MCU / FPGA / SOC Test Carrier B'd - A (Rev.A)

[1] Index

Rev	Date	Designer	Description
A	24.05.18	Ganghyeok Lim	Create design project

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[2] Overview

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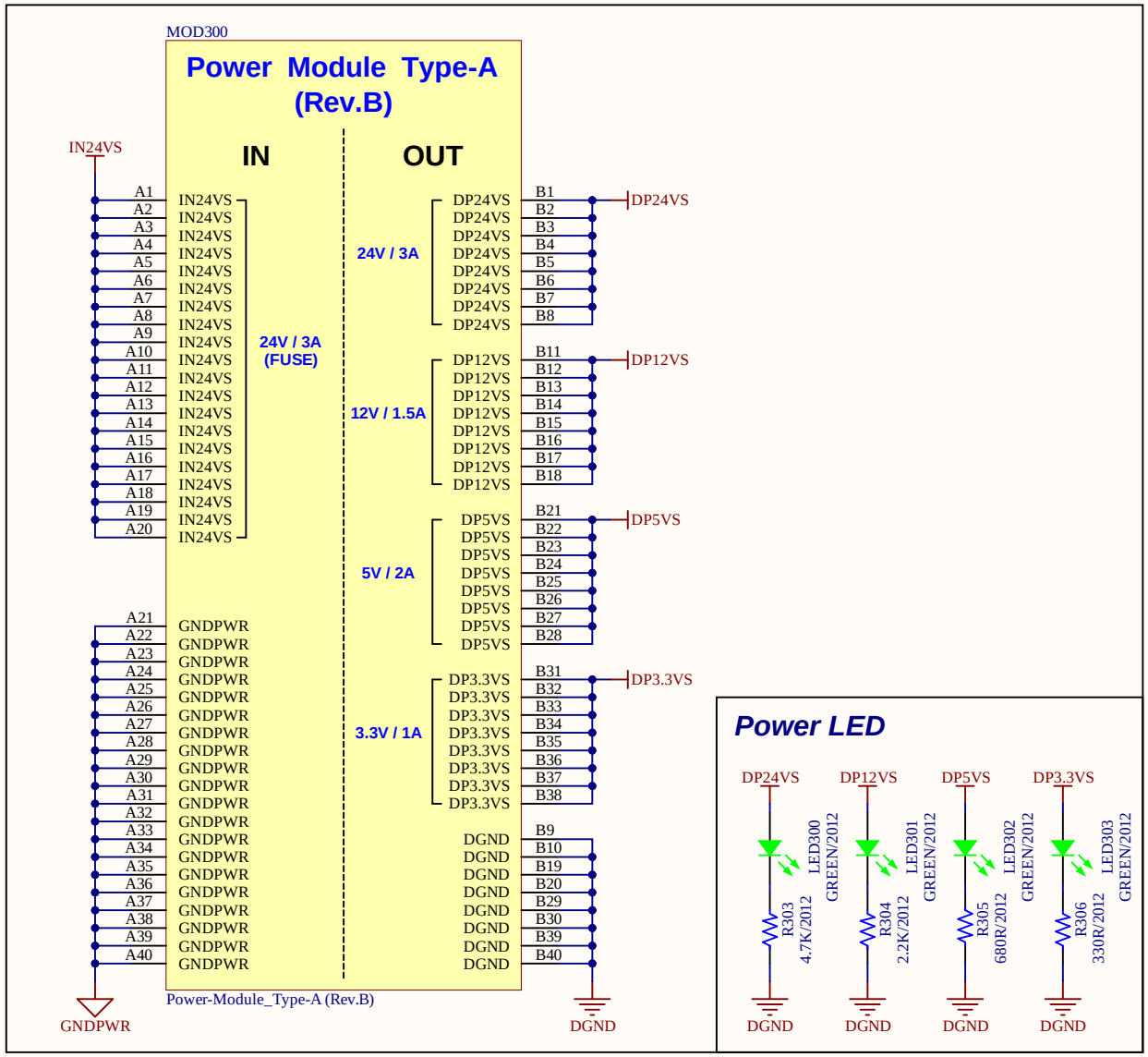
MCU / FPGA / SOC Test Carrier B'd - A (Rev.A)

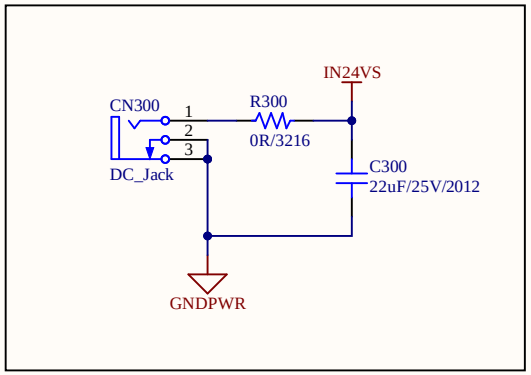
[3] Power Module Connector

Power Module Connector

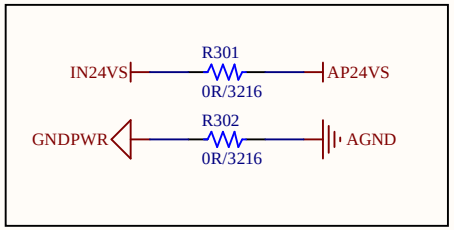


Power LED

Power Connector (24V)



Analog Power / GND



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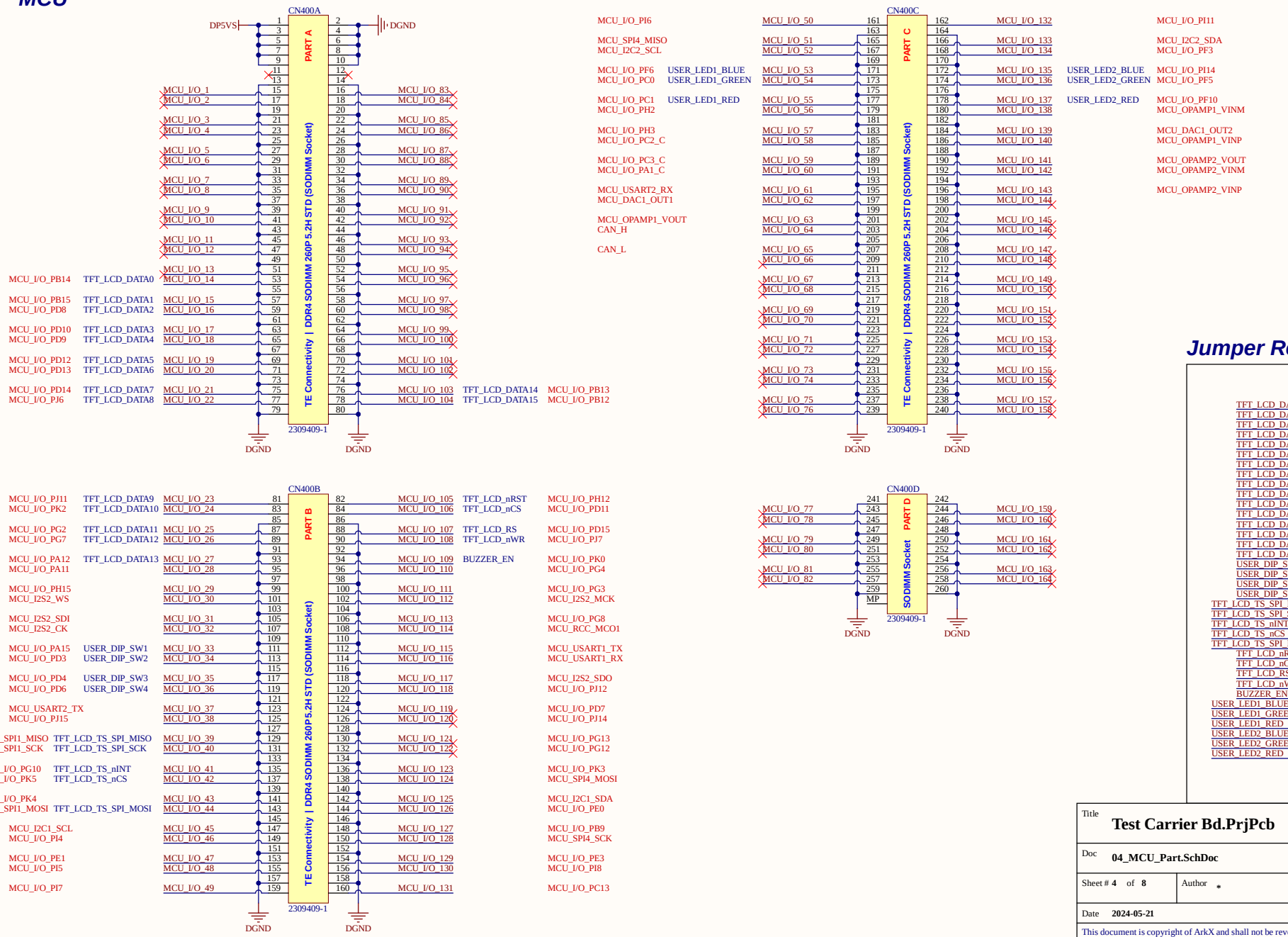
[4] MCU SOM B'd Connector

MCU

커넥터 결합시 핀 번호가 올바르게 매칭되는지 확인 필요 **(3D View 활용)**



Jumper Resistor

TFT_LCD_DATA0	R400	0R/0603	MCU_I/O_14	
TFT_LCD_DATA1	R401	0R/0603	MCU_I/O_15	
TFT_LCD_DATA2	R402	0R/0603	MCU_I/O_16	
TFT_LCD_DATA3	R403	0R/0603	MCU_I/O_17	
TFT_LCD_DATA4	R404	0R/0603	MCU_I/O_18	
TFT_LCD_DATA5	R405	0R/0603	MCU_I/O_19	
TFT_LCD_DATA6	R406	0R/0603	MCU_I/O_20	
TFT_LCD_DATA7	R407	0R/0603	MCU_I/O_21	
TFT_LCD_DATA8	R408	0R/0603	MCU_I/O_22	
TFT_LCD_DATA9	R409	0R/0603	MCU_I/O_23	
TFT_LCD_DATA10	R410	0R/0603	MCU_I/O_24	
TFT_LCD_DATA11	R411	0R/0603	MCU_I/O_25	
TFT_LCD_DATA12	R412	0R/0603	MCU_I/O_26	
TFT_LCD_DATA13	R413	0R/0603	MCU_I/O_27	
TFT_LCD_DATA14	R414	0R/0603	MCU_I/O_103	
TFT_LCD_DATA15	R415	0R/0603	MCU_I/O_104	
USER_DIP_SW1	R416	0R/0603	MCU_I/O_33	
USER_DIP_SW2	R417	0R/0603	MCU_I/O_34	
USER_DIP_SW3	R418	0R/0603	MCU_I/O_35	
USER_DIP_SW4	R419	0R/0603	MCU_I/O_36	
TFT_LCD_TS_SPI_MISO	R420	0R/0603	MCU_I/O_39	
TFT_LCD_TS_SPI_SCK	R421	0R/0603	MCU_I/O_40	
TFT_LCD_TS_nINT	R422	0R/0603	MCU_I/O_41	
TFT_LCD_TS_nCS	R423	0R/0603	MCU_I/O_42	
TFT_LCD_TS_SPI_MOSI	R424	0R/0603	MCU_I/O_44	
TFT_LCD_nRST	R425	0R/0603	MCU_I/O_105	
TFT_LCD_nCS	R426	0R/0603	MCU_I/O_106	
TFT_LCD_RS	R427	0R/0603	MCU_I/O_107	
TFT_LCD_nWR	R428	0R/0603	MCU_I/O_108	
BUZZER_EN	R429	0R/0603	MCU_I/O_109	
USER_LED1_BLUE	R434	0R/0603	MCU_I/O_53	
USER_LED1_GREEN	R435	0R/0603	MCU_I/O_54	
USER_LED1_RED	R436	0R/0603	MCU_I/O_55	
USER_LED2_BLUE	R437	0R/0603	MCU_I/O_135	
USER_LED2_GREEN	R438	0R/0603	MCU_I/O_136	
USER_LED2_RED	R439	0R/0603	MCU_I/O_137	

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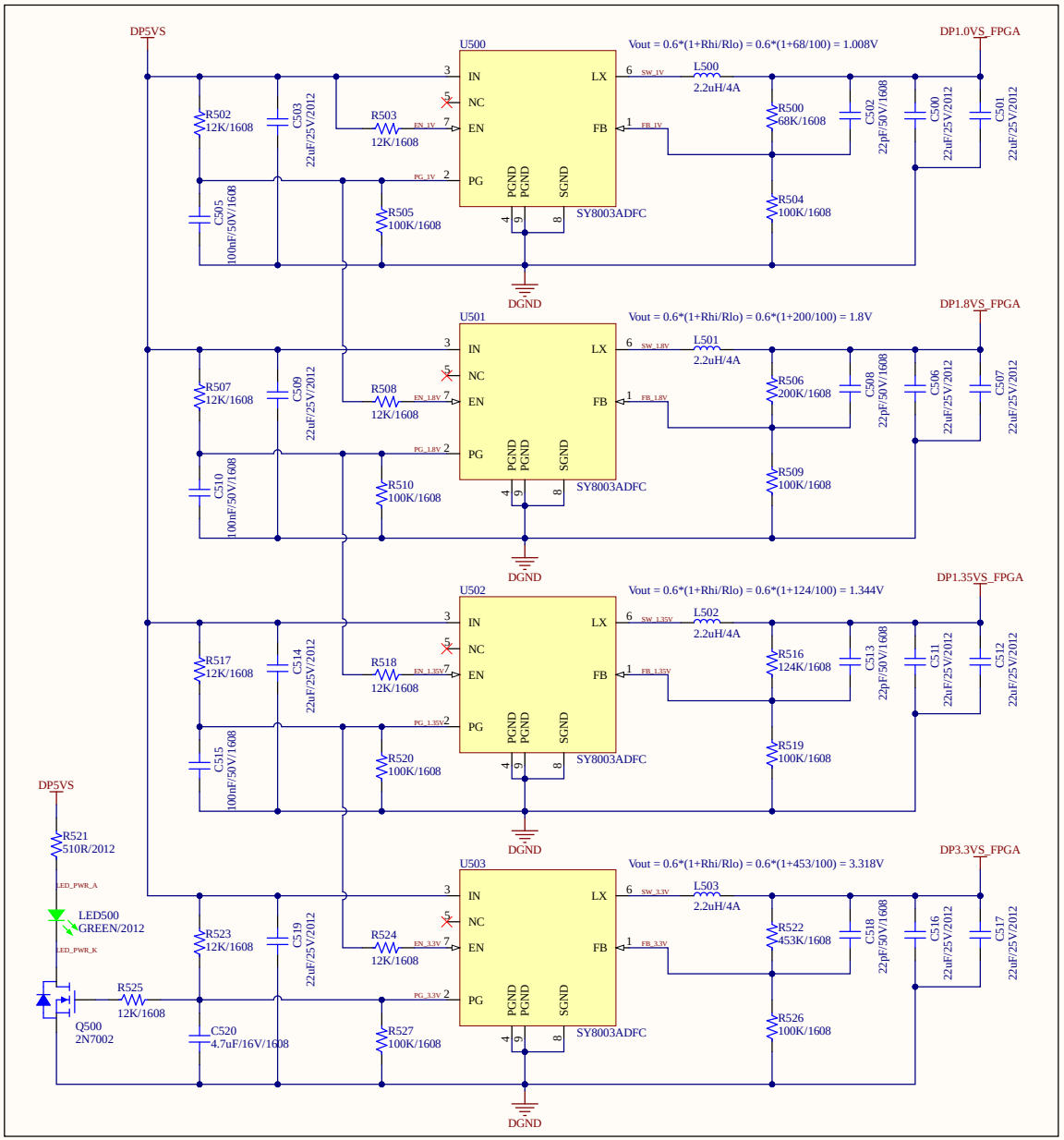
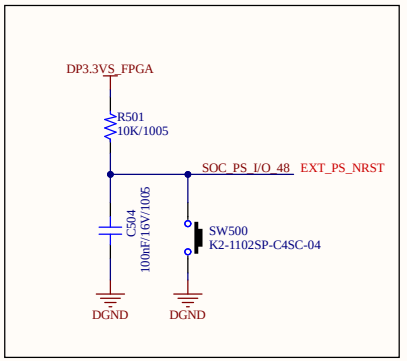
[5] FPGA / SOC Power

Buck Converters

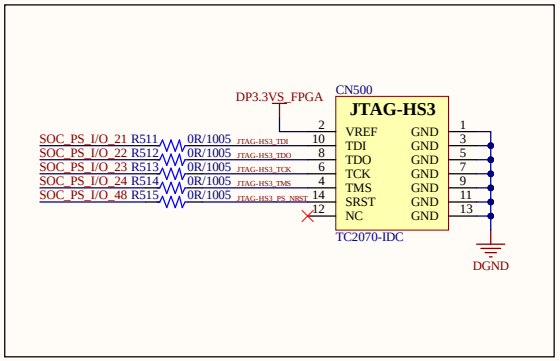
Power Sequence : +1V → +1.8V → +1.35V → +3.3V



SOC's PS_NRST



FPGA/SOC JTAG Connector



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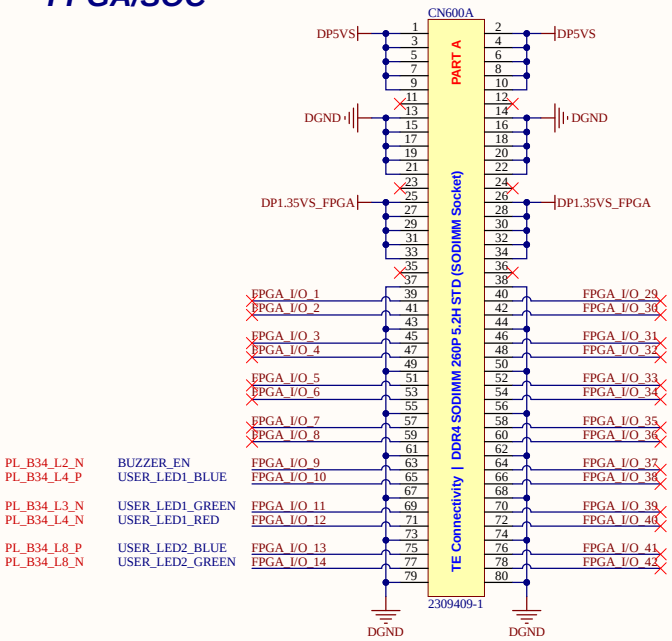
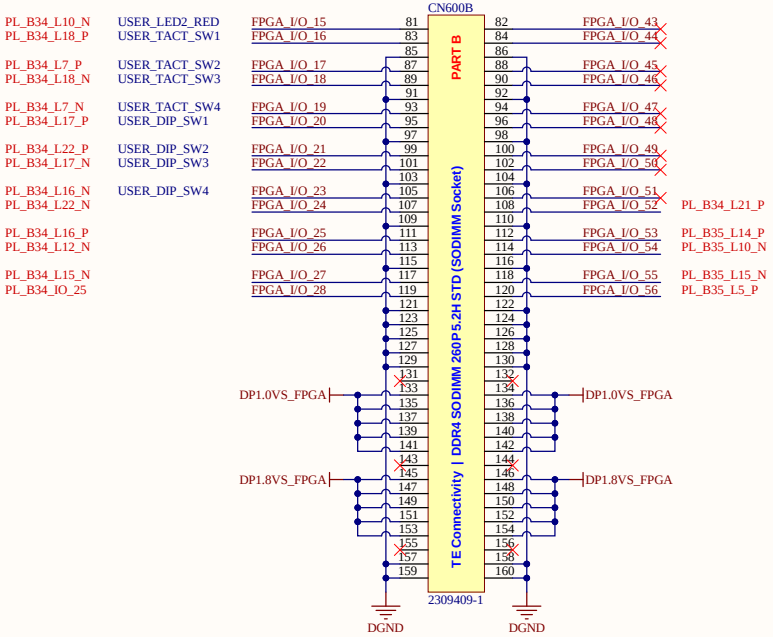
MCU / FPGA / SOC Test Carrier B'd - A (Rev.A)

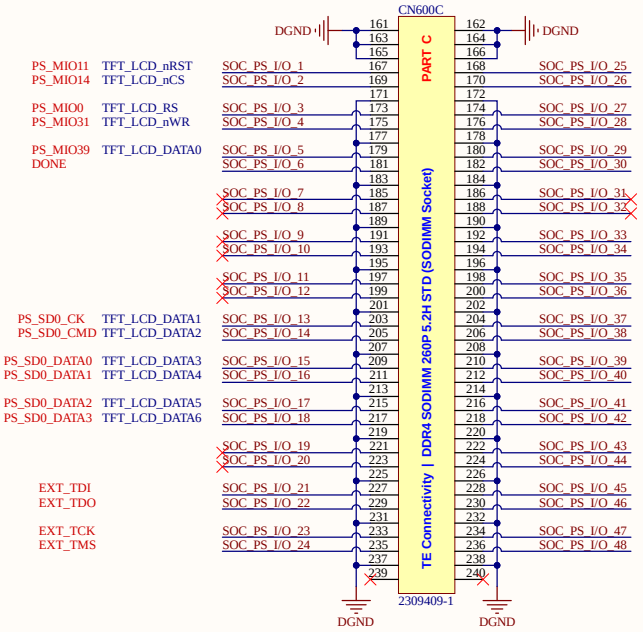
[6] FPGA / SOC SOM B'd Connector

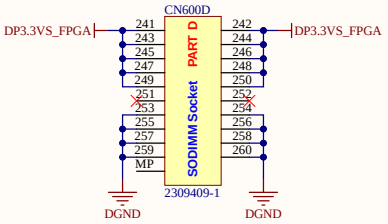
SOM B'd의 Edge Connector와 Socket의 핀 매칭 확인하였음.

FPGA/SOC



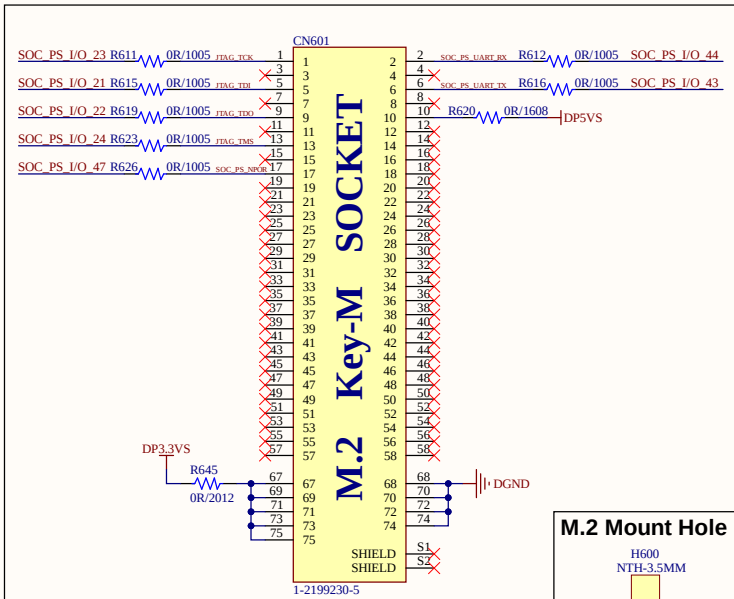






FTDI JTAG Programmer

M.2 B'd의 Edge Connector와 Socket의 핀 매칭 확인하였음.



M.2 Mount hole must be located 79.89 mm apart from the M.2 Socket

M.2 Mount Hole

H600
NTH-3.5MM

Jumper Resistor

BUZZER_EN	R600	0R/0603	FPGA_I/O_9
USER_LED1_BLUE	R601	0R/0603	FPGA_I/O_10
USER_LED1_GREEN	R602	0R/0603	FPGA_I/O_11
USER_LED1_RED	R603	0R/0603	FPGA_I/O_12
USER_LED2_BLUE	R604	0R/0603	FPGA_I/O_13
USER_LED2_GREEN	R605	0R/0603	FPGA_I/O_14
USER_LED2_RED	R606	0R/0603	FPGA_I/O_15
USER_TACT_SW1	R607	0R/0603	FPGA_I/O_16
USER_TACT_SW2	R608	0R/0603	FPGA_I/O_17
USER_TACT_SW3	R609	0R/0603	FPGA_I/O_18
USER_TACT_SW4	R610	0R/0603	FPGA_I/O_19
USER_DIP_SW1	R613	0R/0603	FPGA_I/O_20
USER_DIP_SW2	R614	0R/0603	FPGA_I/O_21
USER_DIP_SW3	R617	0R/0603	FPGA_I/O_22
USER_DIP_SW4	R618	0R/0603	FPGA_I/O_23
TFT_LCD_nRST	R621	0R/0603	SOC_PS_I/O_1
TFT_LCD_nCS	R622	0R/0603	SOC_PS_I/O_2
TFT_LCD_RS	R624	0R/0603	SOC_PS_I/O_3
TFT_LCD_nWR	R625	0R/0603	SOC_PS_I/O_4
TFT_LCD_DATA0	R627	0R/0603	SOC_PS_I/O_5
TFT_LCD_DATA1	R628	0R/0603	SOC_PS_I/O_13
TFT_LCD_DATA2	R629	0R/0603	SOC_PS_I/O_14
TFT_LCD_DATA3	R630	0R/0603	SOC_PS_I/O_15
TFT_LCD_DATA4	R631	0R/0603	SOC_PS_I/O_16
TFT_LCD_DATA5	R632	0R/0603	SOC_PS_I/O_17
TFT_LCD_DATA6	R633	0R/0603	SOC_PS_I/O_18
TFT_LCD_DATA7	R634	0R/0603	SOC_PS_I/O_25
TFT_LCD_DATA8	R635	0R/0603	SOC_PS_I/O_26
TFT_LCD_DATA9	R636	0R/0603	SOC_PS_I/O_29
TFT_LCD_DATA10	R637	0R/0603	SOC_PS_I/O_30
TFT_LCD_DATA11	R638	0R/0603	SOC_PS_I/O_36
TFT_LCD_DATA12	R639	0R/0603	SOC_PS_I/O_39
TFT_LCD_DATA13	R640	0R/0603	SOC_PS_I/O_40
TFT_LCD_DATA14	R641	0R/0603	SOC_PS_I/O_41
TFT_LCD_DATA15	R642	0R/0603	SOC_PS_I/O_42
PG_1.35V	R643	0R/0603	SOC_PS_I/O_45
PG_3.3V	R644	0R/0603	SOC_PS_I/O_46

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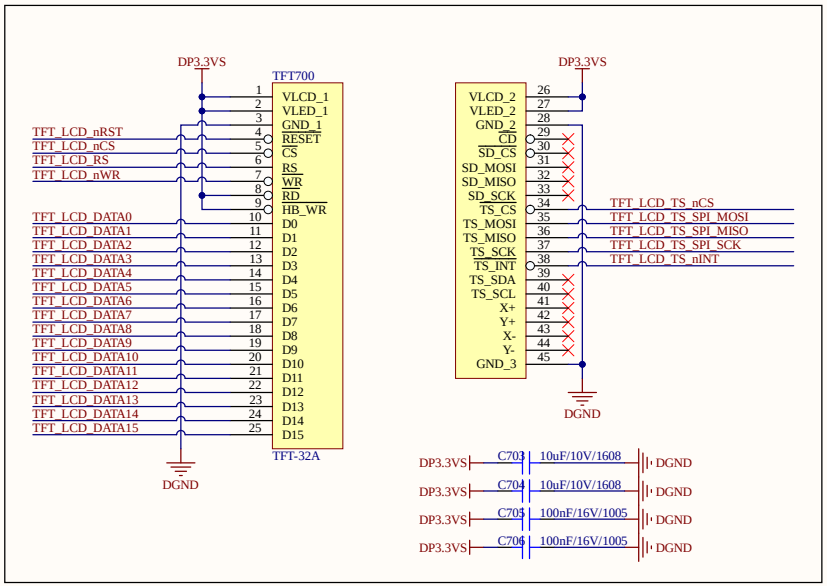
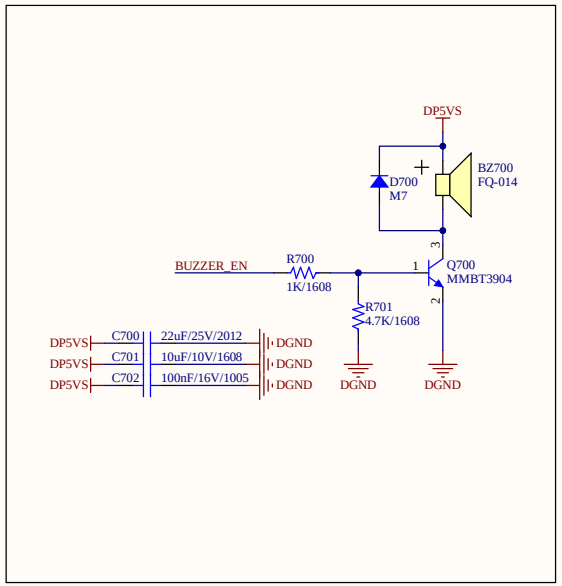
[7] Peripheral Part

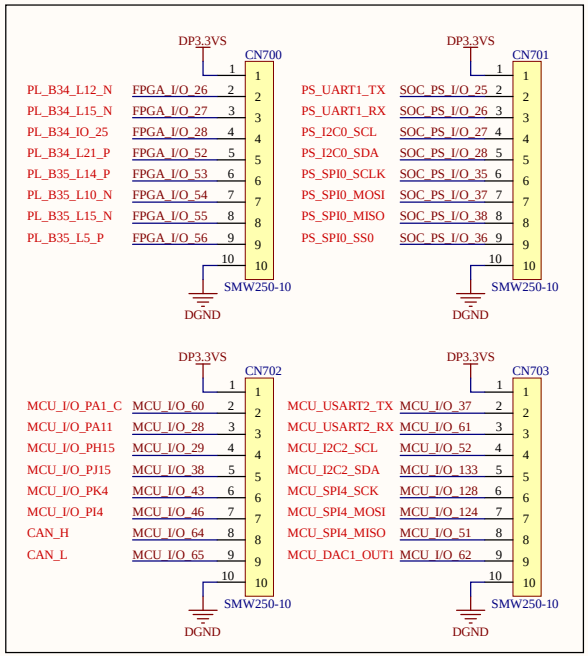
TFT LCD (with Touch Screen)



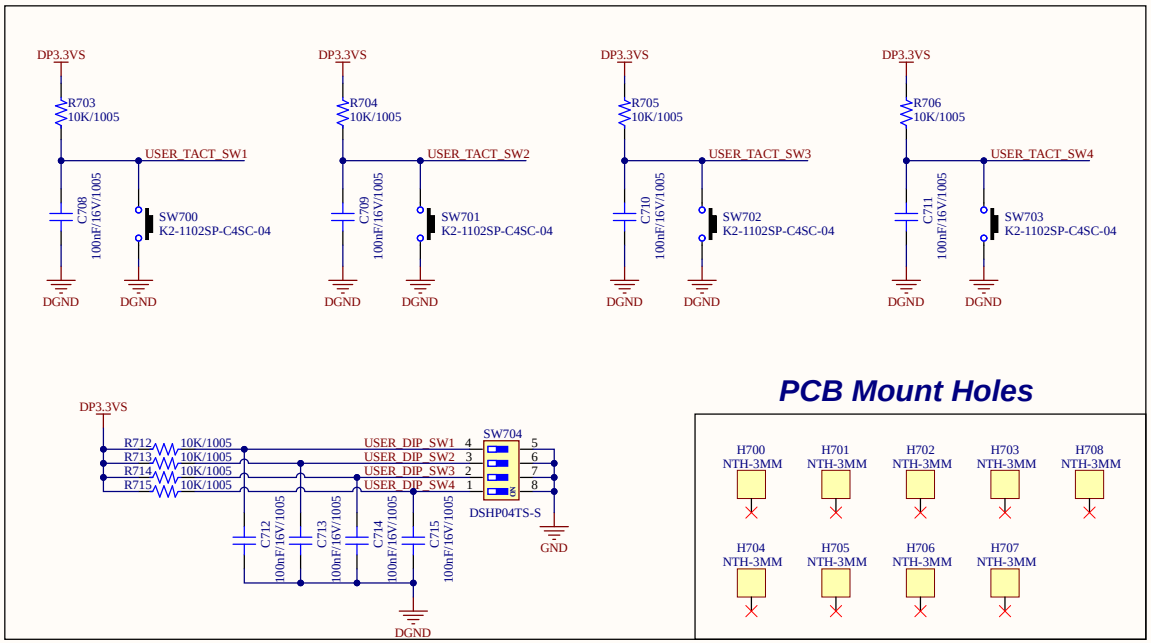
Buzzer (For MCU / FPGA / SOC_PL)



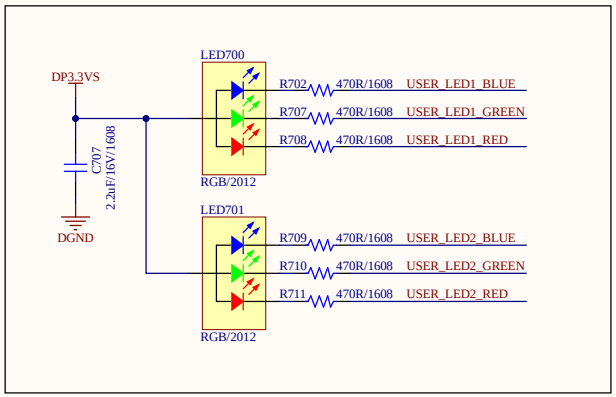
External I/O Connector



User Switch (For MCU / FPGA / SOC_PL)



User LED (For MCU / FPGA / SOC_PL)



PCB Mount Holes

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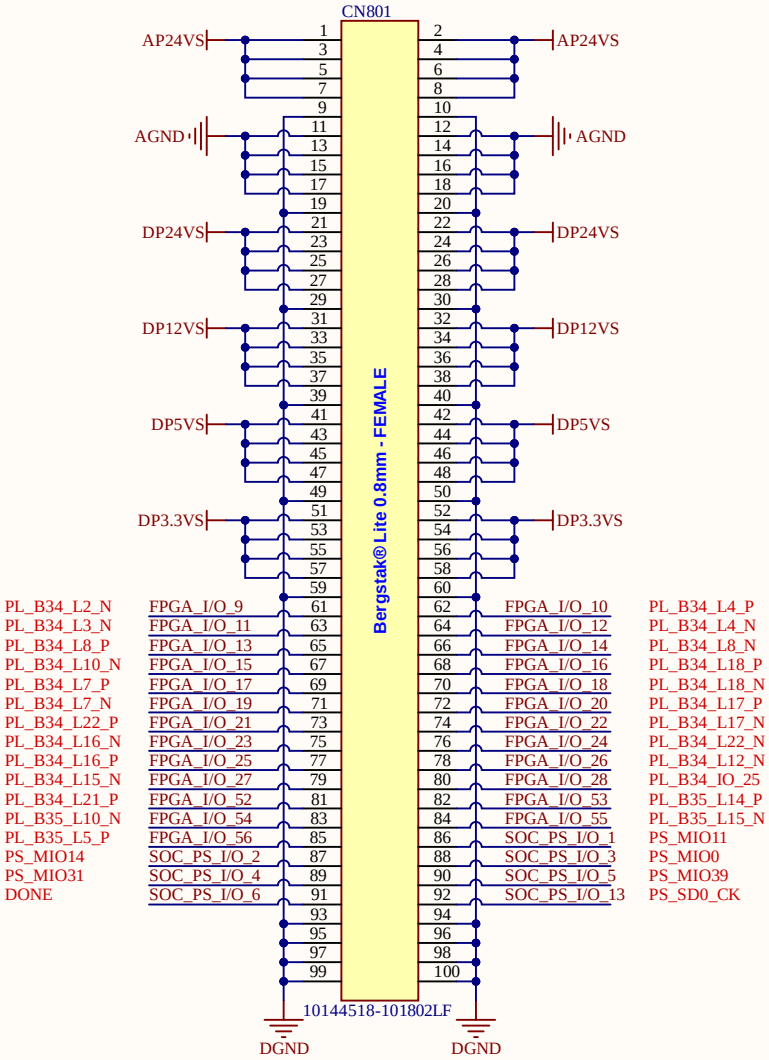
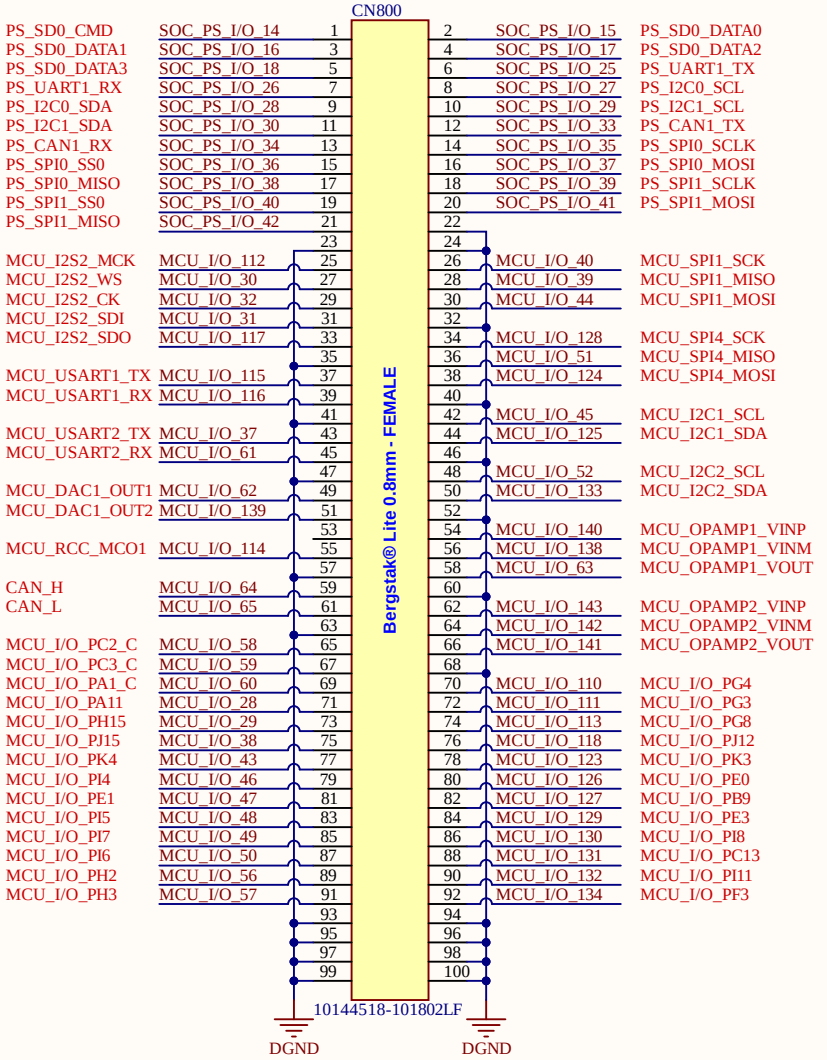
[8] Target B'd Connector





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