF	CAP CER .10UF 16V X7R 0402	C1, C2, C24, C28, C29, C30, C31, C32, C35, C37, C42, C43, C44, C45, C46, C47, C48, C52, C53, C54, C55, C56, C57, C59, C60, C61, C64, C66, C74, C75	C_ERA-0402	TDK Corporation	C1005X7R1C104K	30
C_0402_0.47UF	0.47uF	CAP CER .47UF 16V X5R 0402	C4, C5, C6, C14, C15, C19, C21, C22, C25, C26	C_ERA-0402	TDK Corporation	C1005X5R1C474K	10
C_0402_4.7UF	4.7uF	CAP CER 4.7UF 6.3V X5R 0402	C3, C7, C8, C9, C10, C11, C12, C13, C16, C17, C18, C20, C23, C27, C41, C49, C58, C62, C63, C65, C67	C_ERA-0402	Murata Electronics North America	GRM155R60J475ME87D	21
C_0402_22PF_50V	22pF	CAP CER 22PF 50V NP0 0402	C50, C51	C_ERA-0402	TDK Corporation	C1005C0G1H220F	2
C_0805_10UF_6.3V	10uF	CAP CER 10UF 6.3V X7R 10% 0805	C33, C36	C_ERA-0805	Taiyo Yuden	JMK212BJ106KD-T	2
C_0805_22UF_6.3V	22uF	CAP CER 22UF 6.3V X7R 10% 0805	C34, C38	C_ERA-0805	AVX Corporation	08056D226MAT2A	2
J_BARREL_JACK_2.1	Barrel Jack	CONN POWER JACK 2.1X5.5MM SMD	J9	PJ-002BH-SMT	CUI Inc	PJ-002A-SMT	1
J_HDR1X3_JUMPER_SELECT	J_HDR1X3_JUMPER_SELECT	CONN HEADER .100" 3POS TIN PCB	J10	HDR_1X3	Samtec	TSW-103-07-T-S	1
J_HDR1X6_THRHOLE_VERT	J_HDR1X6_THRHOLE_VERT	CONN HEADER .100" 12POS TIN PCB	J1	HDR_1X6	Samtec	TSW-106-07-T-S	1
J_HDR1X6_THRHOLE_VERT_FEMALE	J_HDR1X6_THRHOLE_VERT_FEMALE	CONN HEADER FEMALE 6POS .1" TIN	J3, J5	HDR_1X6 - FEMALE	Samtec	SSW-106-01-T-S	2
J_HDR1X8_THRHOLE_VERT_FEMALE	J_HDR1X8_THRHOLE_VERT_RECPT	CONN HEADER FEMALE 8POS .1" TIN	J4, J6	HDR_1X8 - FEMALE	Samtec	SSW-108-01-T-S	2
J_PMOD	PMOD	CONN FEMALE 12POS DL .1" R/A TIN	J2, J7	PMOD	Samtec	SSW-106-02-T-D-RA	2
J_USB_MICRO_AB	USB Mini Receptical	CONN RCPT MICRO USB TYPE AB	J8	MICRO_USB_RECEPTICAL	TE Connectivity	1981584-1	1
LED_BLUE_0402	LED_BLUE_0402	LED 1X0.5MM 470NM BL WTR CLR SMD	LED 0	DIOM1005X07L_BLUE	Panasonic - SSG	LNJ947W8CRA	1
LED_GRN_0402	LED_GRN_0402	LED 1X0.5MM 570NM GN WTR CLR SMD	LED3	DIOM1005X07L_GREEN	Kingbright Corp	APHHS1005CGCK	1
LED_ORN_0402	LED_ORN_0402	LED 1X0.5MM 601NM ORN WTRCLR SMD	LED_POWER	DIOM1005X07L_ORANGE	Kingbright Corp	APHHS1005SECK	1
LED_YLW_0402	LED_YLW_0402	LED 1X0.5MM 590NM YW WTR CLR SMD	LED 1	DIOM1005X07L_YELLOW	Kingbright Corp	APHHS1005SYCK	1
L_1.0UH_1.62A	1.0uH	INDUCTOR POWER 1.0UH 1620MA 1212	L1, L2	INDNRH1212	Murata	LQH3NPN1R0NJ0L	2
R_0402_1.0K	1.0k Ohms	RES 1.00K OHM 1/16W 1% 0402 SMD	R1, R2, R7, R29	ERA-0402	Yageo	RC0402FR-071KL	4
R_0402_2.2K	2.2k Ohms	RES 2.20K OHM 1/10W 1% 0402 SMD	R17	ERA-0402	Yageo	RC0402FR-072K2L	1
R_0402_4.70K	4.7k Ohms	RES 4.70K OHM 1/10W 1% 0402 SMD	R8, R9	ERA-0402	Yageo	RC0402FR-074K7L	2
R_0402_10.0K	R_0402_10.0K	RES 10.0K OHM 1/16W 1% 0402 SMD	R3, R4, R14, R15, R16, R22, R23, R24, R25, R26	ERA-0402	Stackpole Electronics Inc	RMCF0402FT10K0	10
R_0402_12.0K	R_0402_12.0K	RES 12.0K OHM 1/16W 1% 0402 SMD	R13	ERA-0402	Panasonic - ECG	ERJ-2RKF1202X	1
R_0402_33	R_0402_33	RES 33.0 OHM 1/16W 1% 0402 SMD	R11	ERA-0402	Yageo	RC0402FR-0733RL	1
R_0402_39.2K	R_0402_39.2K	RES 39.2K OHM 1/16W 1% 0402 SMD	R6, R21	ERA-0402	Yageo	RC0402FR-0739K2L	2
R_0402_64.9K	R_0402_64.9K	RES 64.9K OHM 1/16W 1% 0402 SMD	R19	ERA-0402	Yageo	RC0402FR-0764K9L	1
R_0402_249K	R_0402_249K	RES 249K OHM 1/16W 1% 0402 SMD	R5	ERA-0402	Yageo	RC0402FR-07249KL	1
S_TACTILE_5X5	S_TACTILE_5X5	SWITCH LT 1.5MM HT 160GF SMD	BUTTON 0, BUTTON 1, S3, S4	TACTILE_BUTTON_5X5	Panasonic - ECG	EVQ-PLHA15	4
U_16MBIT_SPI_FLASH	U_16MBIT_SPI_FLASH	IC FLASH 16MBIT 75MHZ 8SOIC	U8	SOIC127P600X135-8L	Numonyx	M25P16-VMN6TP	1
U_EEPROM_M93C46-WDW6TP	EEPROM	IC EEPROM 1KBIT 2MHZ 8TSSO	U7	TSOP65P640X120-8L	STMicroelectronics	M93C46-WDW6TP	1
U_FT2232H-LQFP64	U_FT2232H-LQFP64	IC USB HS DUAL UART/FIFO 64-LQFP	U6	LQFP-64_N	FTDI, Future Technology Devices International Ltd	FT2232HL-REEL	1
U_MT48LC4M16A2P	64MBits SDRAM	IC SDRAM 64MBIT 133MHZ 54TSOP	U5	TSOP80P1180X120-54N	Micron Technology Inc	MT48LC4M16A2P-7E:GTR	1
U_OSC_100MHZ_SMD	OSC 100.000 MHZ SMD	OSC 100.0000 MHZ 3.3V SMD	U2	SMD_OSC_12MHZ	CTS-Frequency Controls	CB3LV-3I-100M0000	1
U_TPS62080	TPS62080	IC BUCK SYNC ADJ 1.2A 8WSON	U3, U4	QFN50P200X200X80-8L	Texas Instruments	TPS62080DSGT	2
U_XC6SLX9-3TQG144C	XC6SLX9-3TQG144C	IC FPAG SPARTAN 6 9K 144TQFP	U1	TQG144_N	Xilinx Inc	XC6SLX9-L1TQG144C	1
Y_SMD_12.00MHZ_18PF	12.00MHz Crystal	CRYSTAL 12.000 MHZ 18	Y1	LCCS220P500X320X10	TXC CORPORATION	7B-12.000MAAJ-T	1