
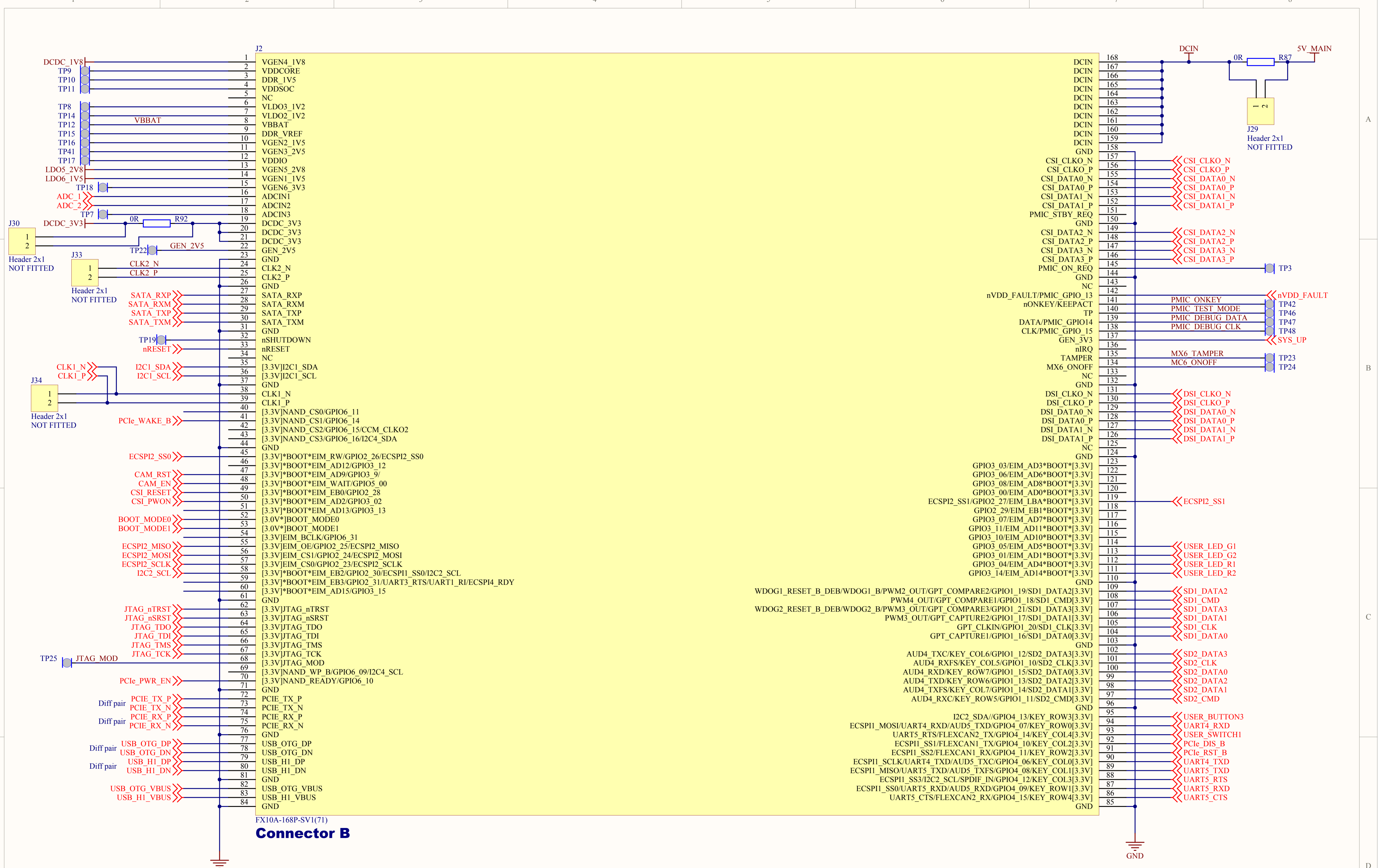


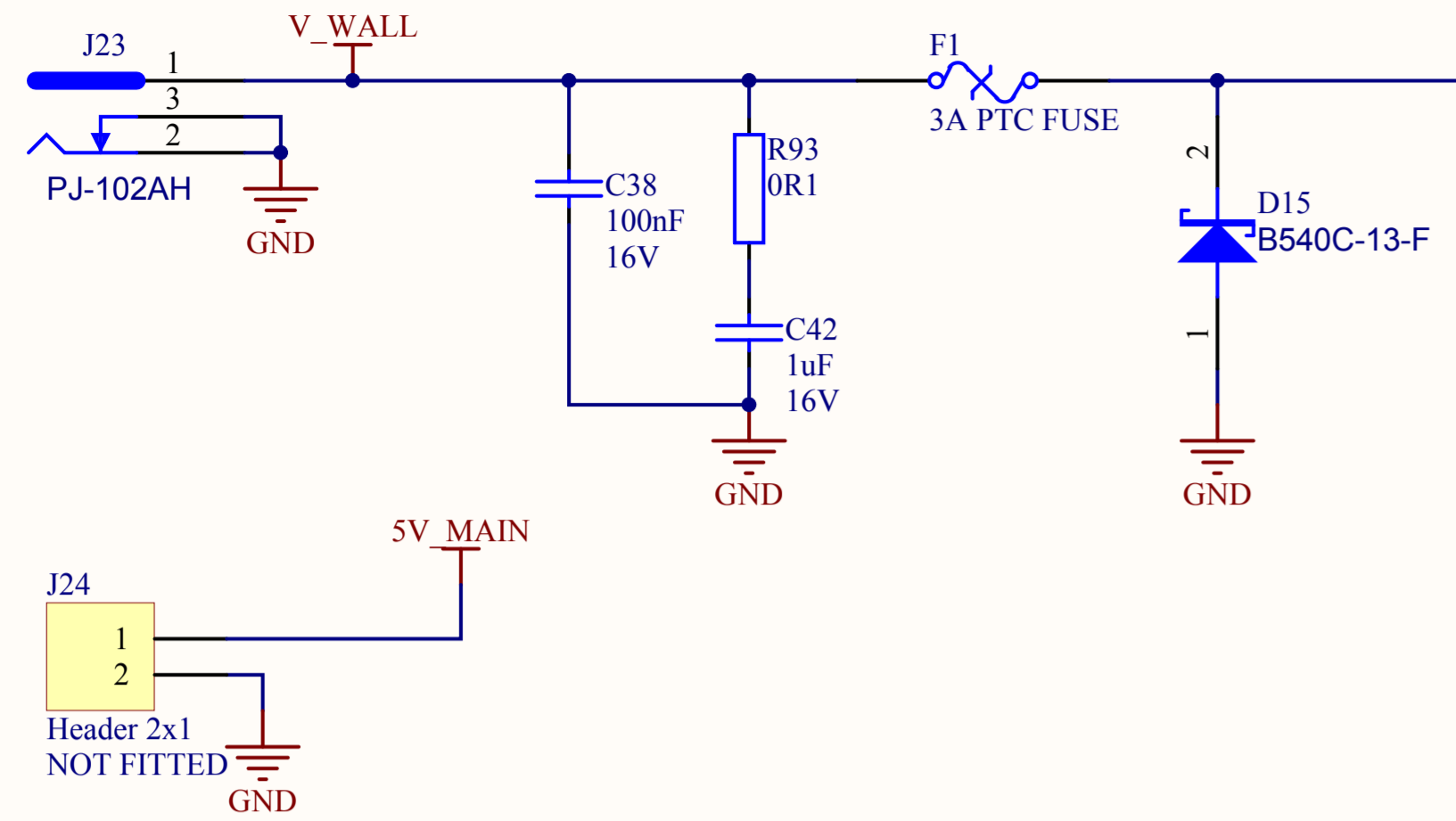
Title: Module A		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 1 of 11		Size: A4	www.device.solutions support@device.solutions
CONFIDENTIAL Do not reproduce without permission from Device Solutions Ltd			File: Opal1.MX6 Module1.SchDoc



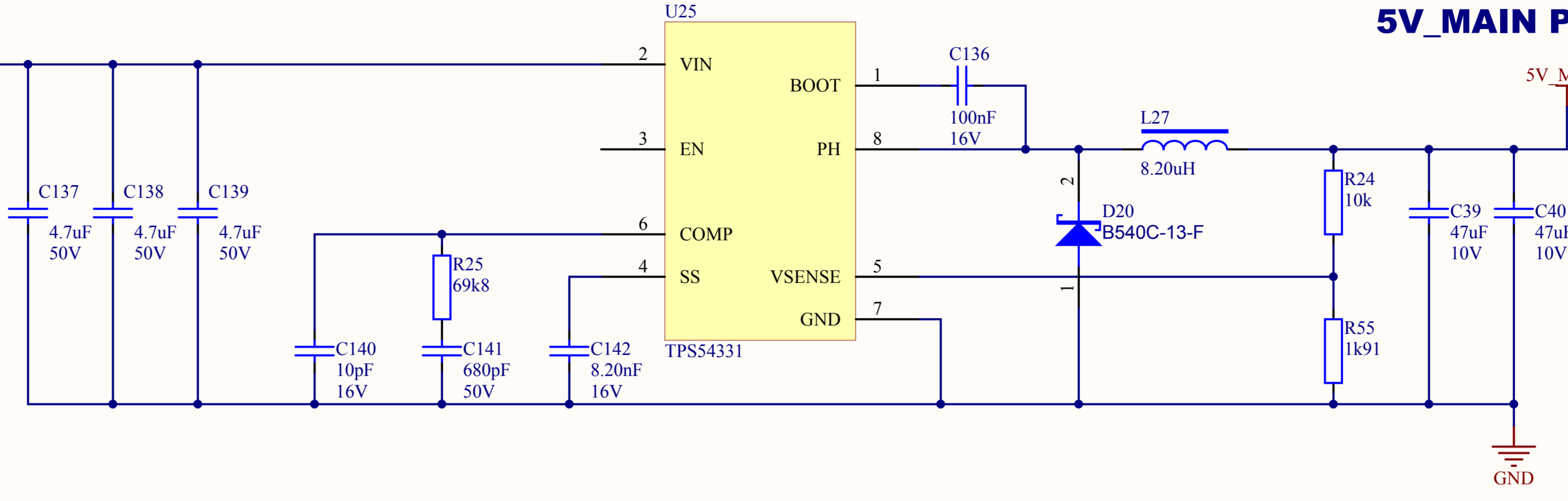
Title: Module B		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 2 of 11		Size: A4	www.device.solutions support@device.solutions
CONFIDENTIAL			File: Opal1.MX6 Module2.SchDoc

Do not reproduce without permission from Device Solutions Ltd

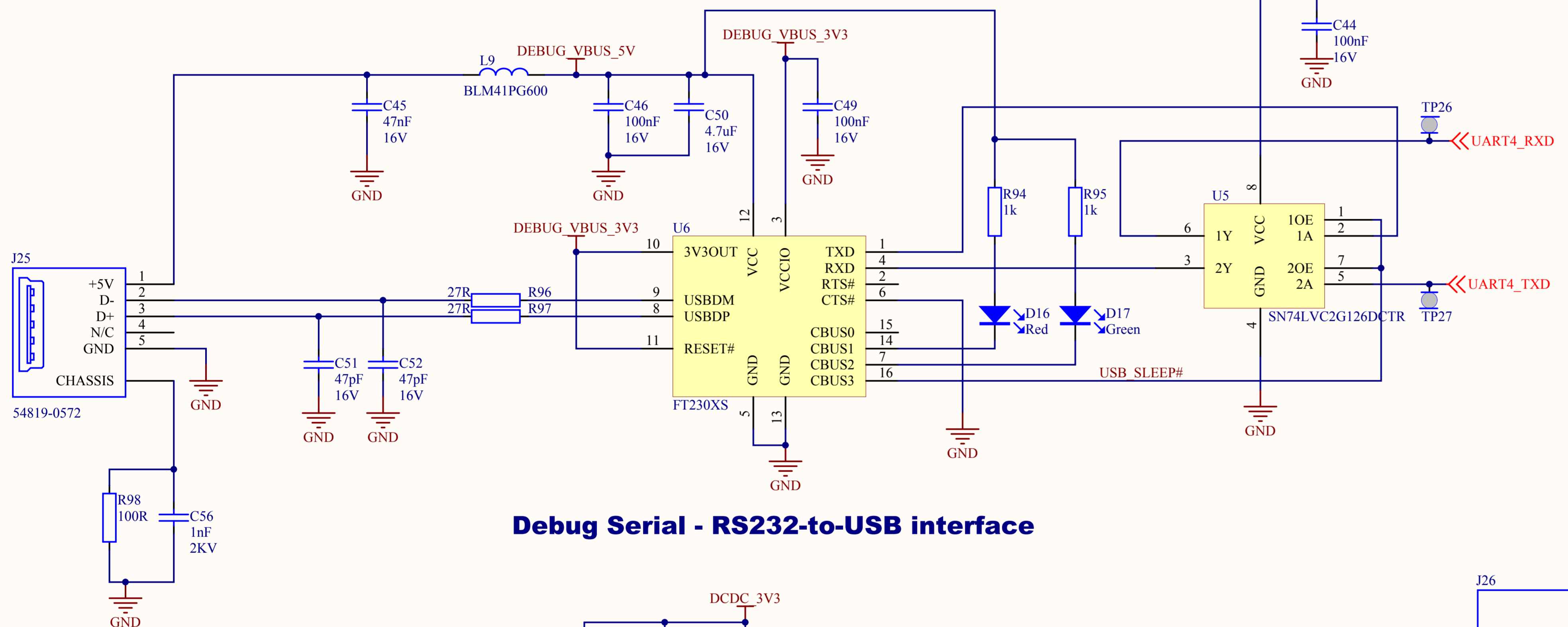
6-28V @ 3A DC IN



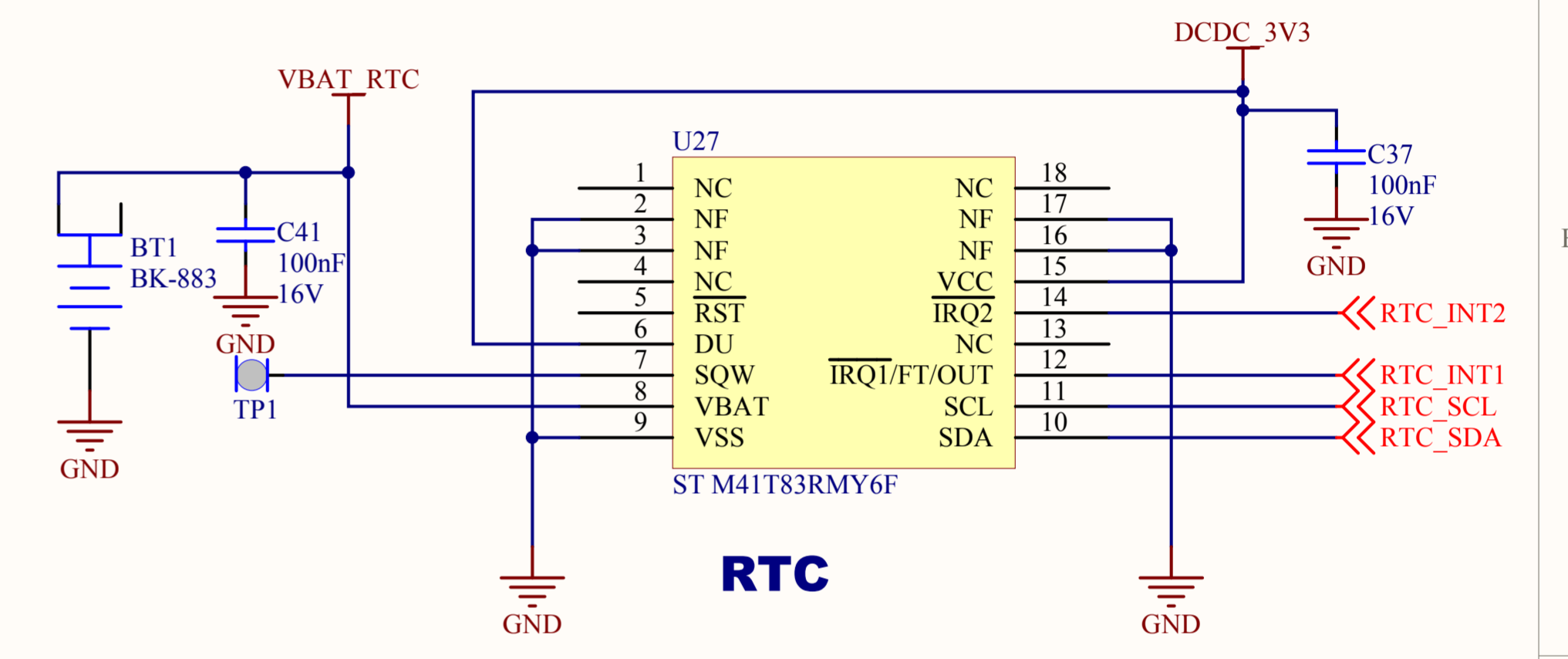
5V_MAIN POWER - 3A



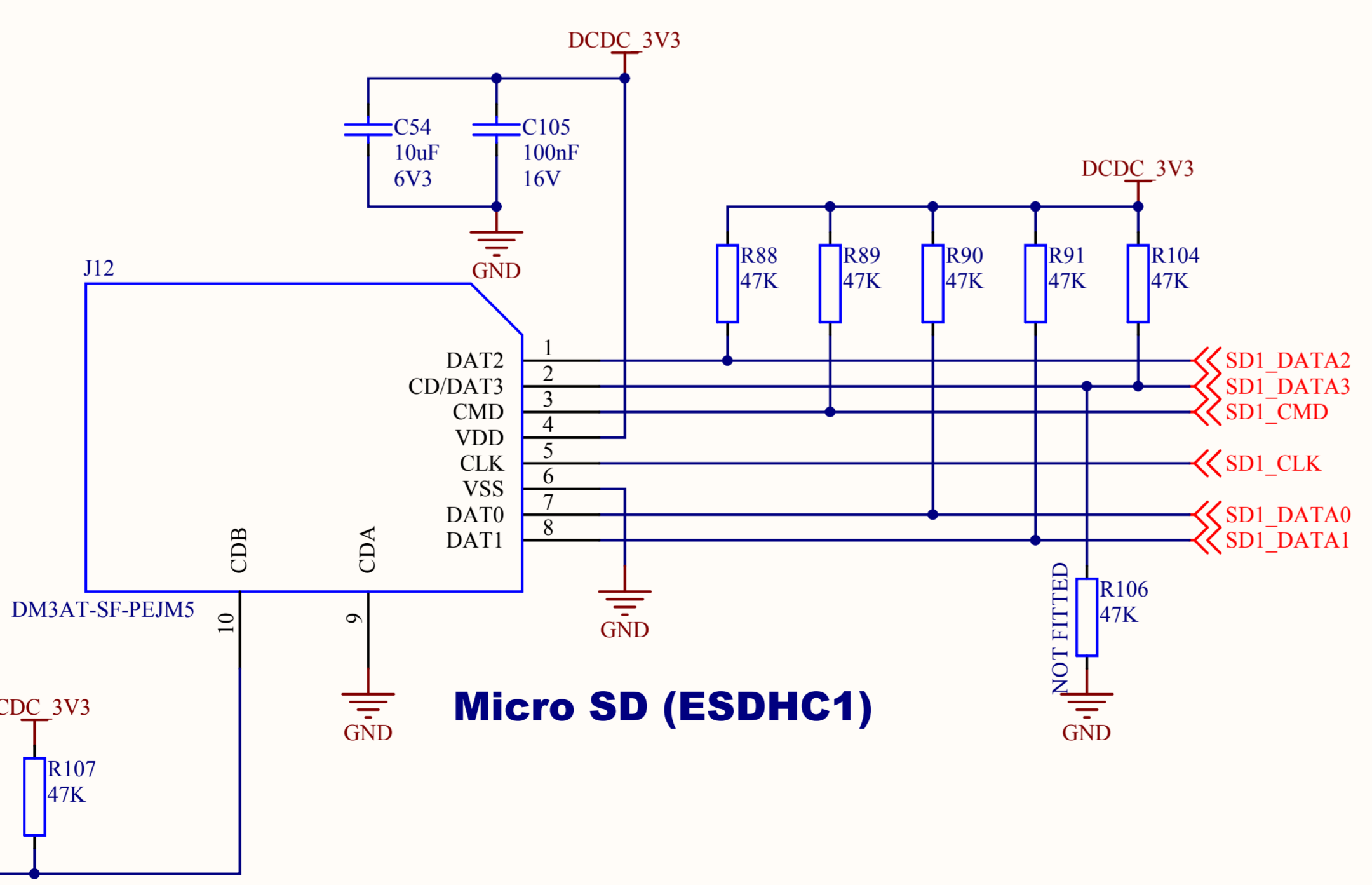
5V DC IN if MORE than 3A is required
**** There is NO PROTECTION on this input ****



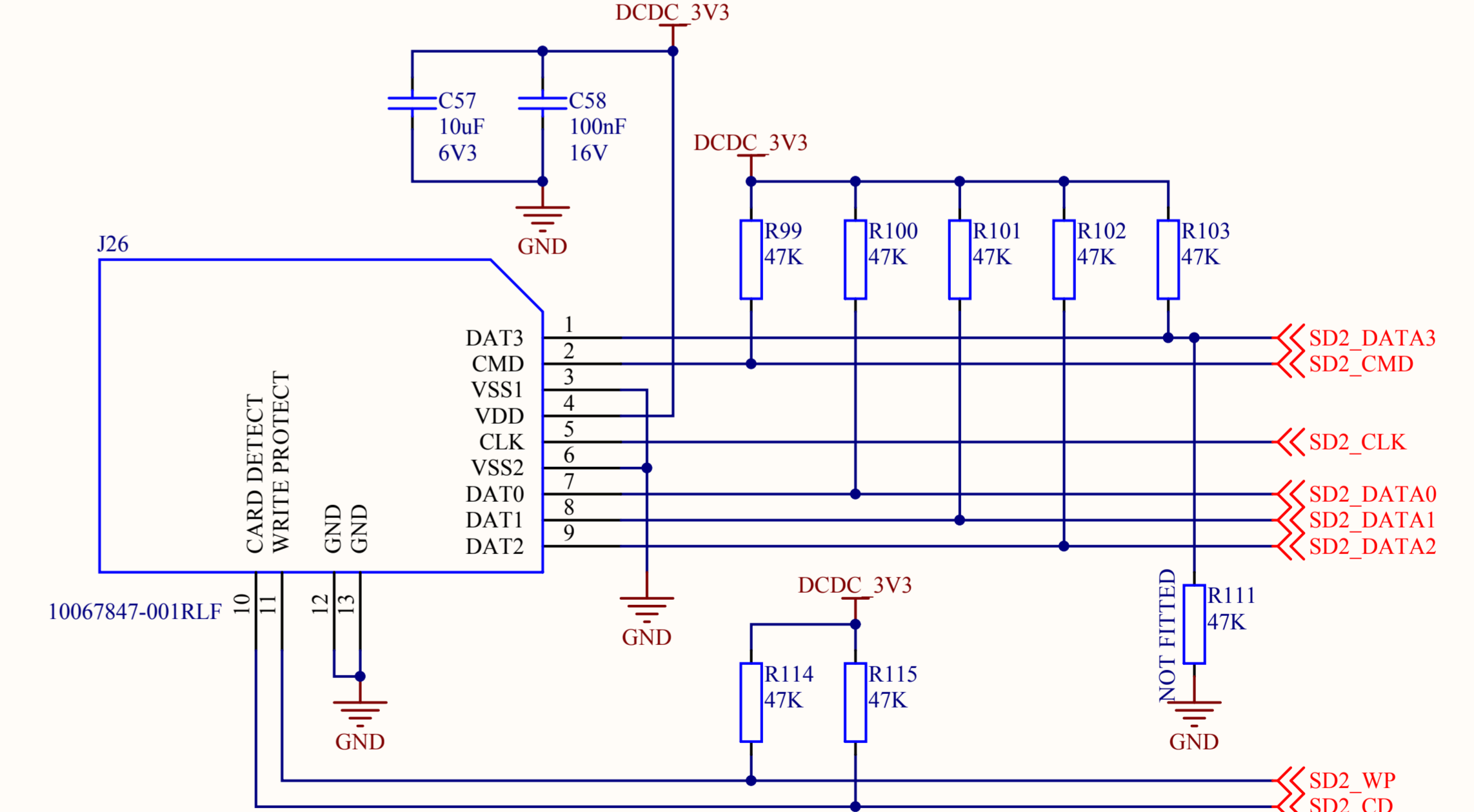
Debug Serial - RS232-to-USB interface



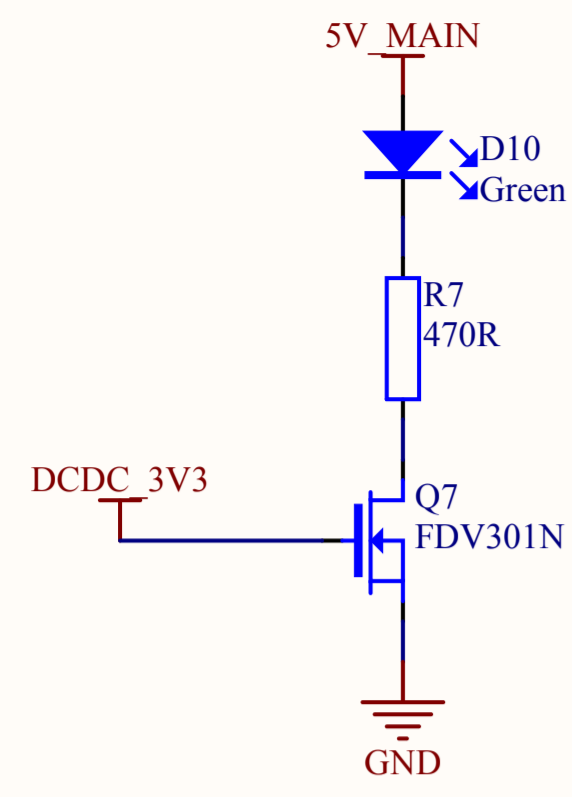
RTC



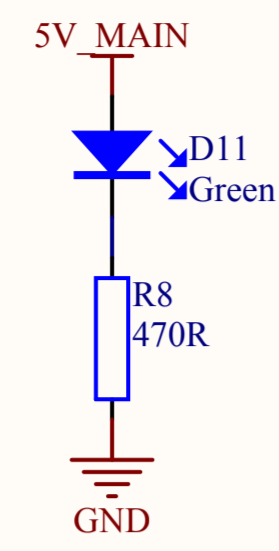
Micro SD (ESDHC1)



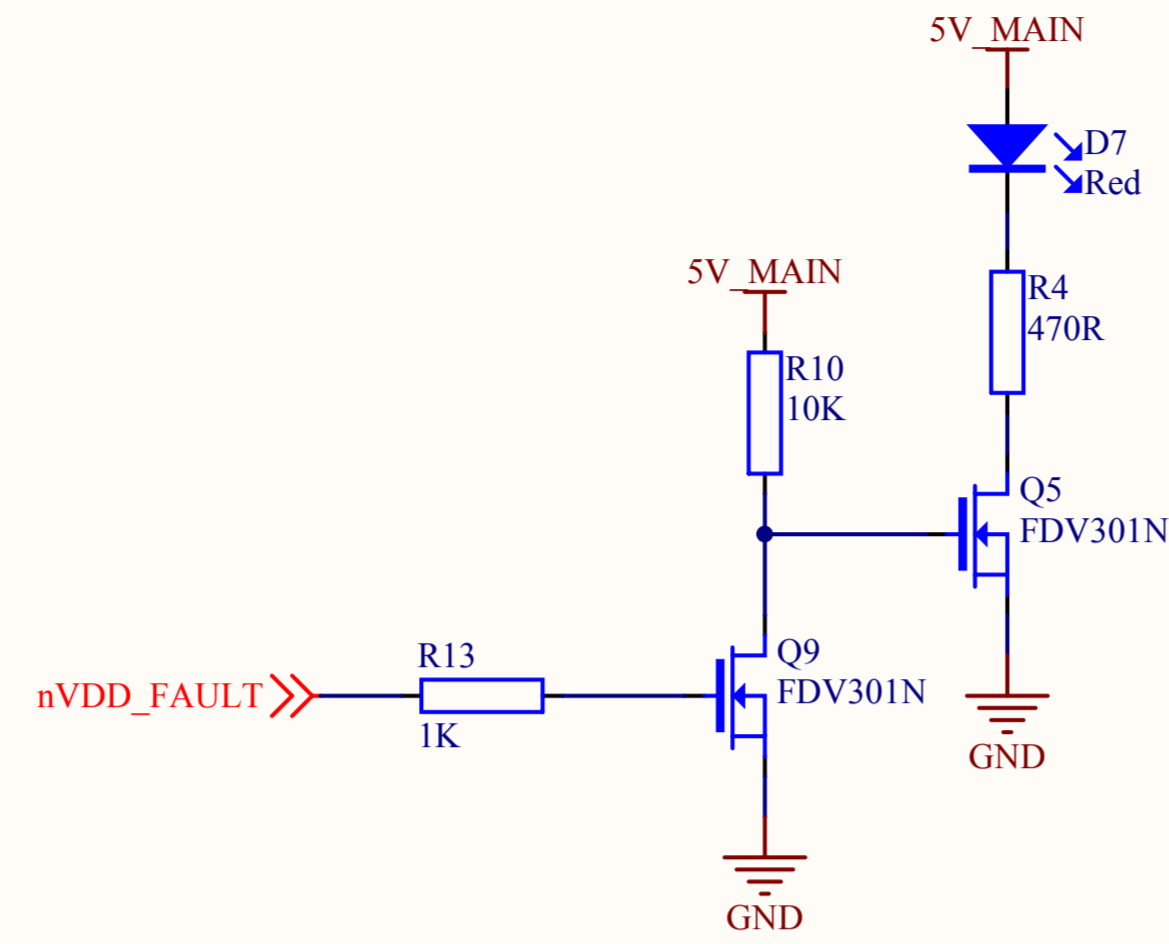
SD CONNECTOR



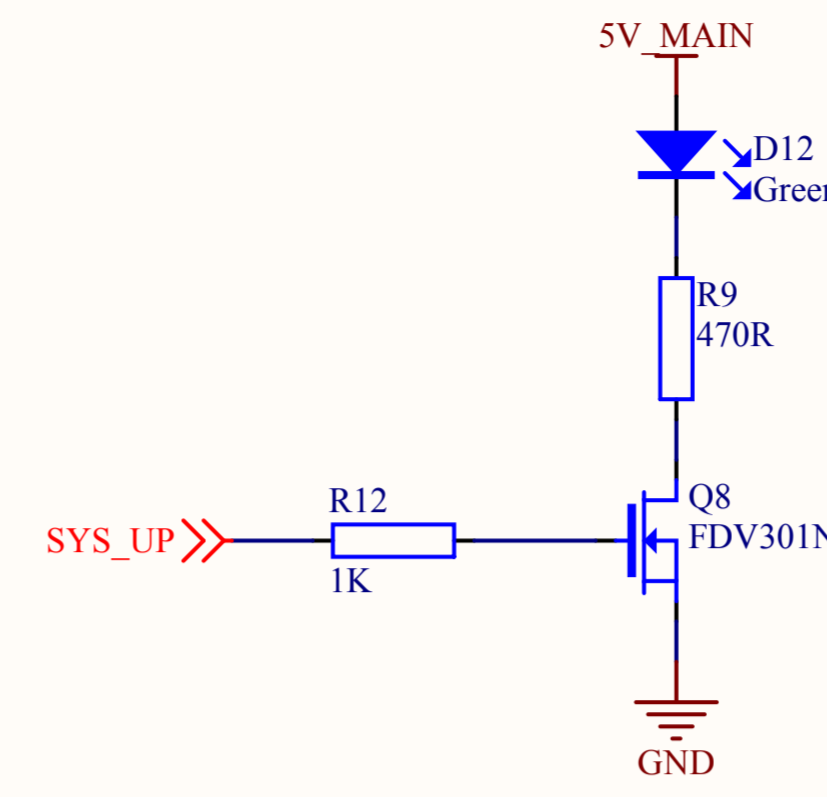
DCDC_3V3



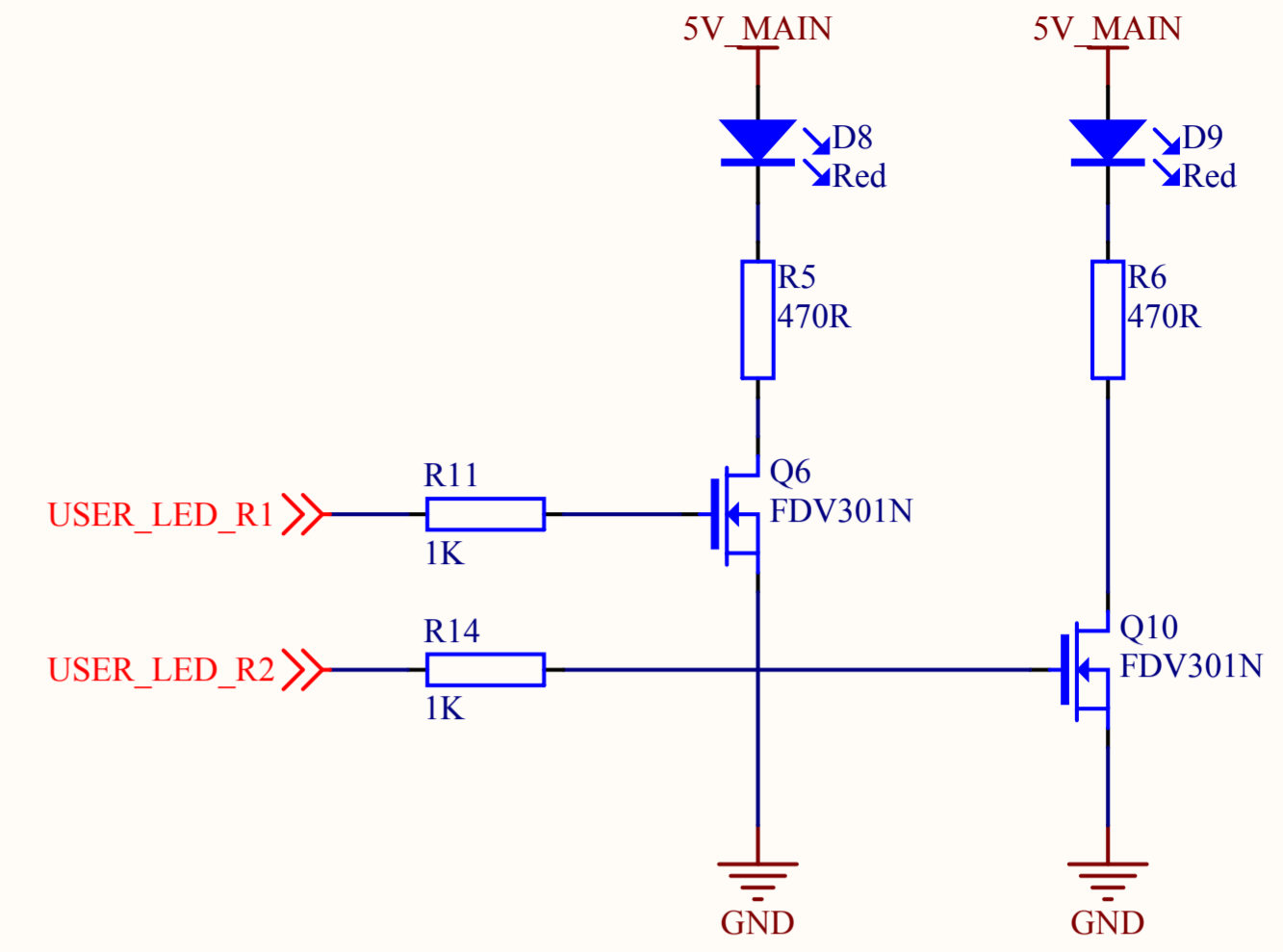
5V_MAIN



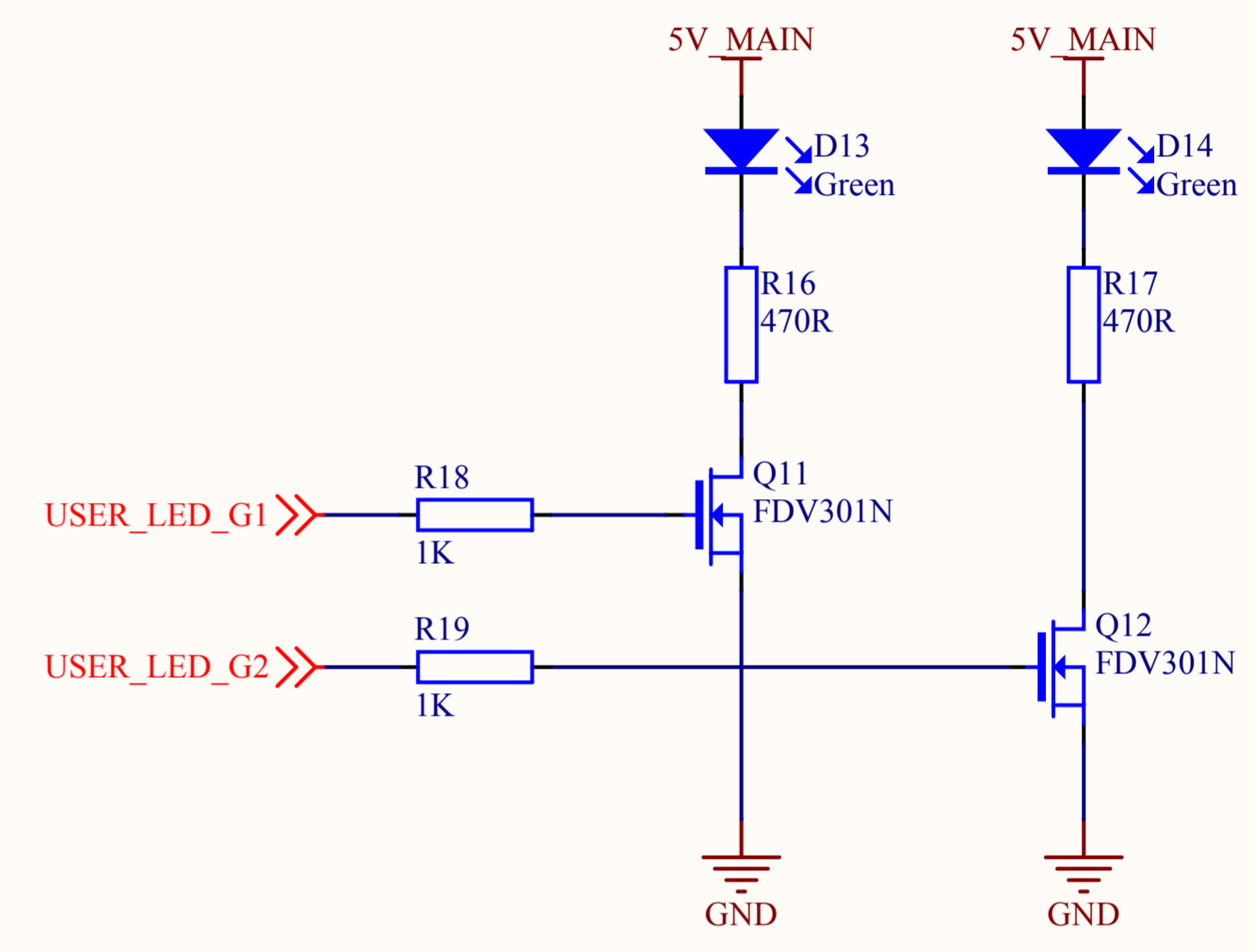
FAULT/STANDBY



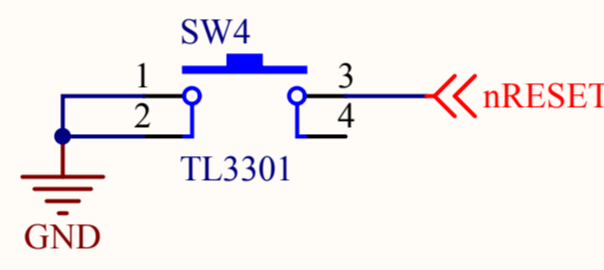
PMIC_PWR



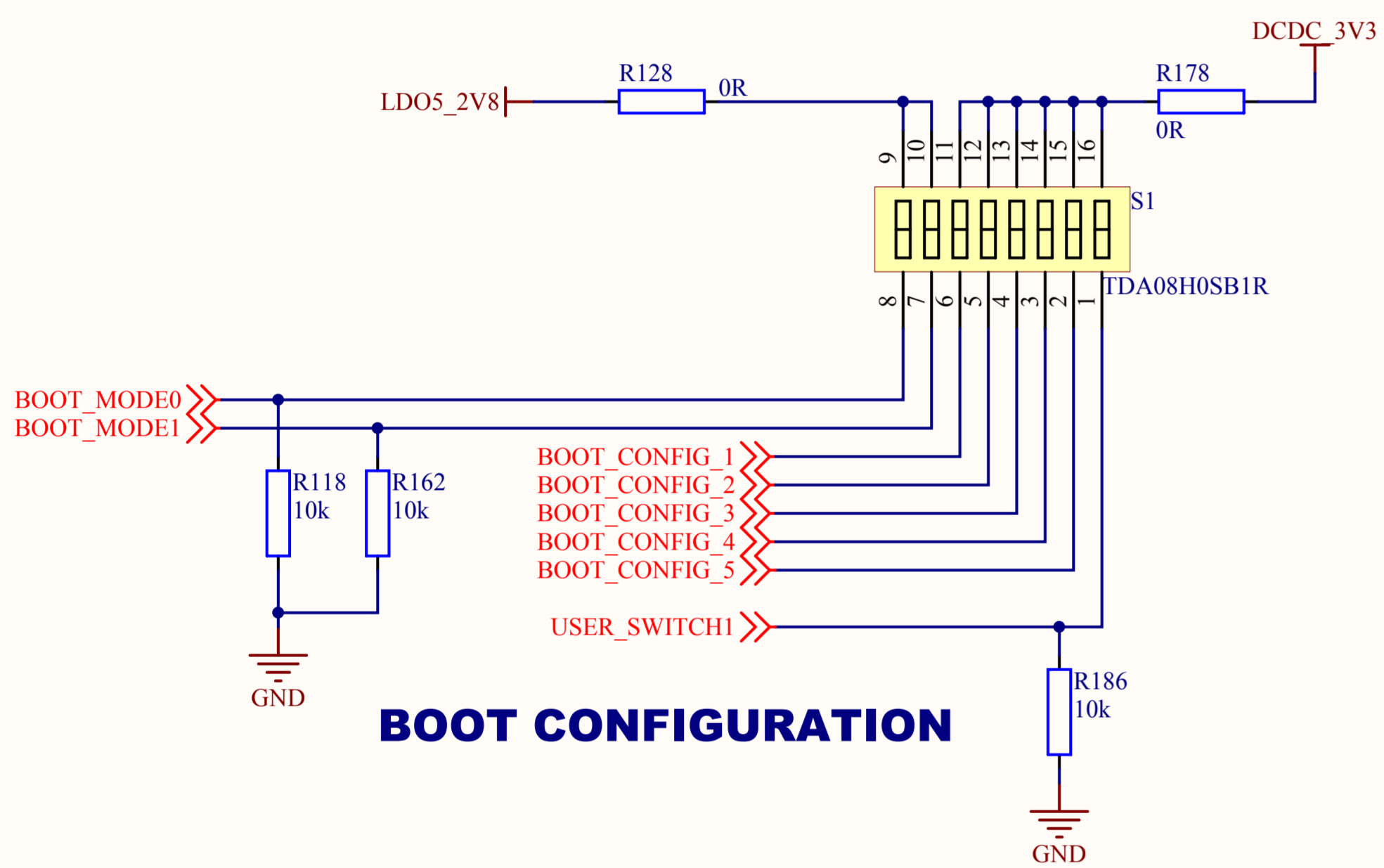
USER LEDs x 4



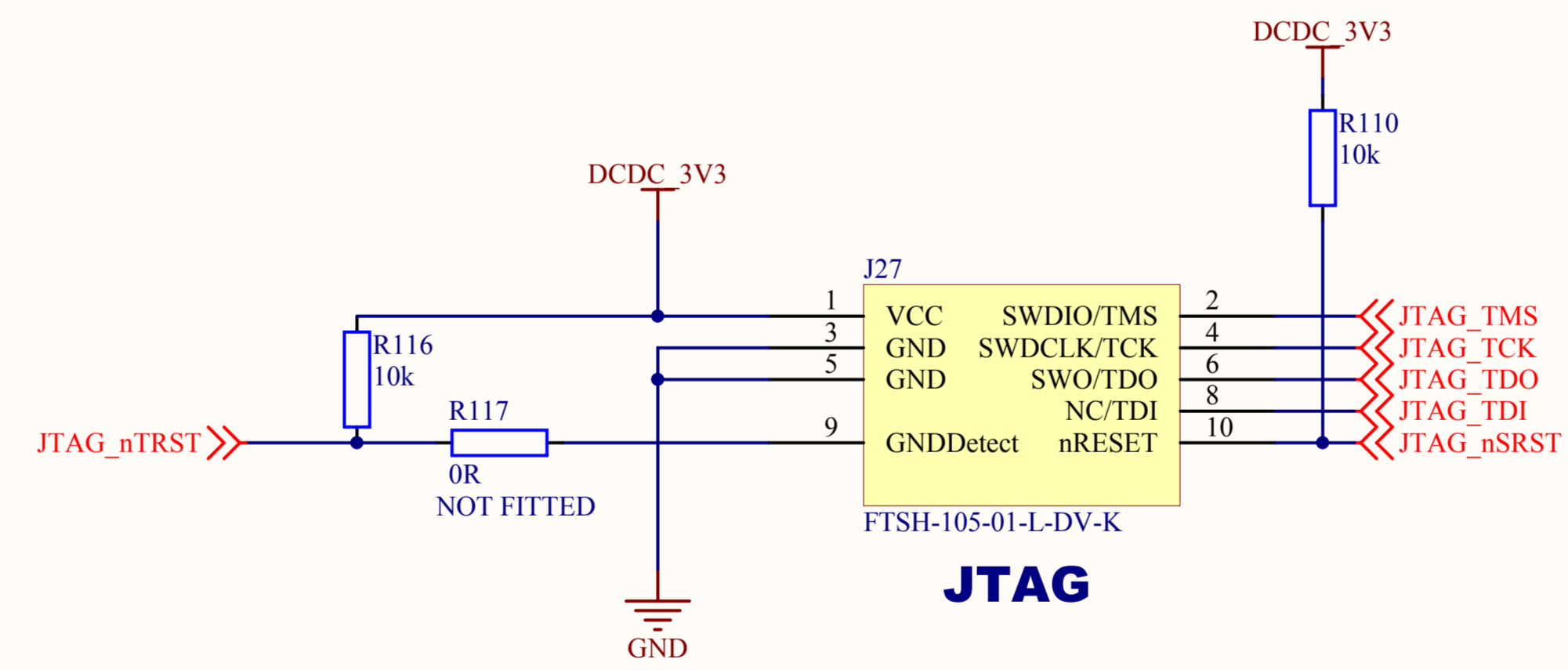
USER BUTTONS x 3



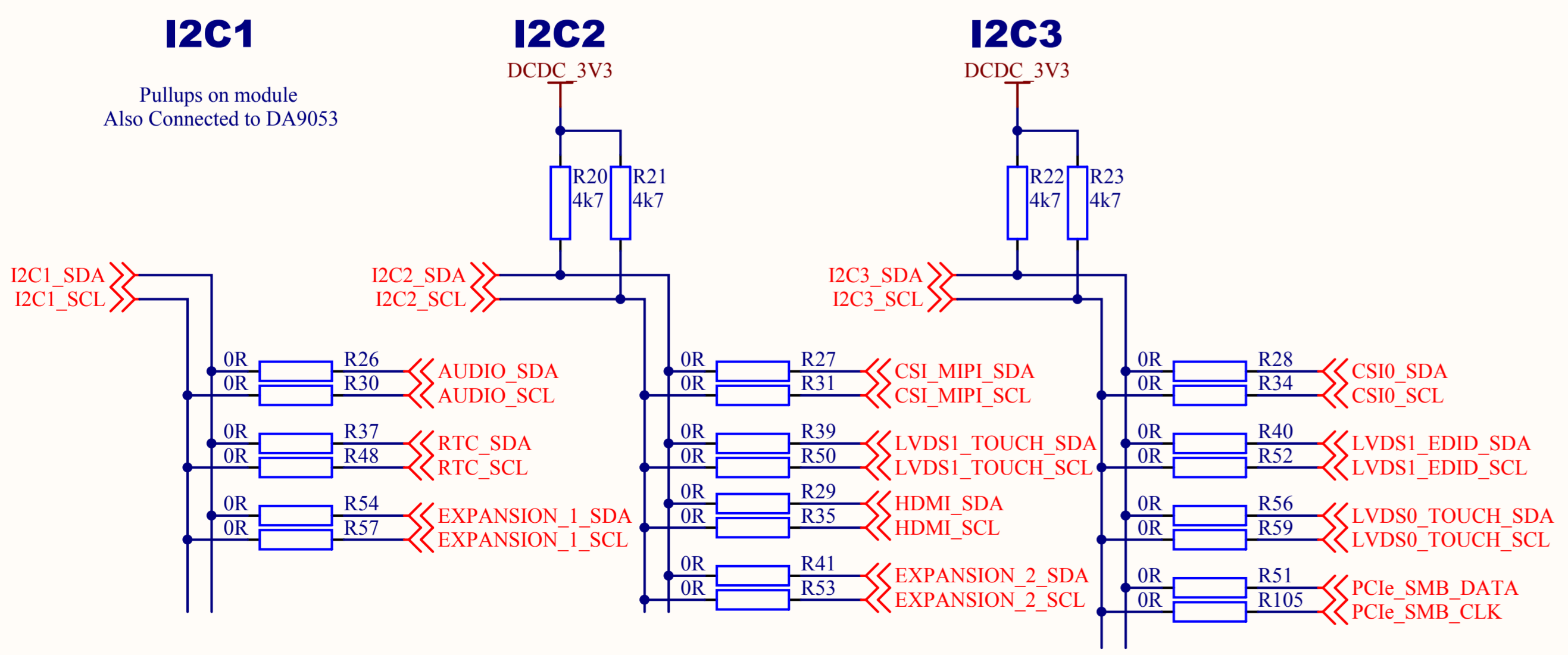
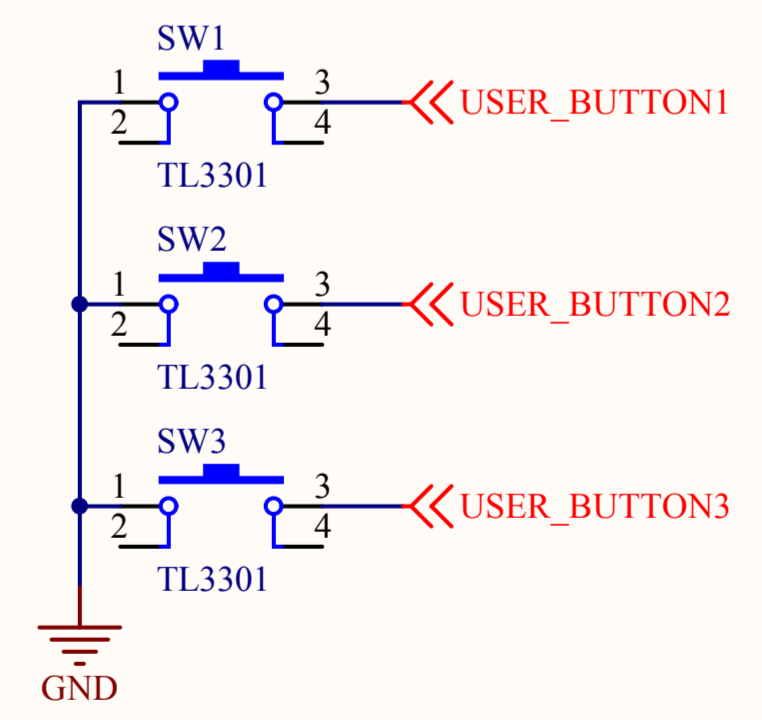
RESET



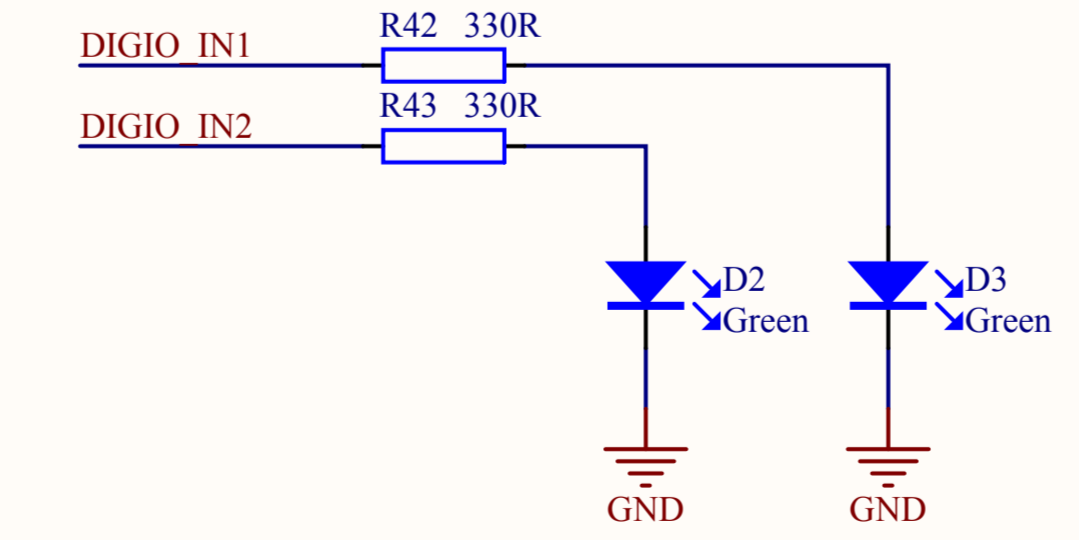
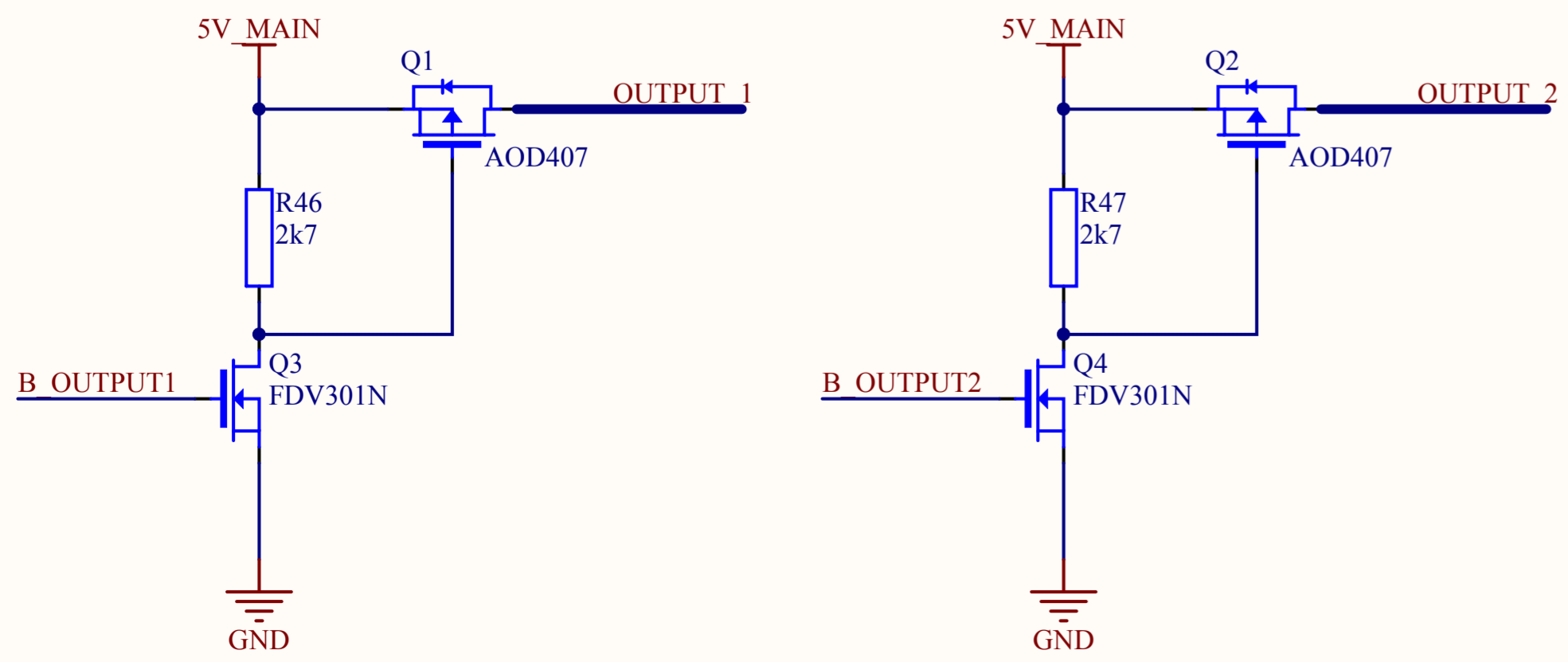
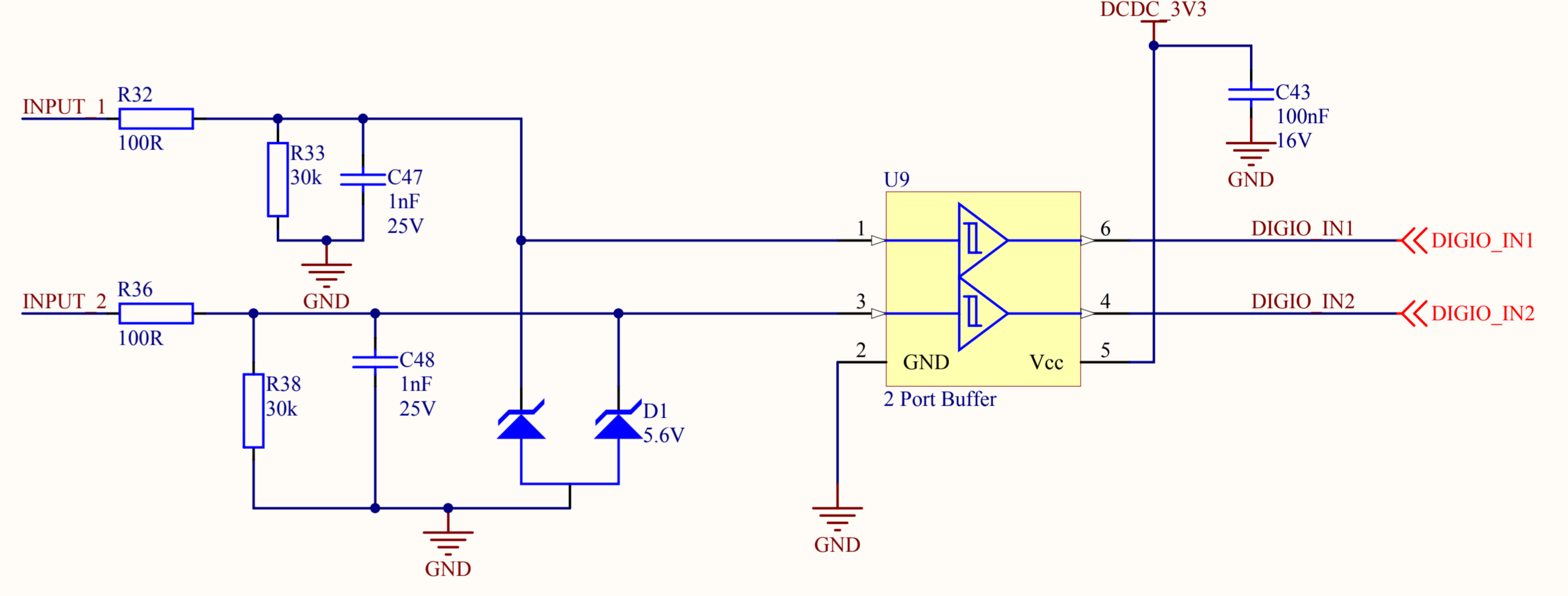
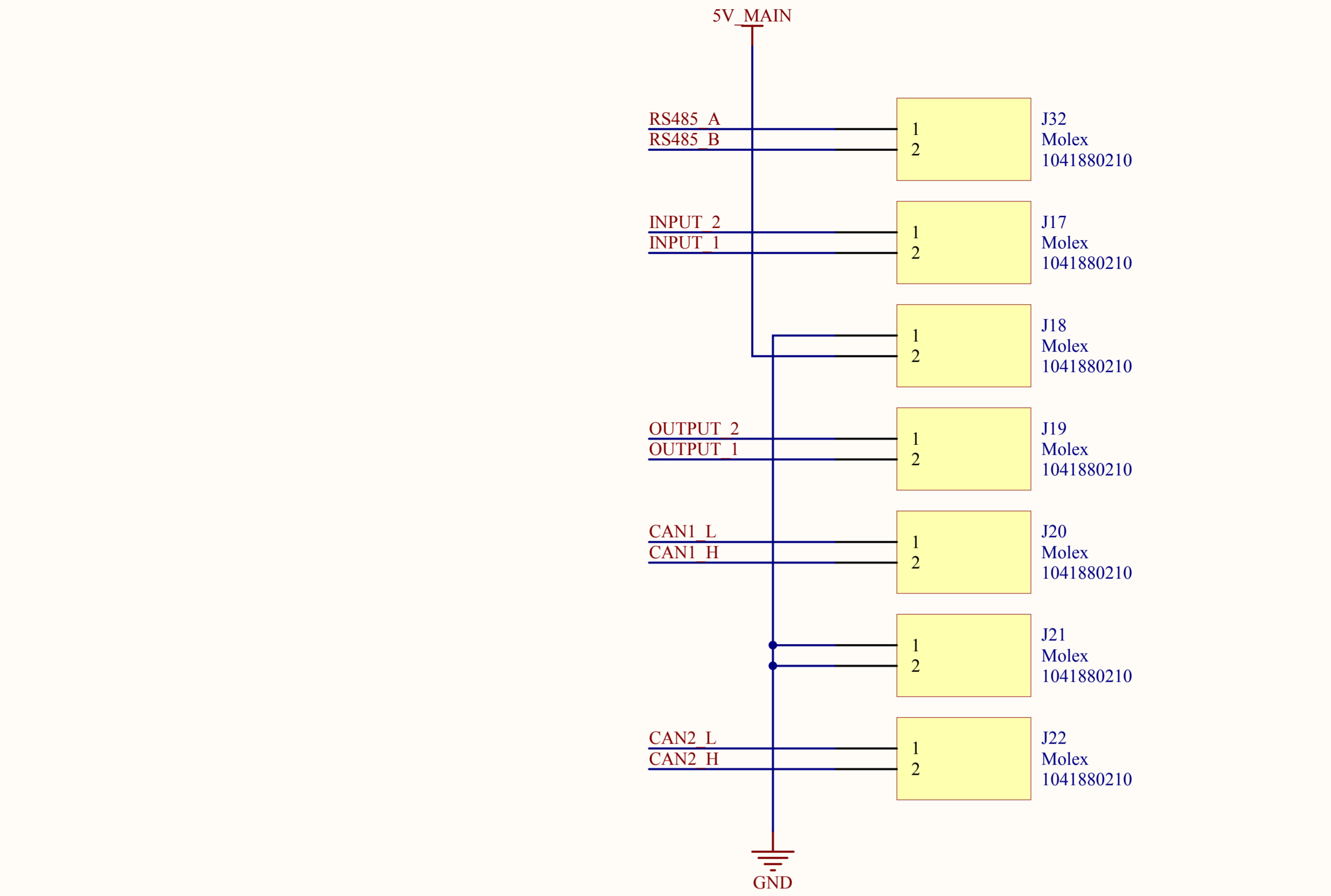
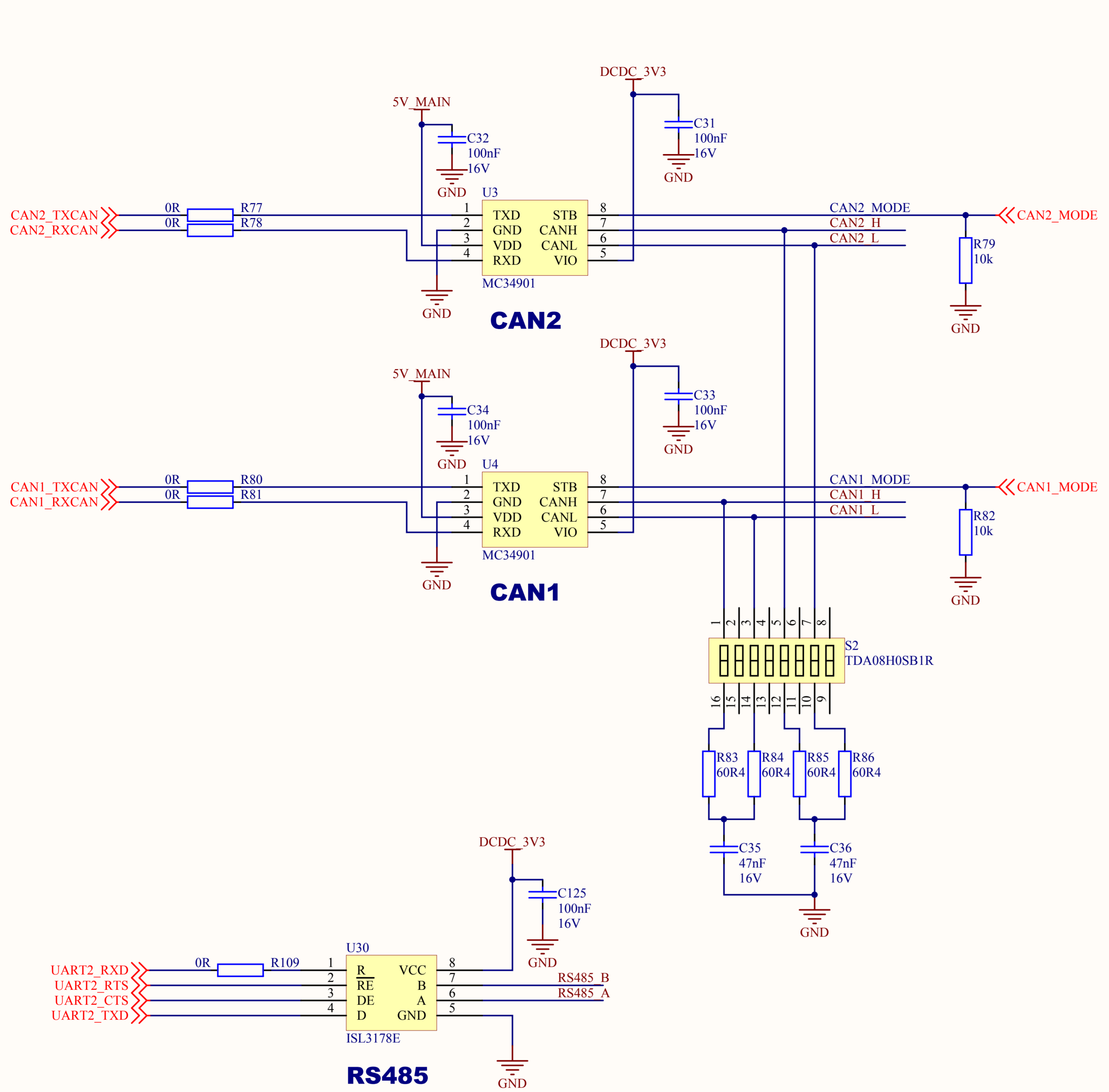
BOOT CONFIGURATION




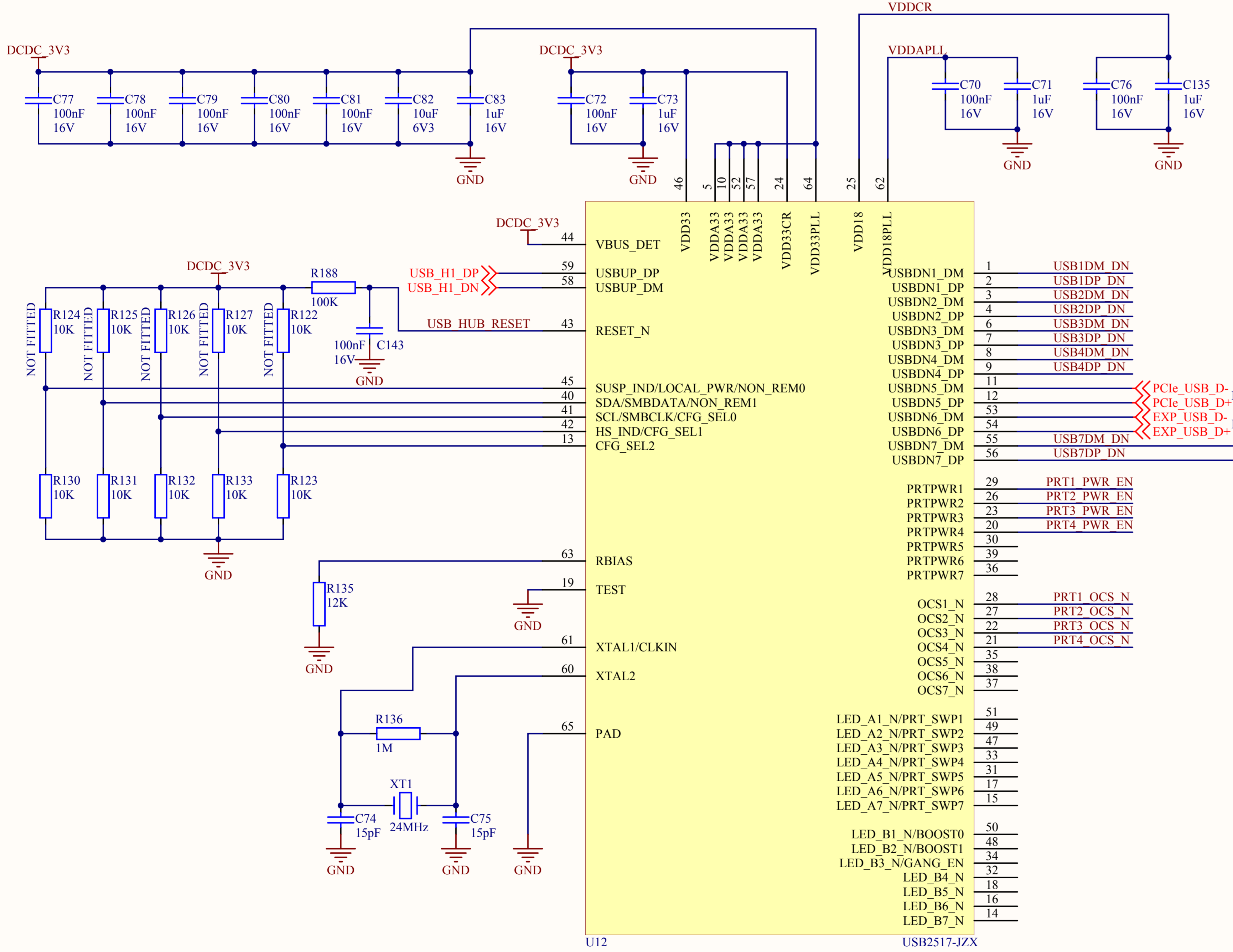
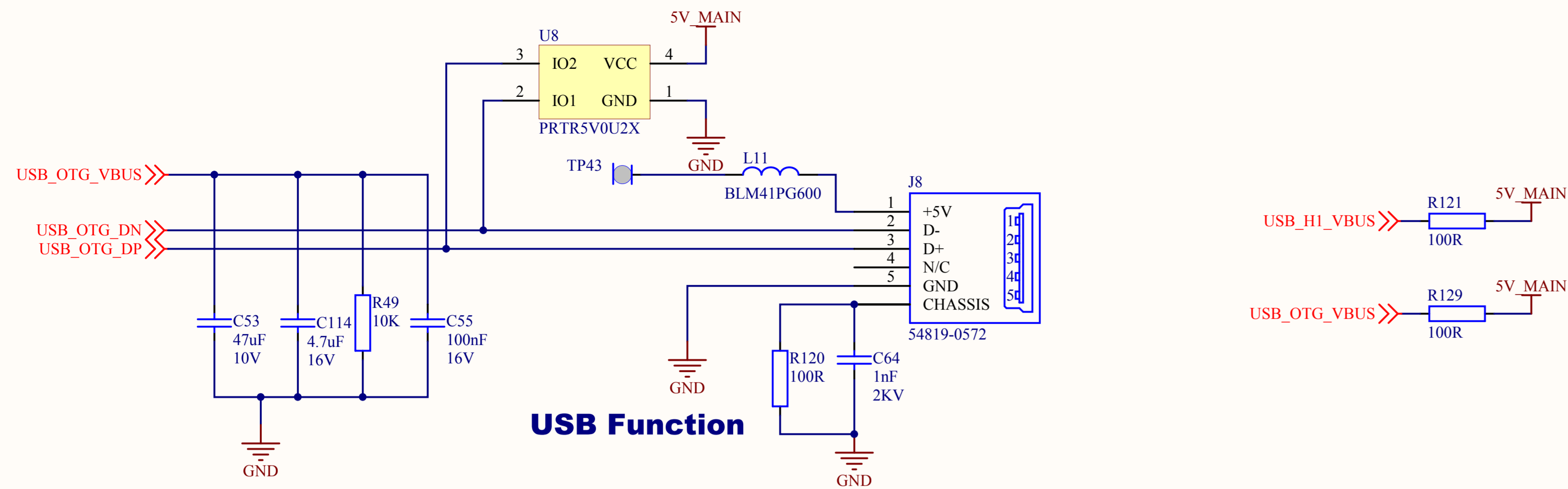
JTAG



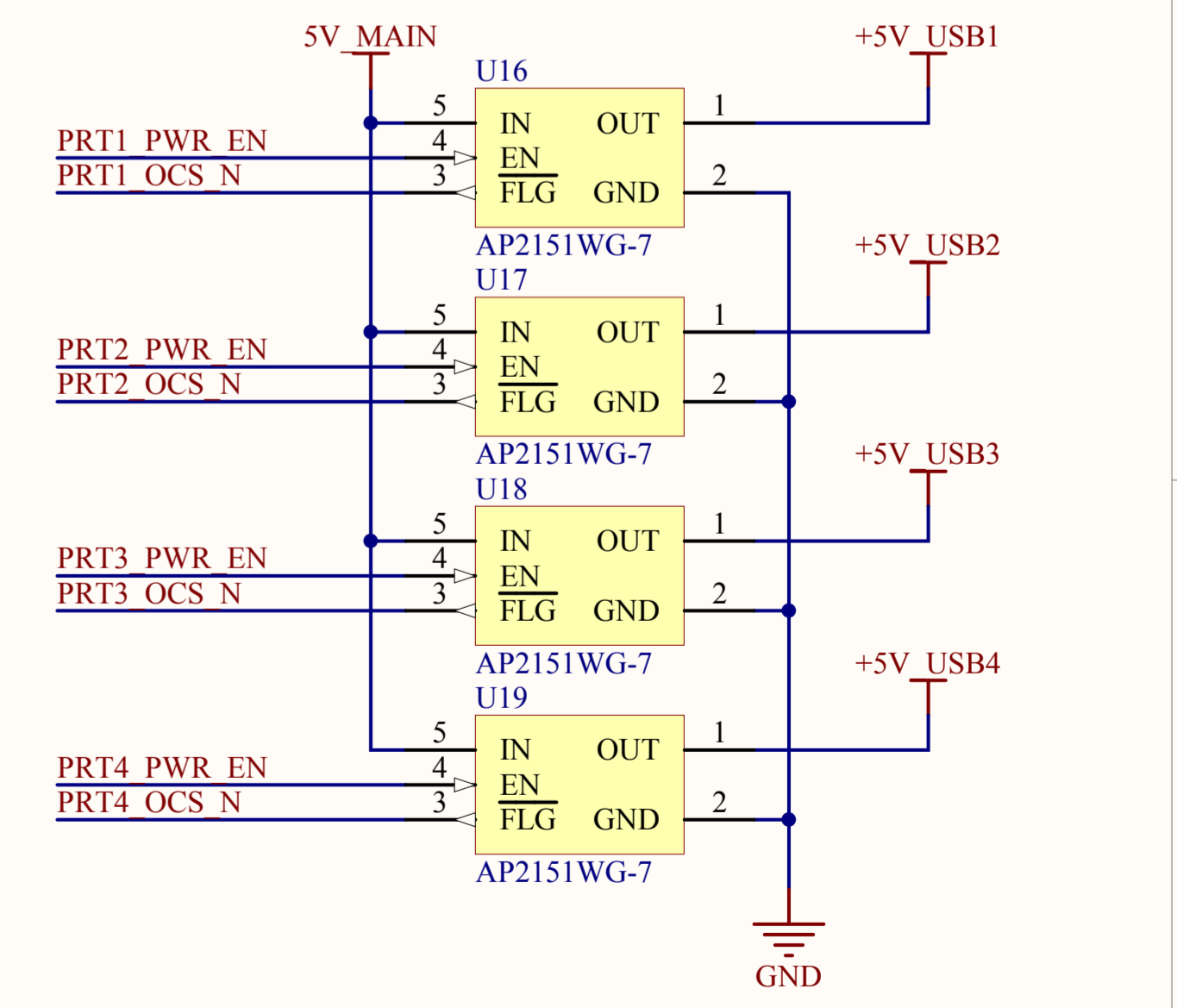
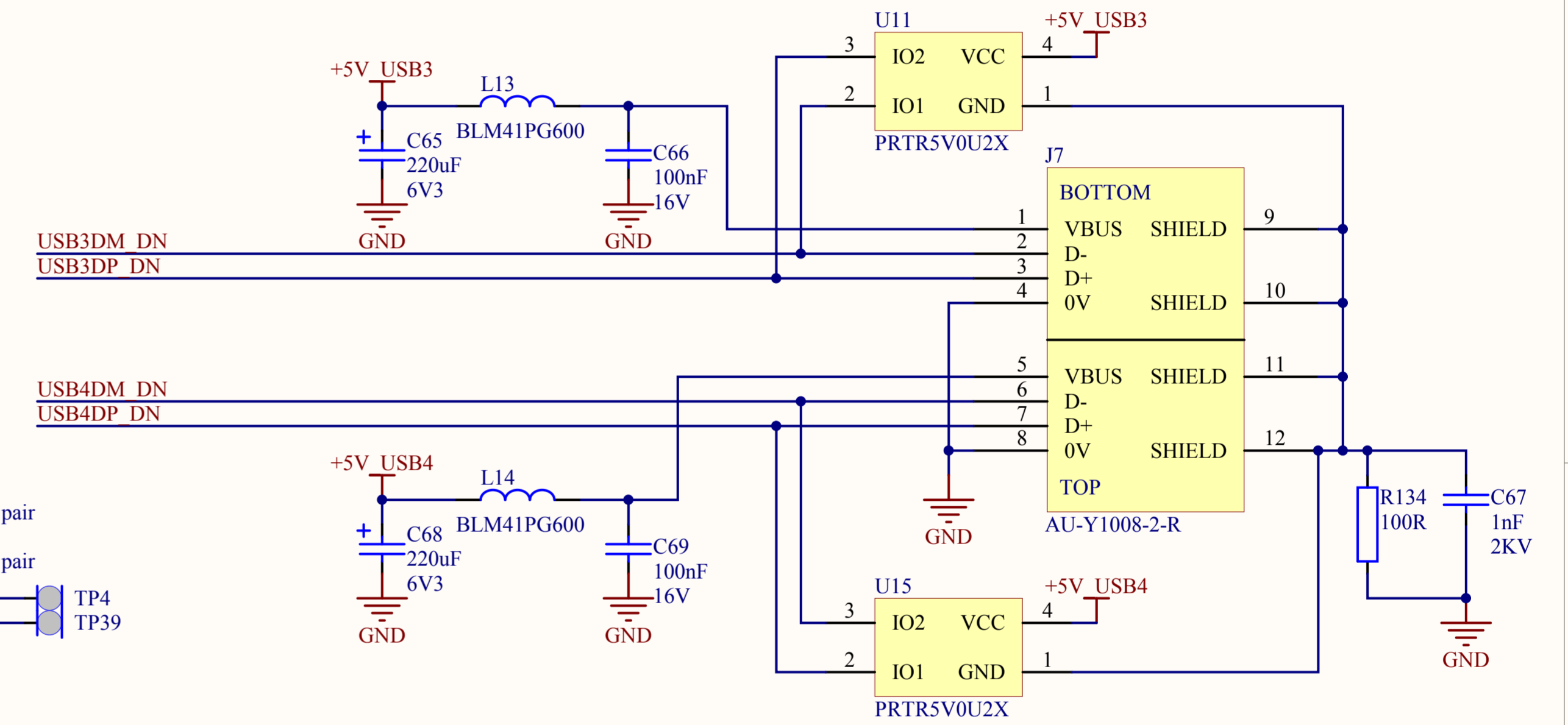
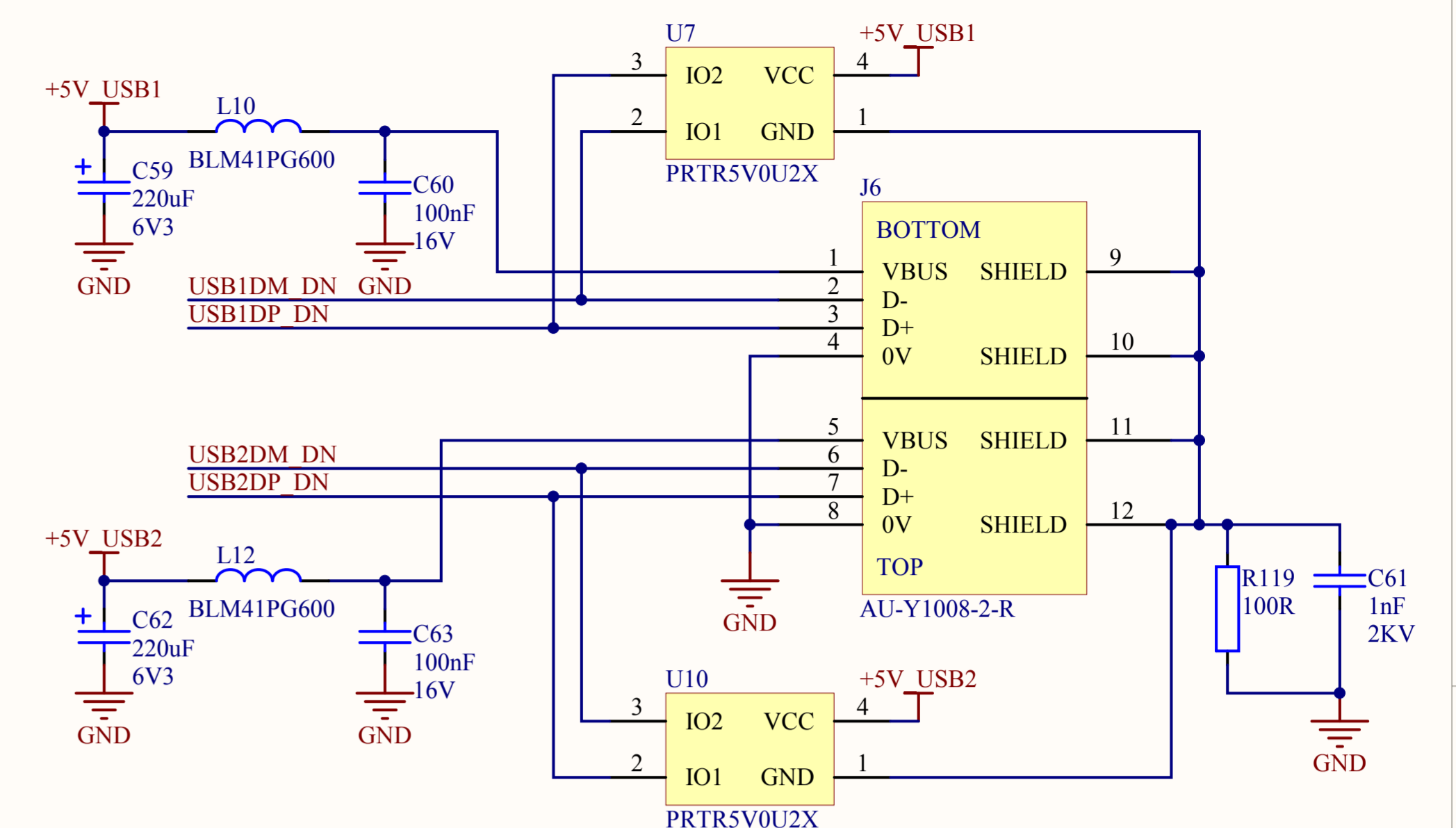
Title: Misc 2		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 4 of 11		Size: A4	www.device.solutions support@device.solutions
CONFIDENTIAL Do not reproduce without permission from Device Solutions Ltd			File: Opal1.MX6 Misc2.SchDoc



Title: CAN & Digital IO		Drawn By: MNW	 www.device.solutions support@device.solutions
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 5 of 11		Size: A4	
CONFIDENTIAL Do not reproduce without permission from Device Solutions Ltd			File: Opal i.MX6 IO.SchDoc



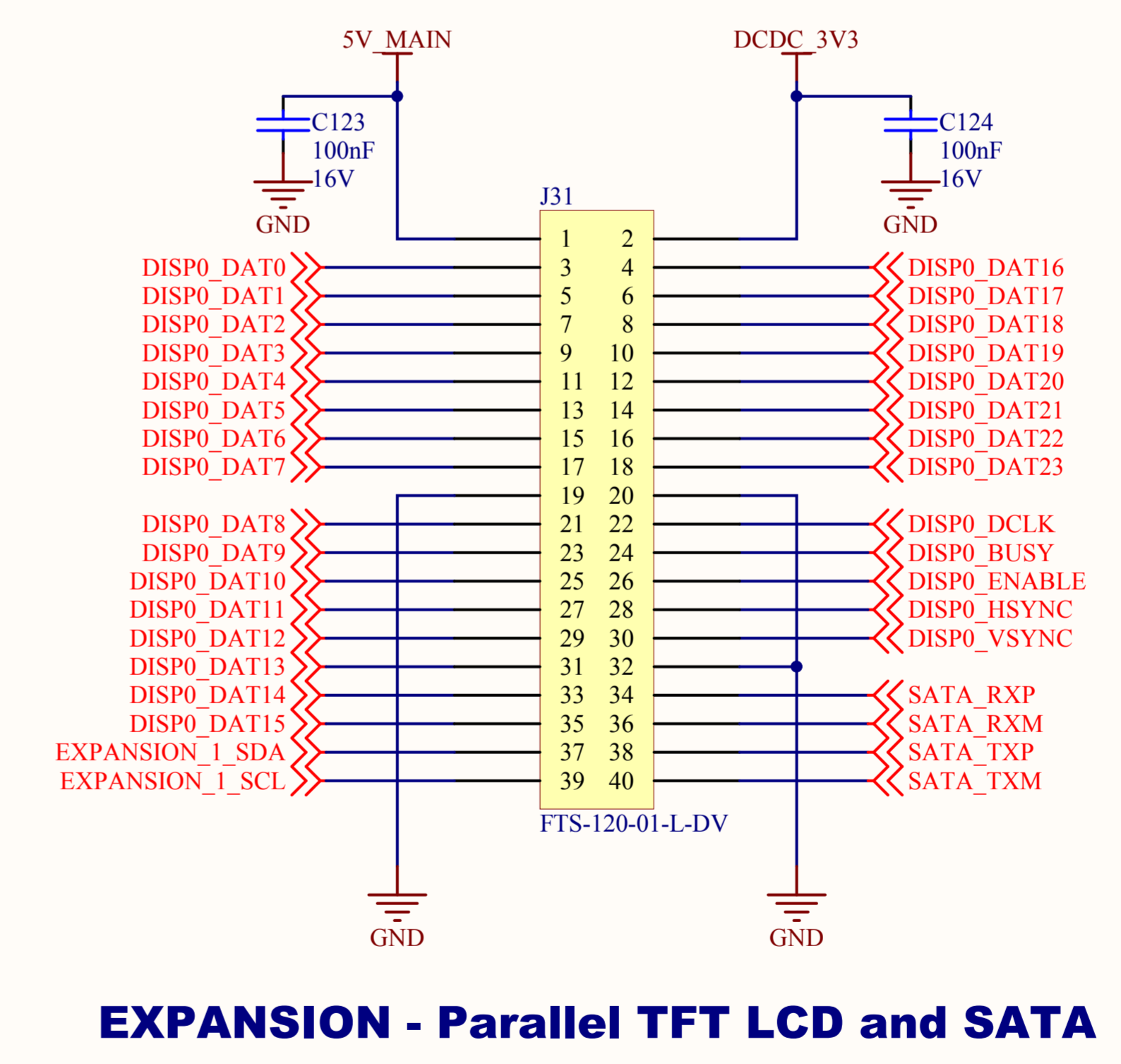
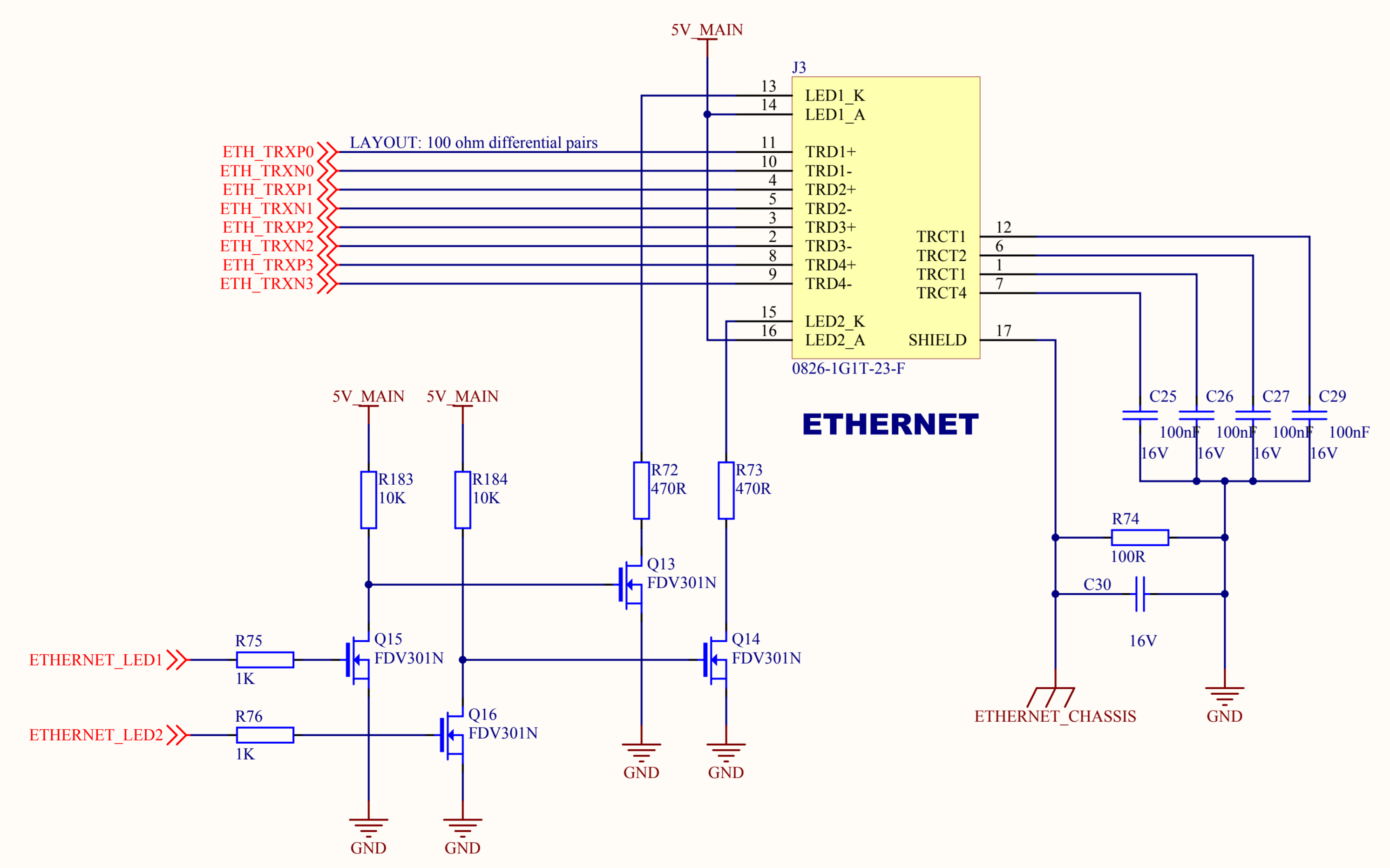
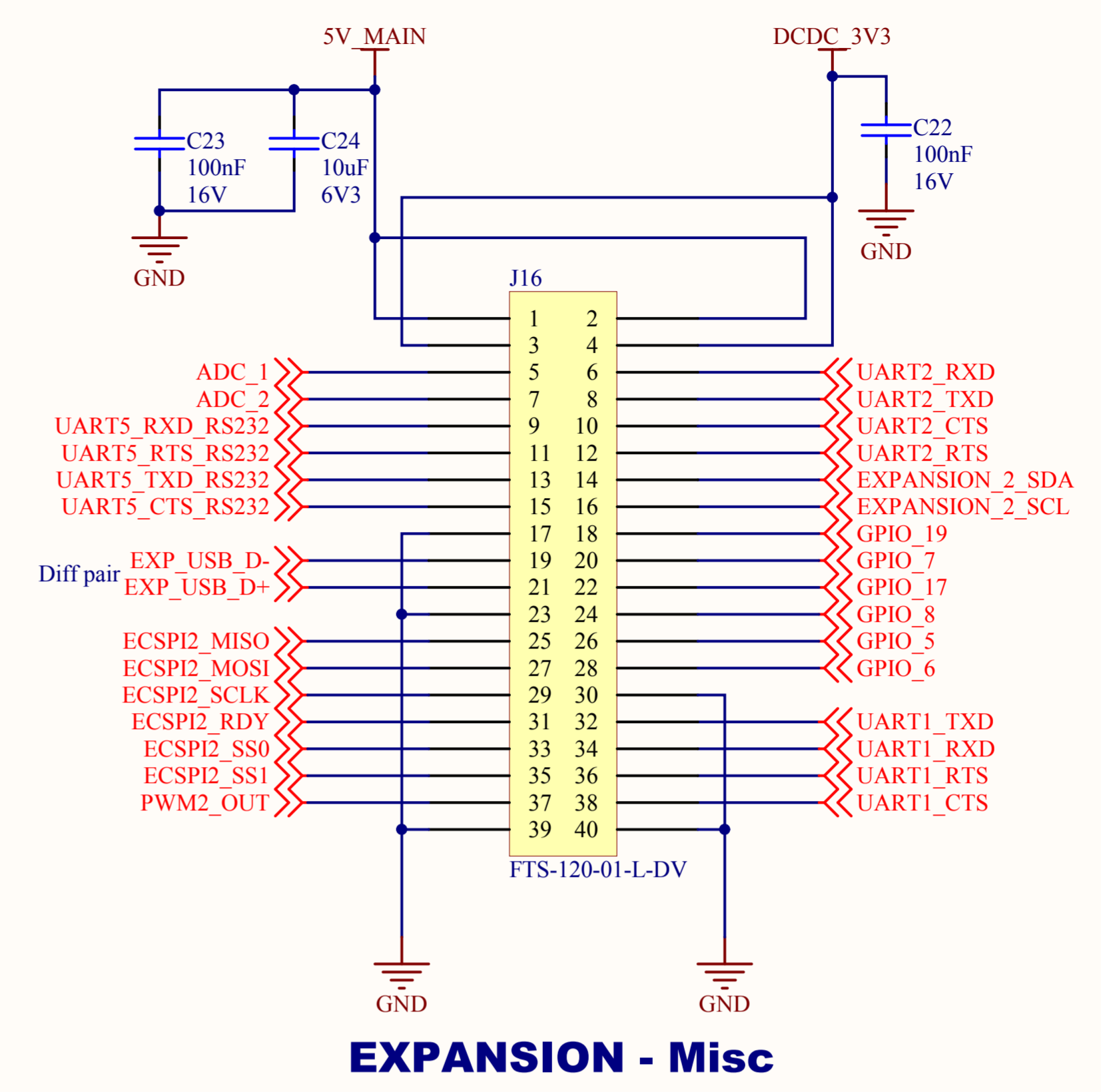
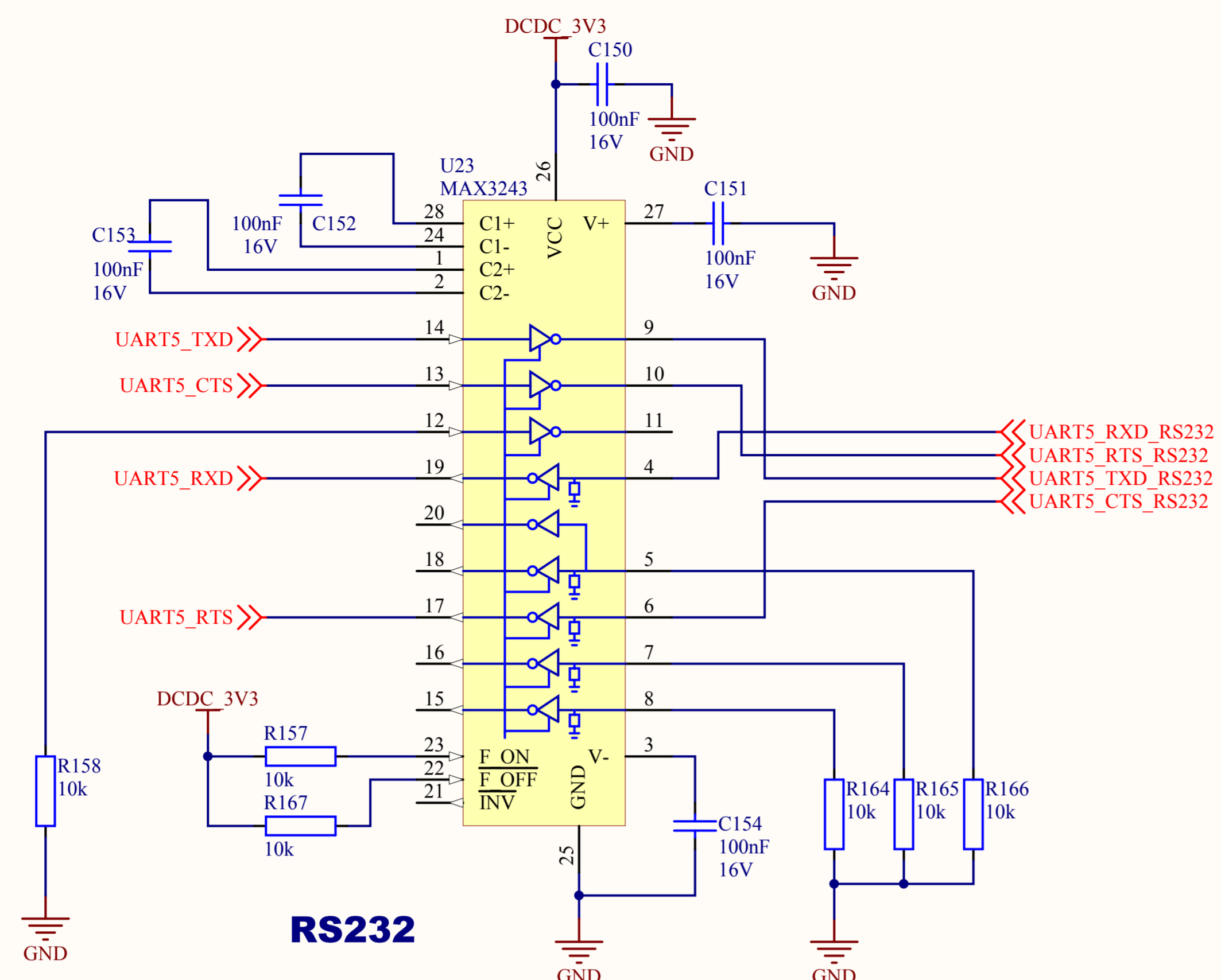
1	USB1DM DN	29	PRT1 PWR EN
2	USB1DP DN	26	PRT2 PWR EN
3	USB2DM DN	23	PRT3 PWR EN
4	USB2DP DN	20	PRT4 PWR EN
6	USB3DM DN	30	
7	USB3DP DN	39	
8	USB4DM DN	36	
9	USB4DP DN		
11	USB5DM DN	28	PRT1 OCS N
12	USB5DP DN	27	PRT2 OCS N
53	PCIe_USB_D+ Diff pair	4	PRT3 OCS N
54	PCIe_USB_D- Diff pair	22	PRT4 OCS N
55	EXP_USB_D+ Diff pair	21	
56	EXP_USB_D- Diff pair	35	
		38	
		37	
		51	LED_A1_N/PRT_SWP1
		49	LED_A2_N/PRT_SWP2
		47	LED_A3_N/PRT_SWP3
		33	LED_A4_N/PRT_SWP4
		31	LED_A5_N/PRT_SWP5
		17	LED_A6_N/PRT_SWP6
		15	LED_A7_N/PRT_SWP7
		50	LED_B1_N/BOOST0
		48	LED_B2_N/BOOST1
		34	LED_B3_N/GANG_EN
		32	LED_B4_N
		18	LED_B5_N
		16	LED_B6_N
		14	LED_B7_N




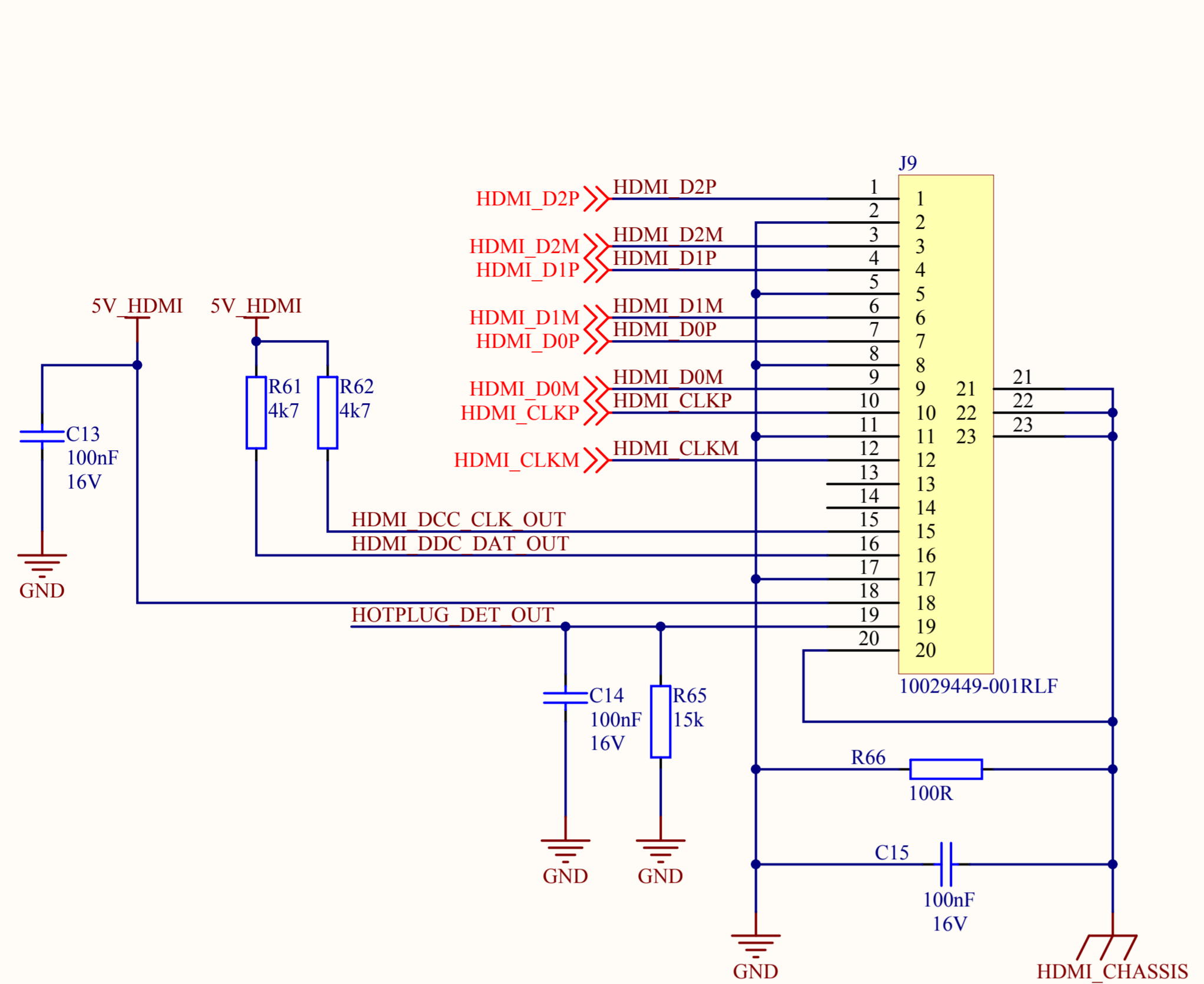
Title: USB		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 6 of 11		Size: A4	www.device.solutions
CONFIDENTIAL		support@device.solutions	

Do not reproduce without permission from Device Solutions Ltd

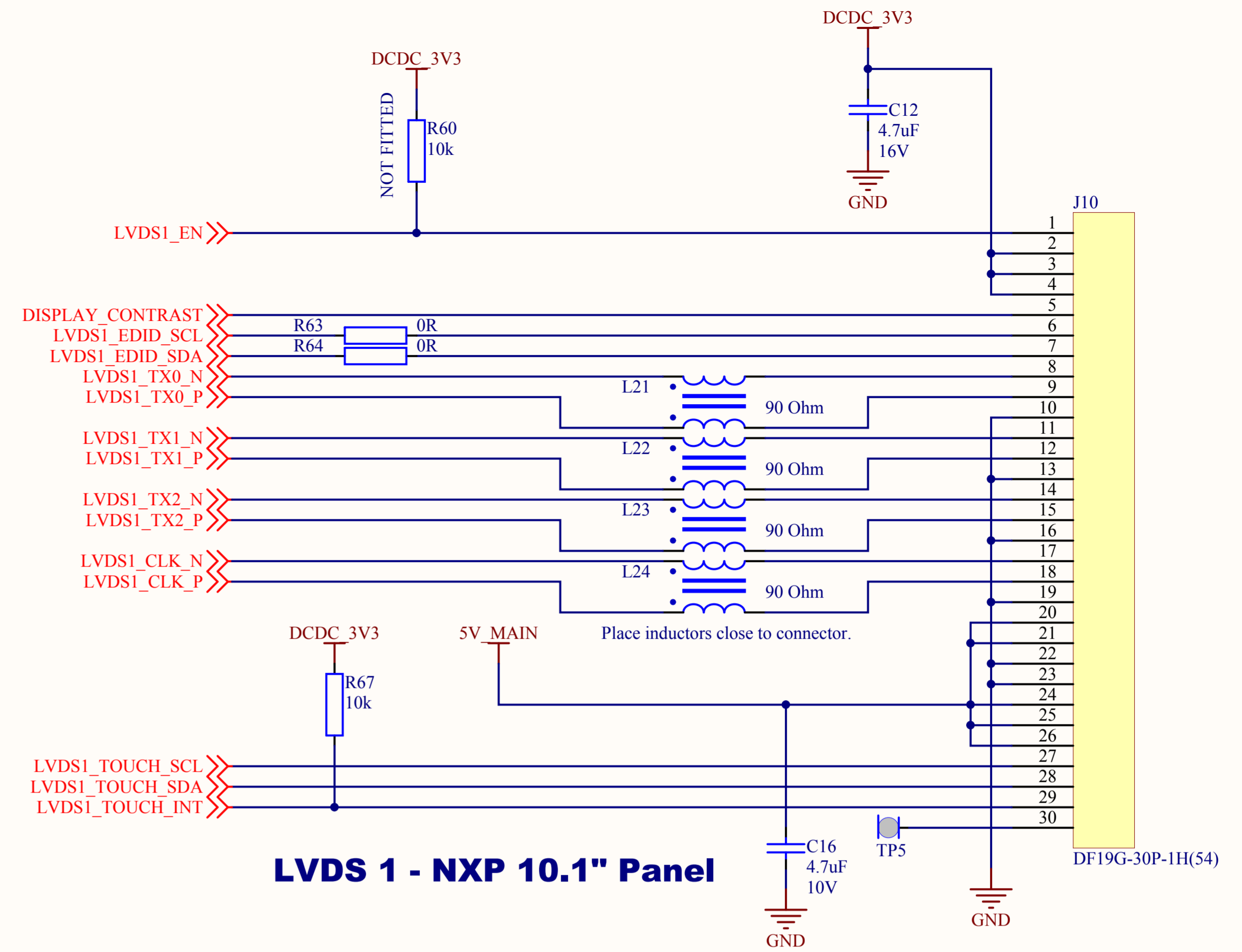
File: Opal1.MX6 USB.SchDoc



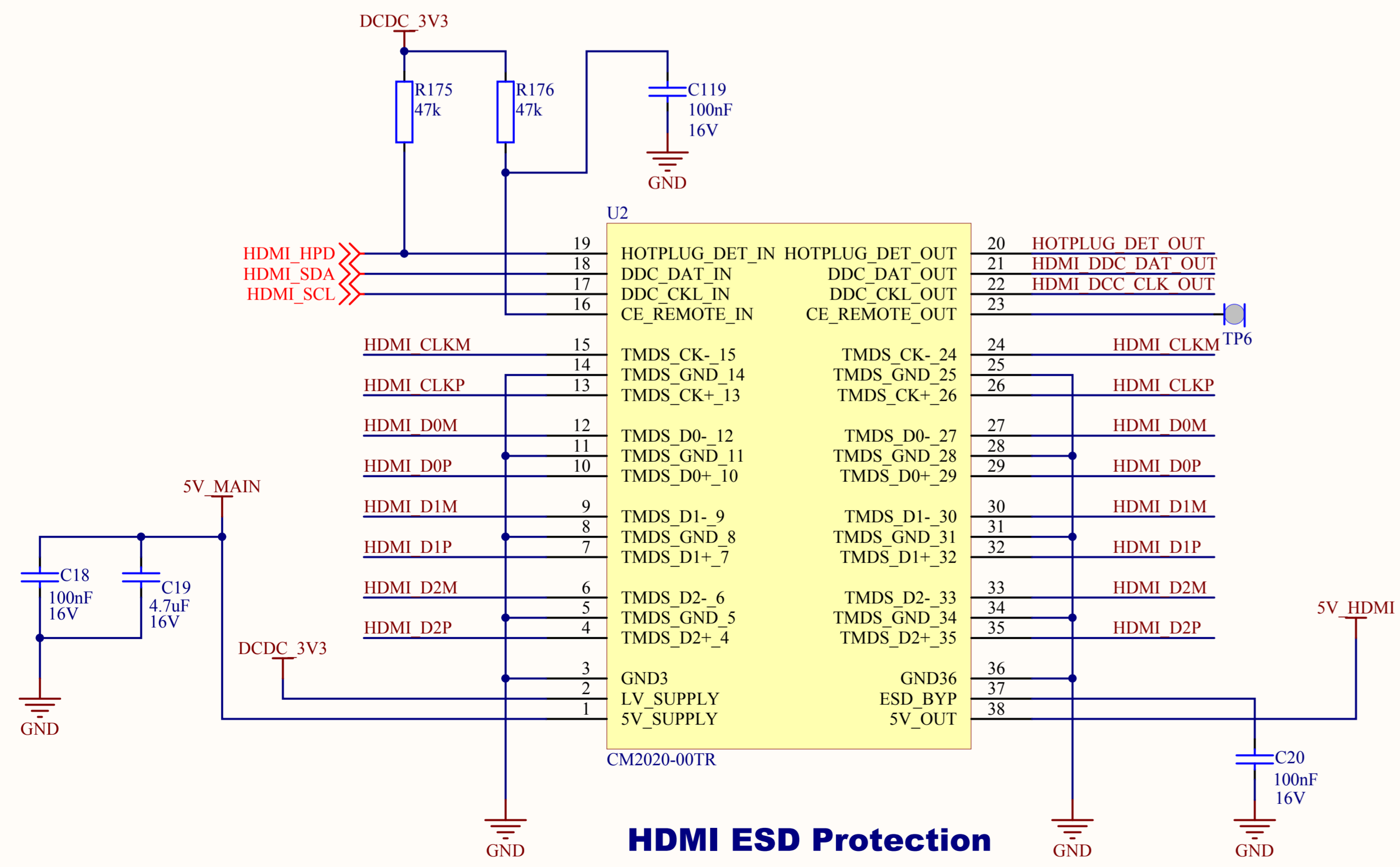
Title: Ethernet & Expansion		Drawn By: MNW	 www.device.solutions support@device.solutions
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 7 of 11		Size: A4	
CONFIDENTIAL			Do not reproduce without permission from Device Solutions Ltd
			File: Opal1.MX6 Ethernet & Expansion.SchDoc



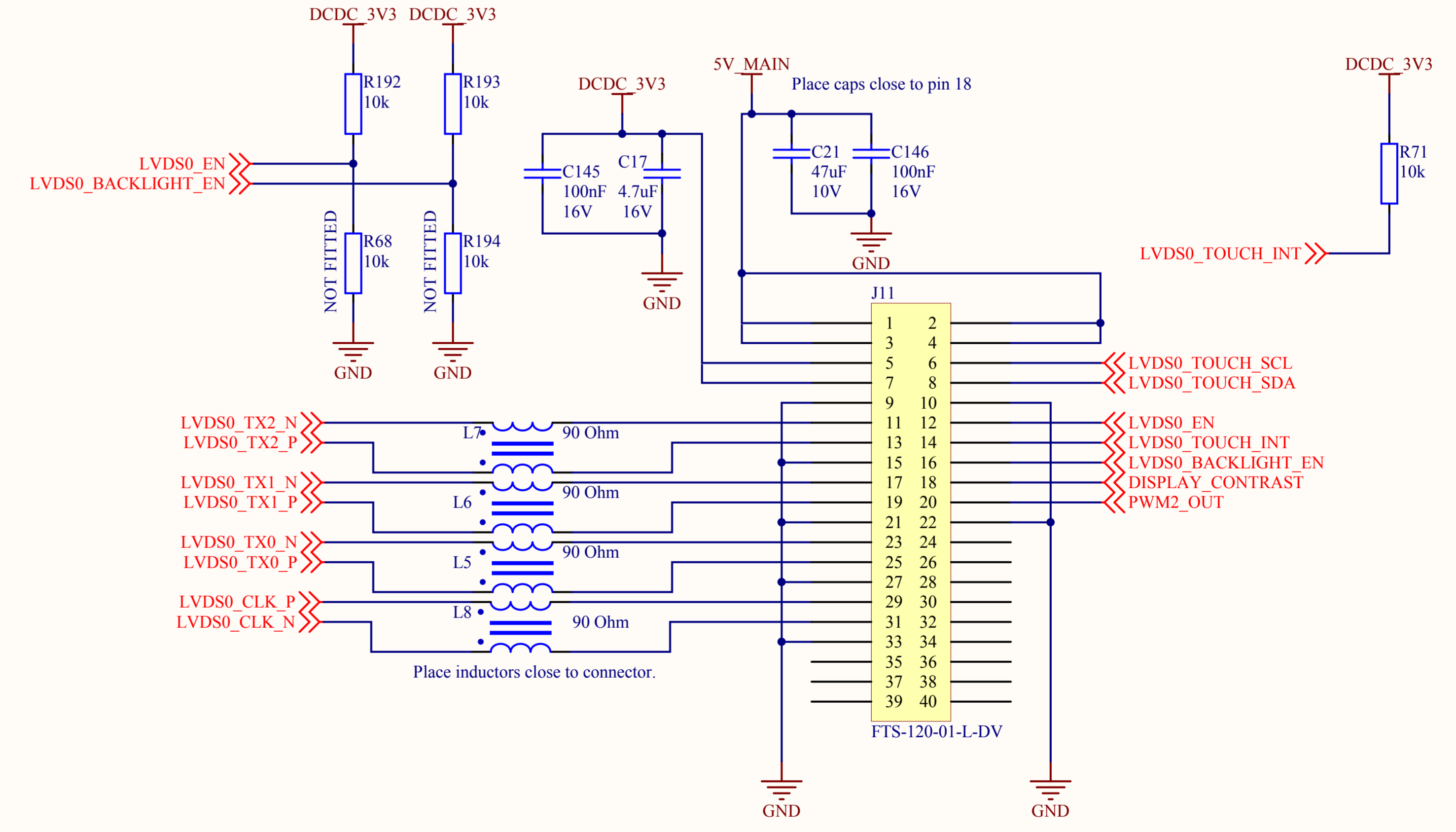
HDMI Connector




LVDS 1 - NXP 10.1" Panel

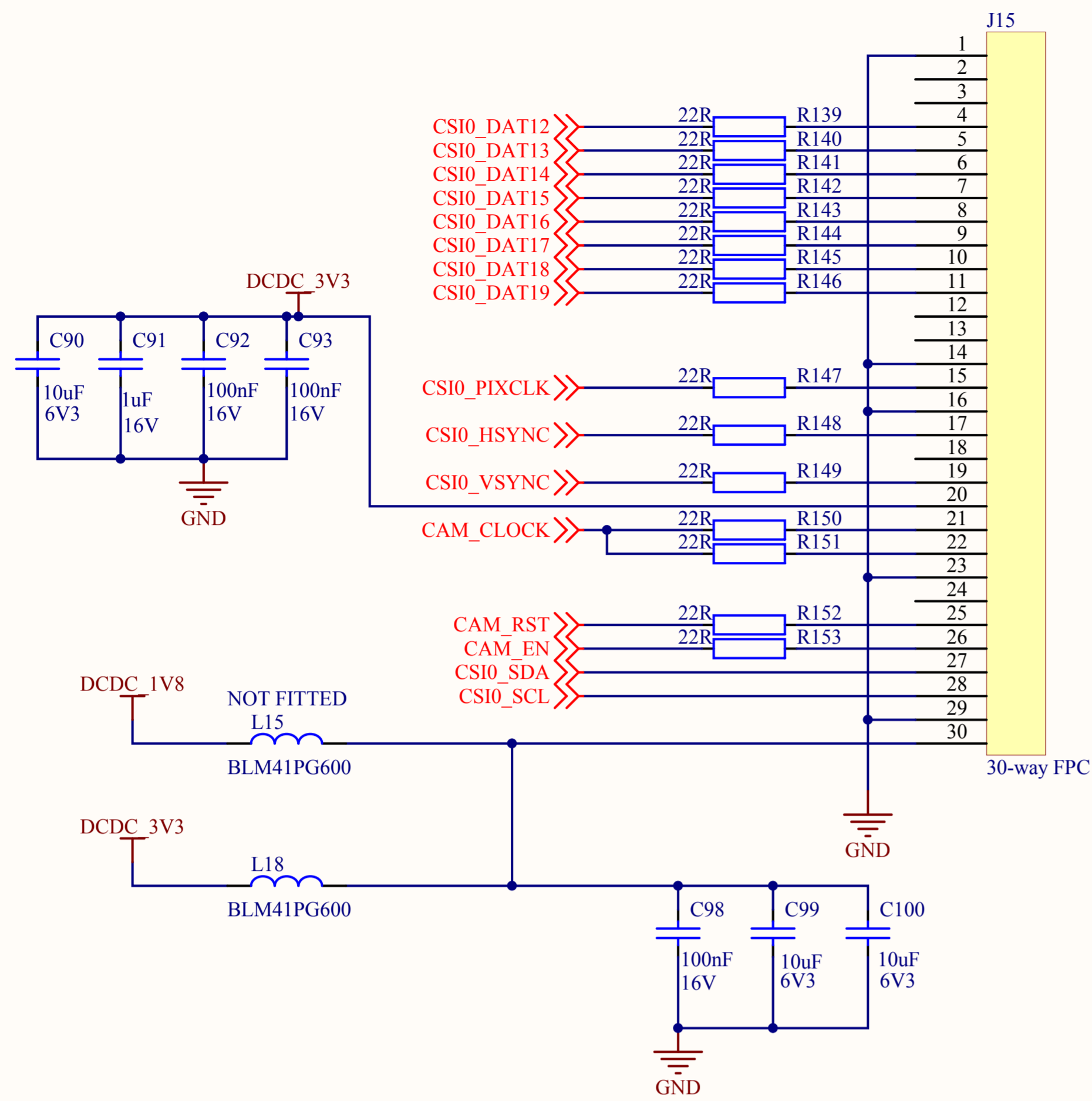


HDMI ESD Protection

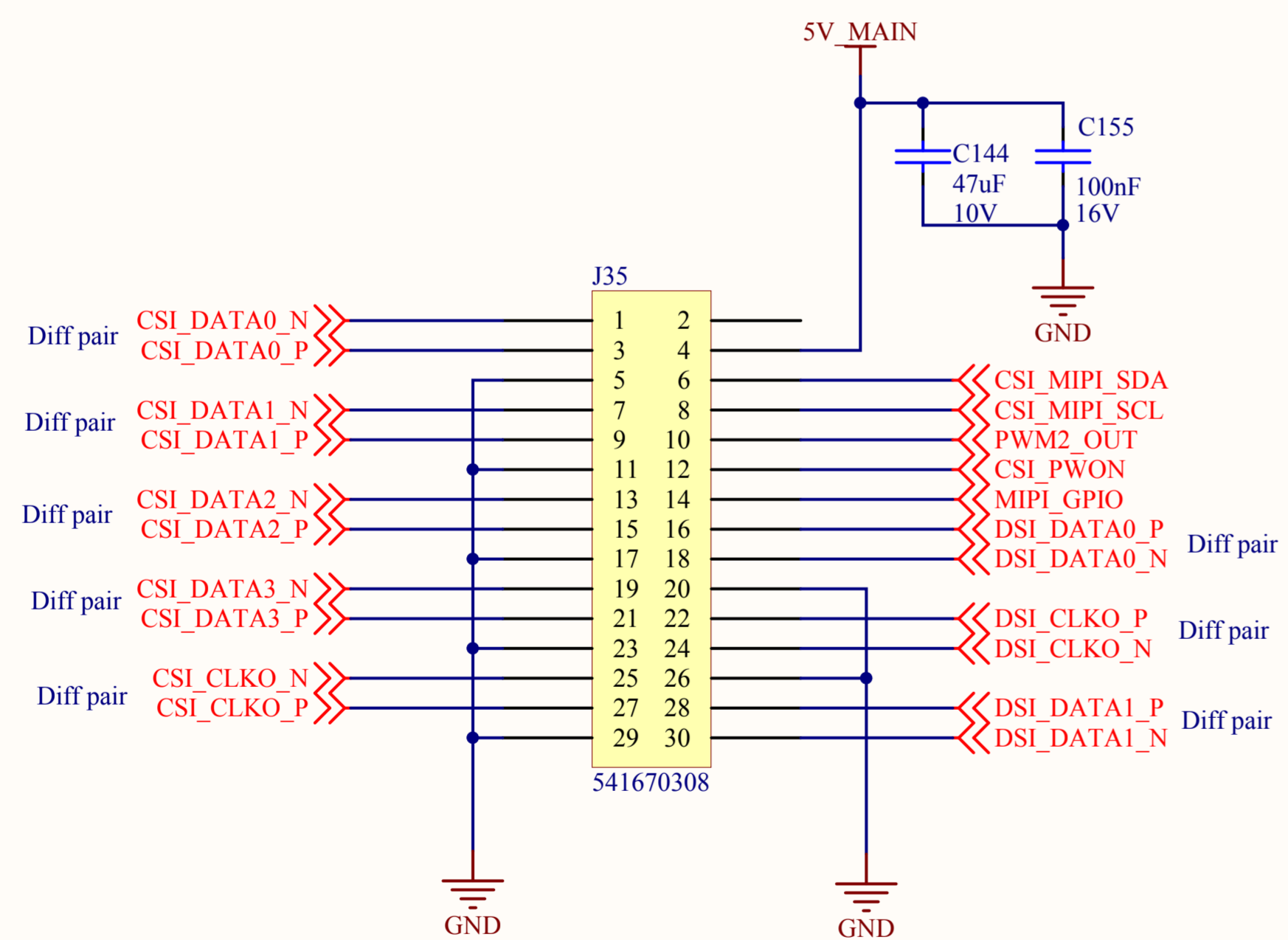


LVDS0 - Expansion Header

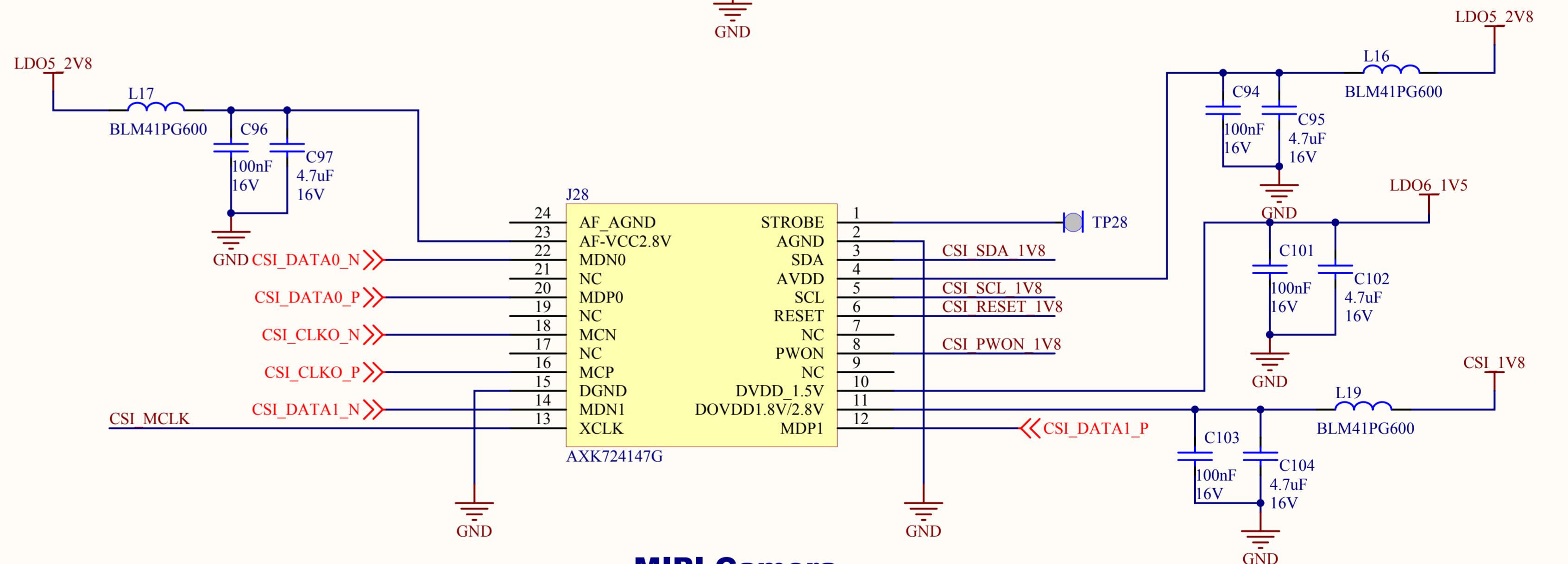
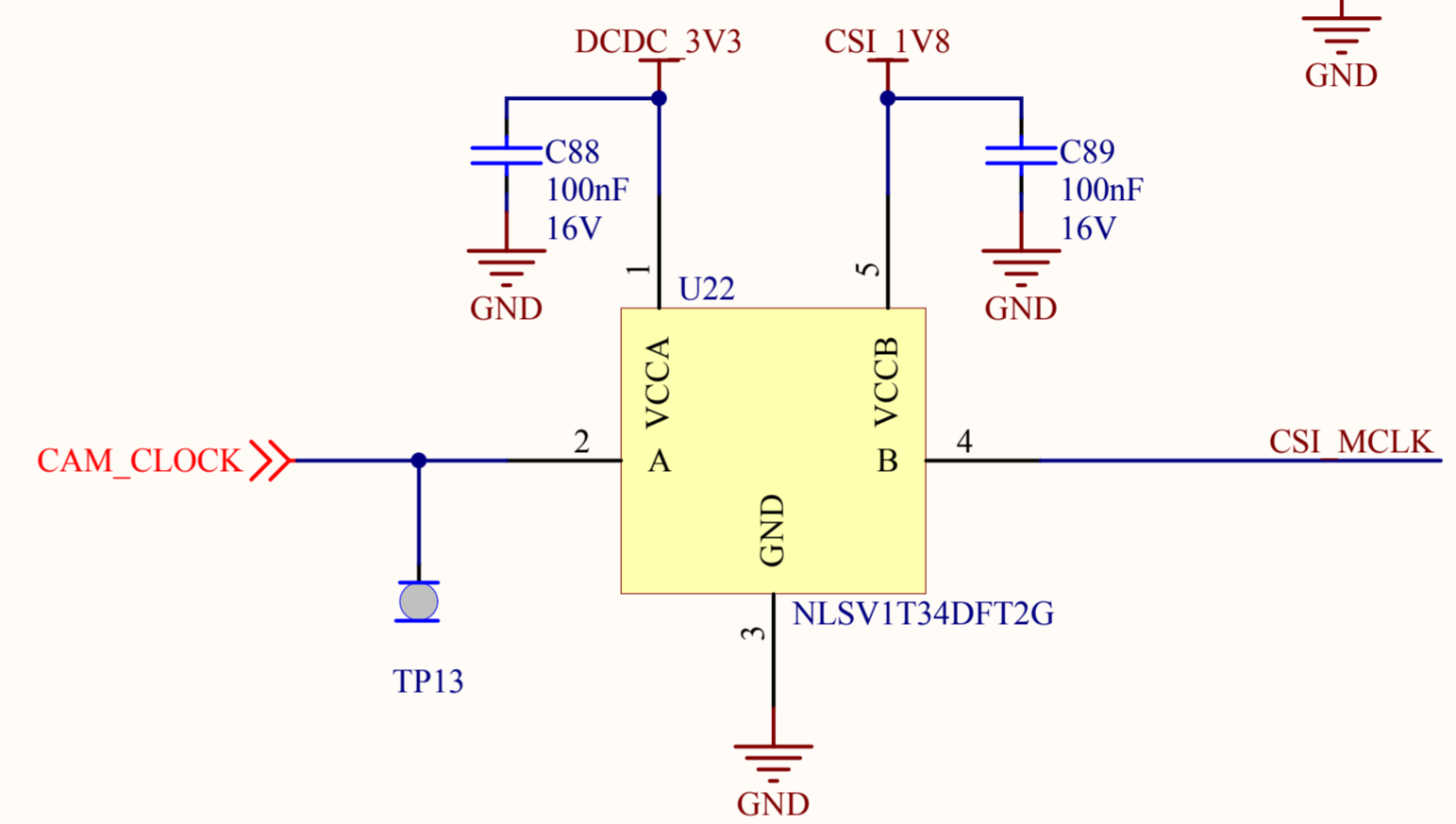
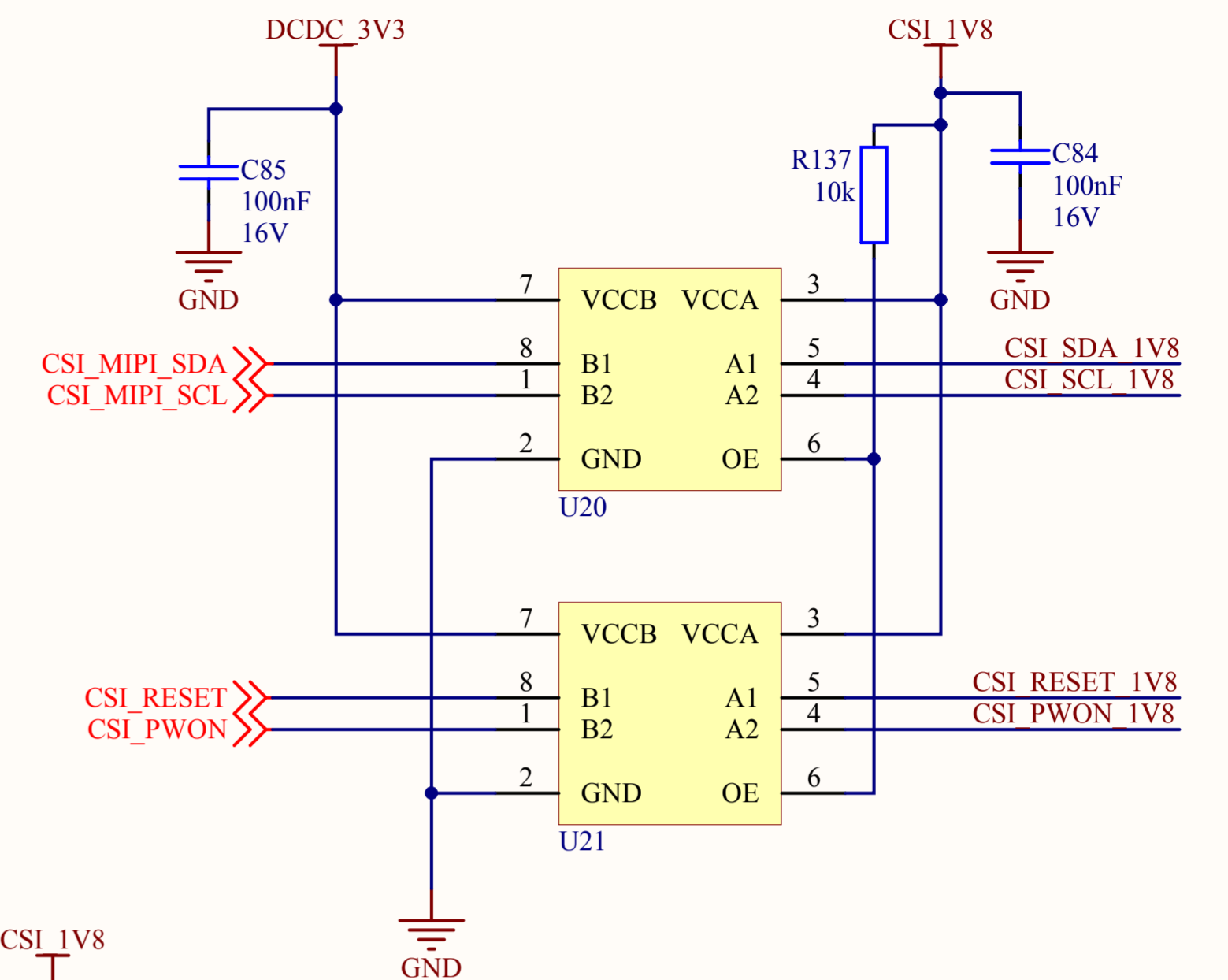
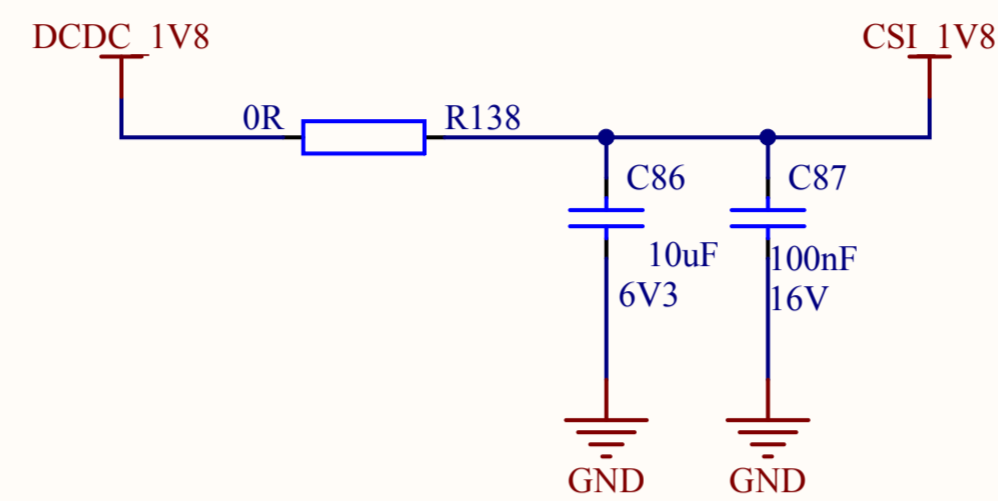
Title: Displays		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 8 of 11		Size: A4	www.device.solutions support@device.solutions
CONFIDENTIAL			File: Opal1.MX6 Display.SchDoc




CSI Camera

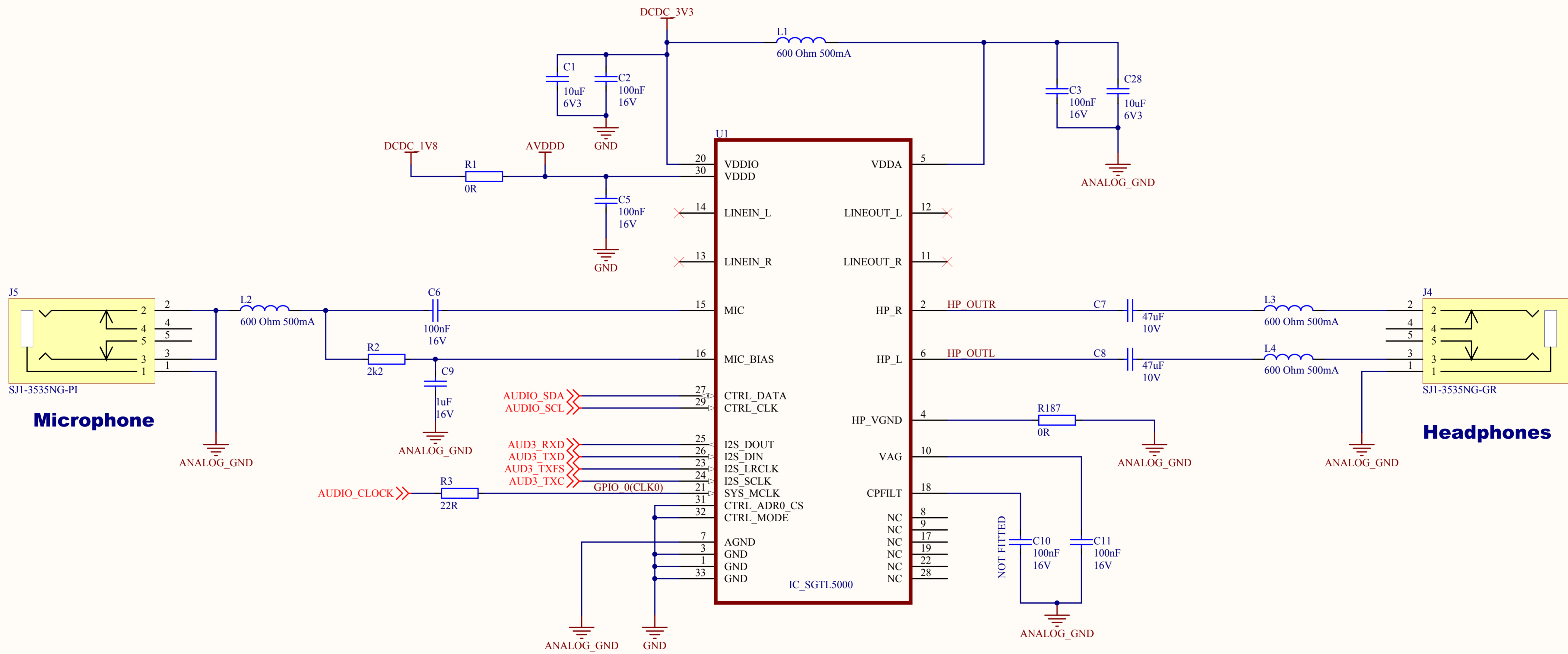


OPTIONAL MIPI Connector (with 4 lanes for DQ)

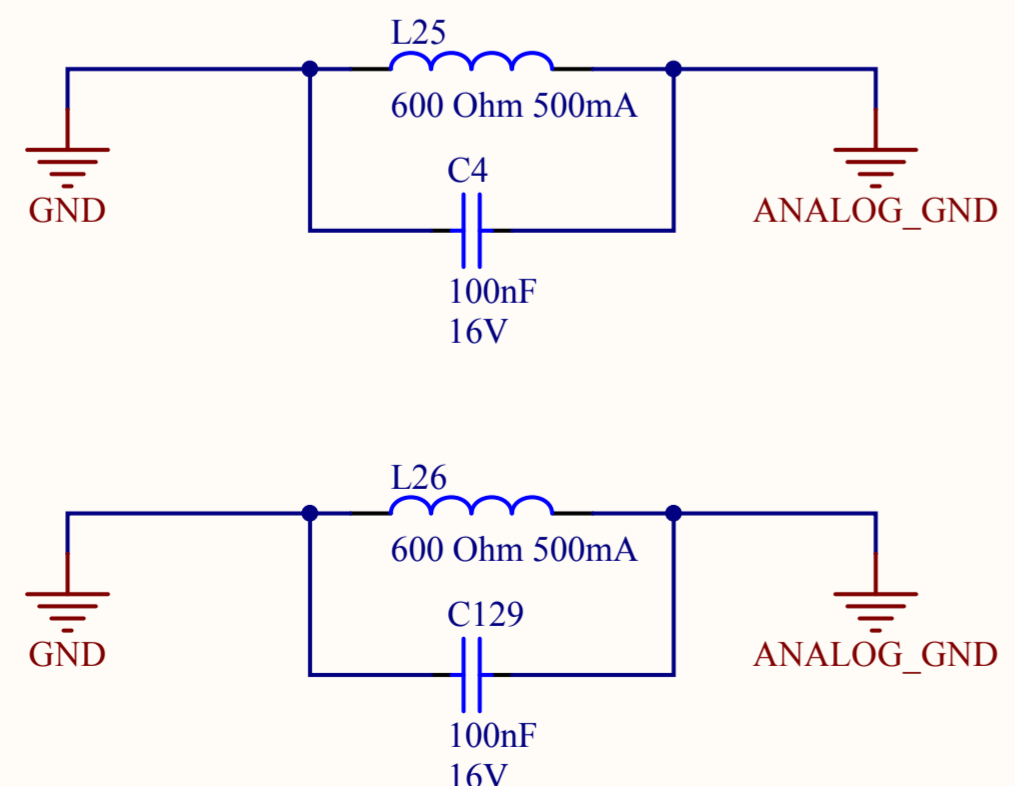



**MIPI Camera
LI-OV5640-MIPI-AF**

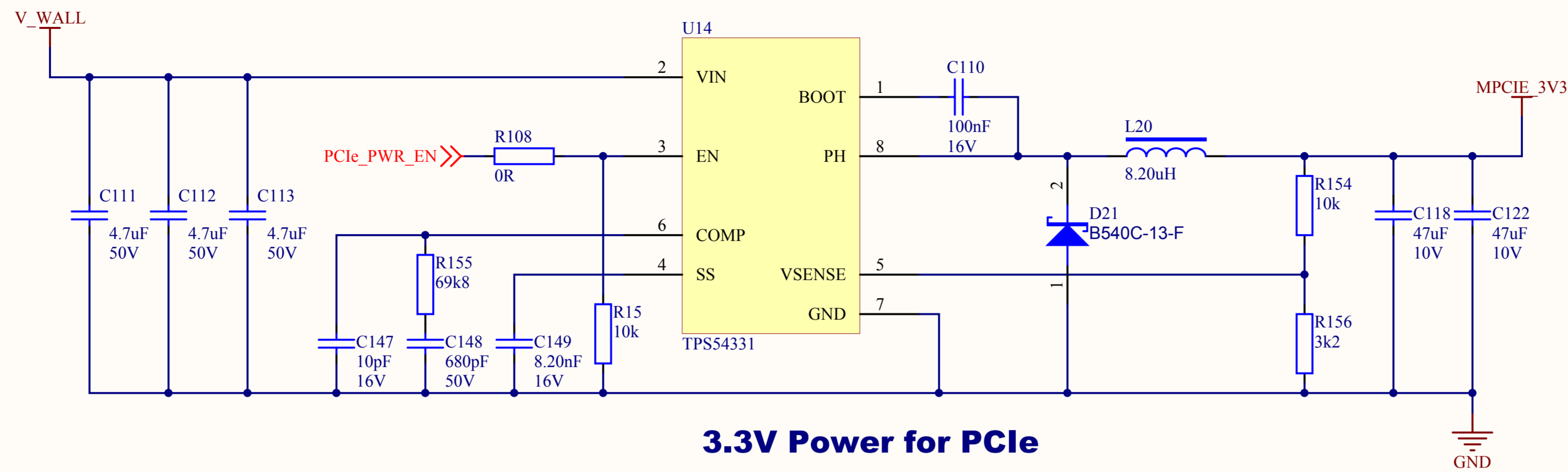
Title: Cameras		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 9 of 11	Size: A4	www.device.solutions support@device.solutions	
CONFIDENTIAL Do not reproduce without permission from Device Solutions Ltd			File: Opal i.MX6 Cameras.SchDoc



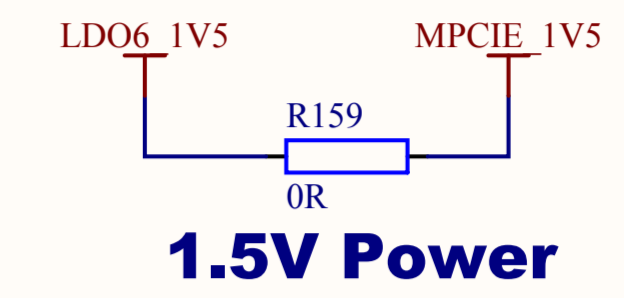
SGTL5000 Audio



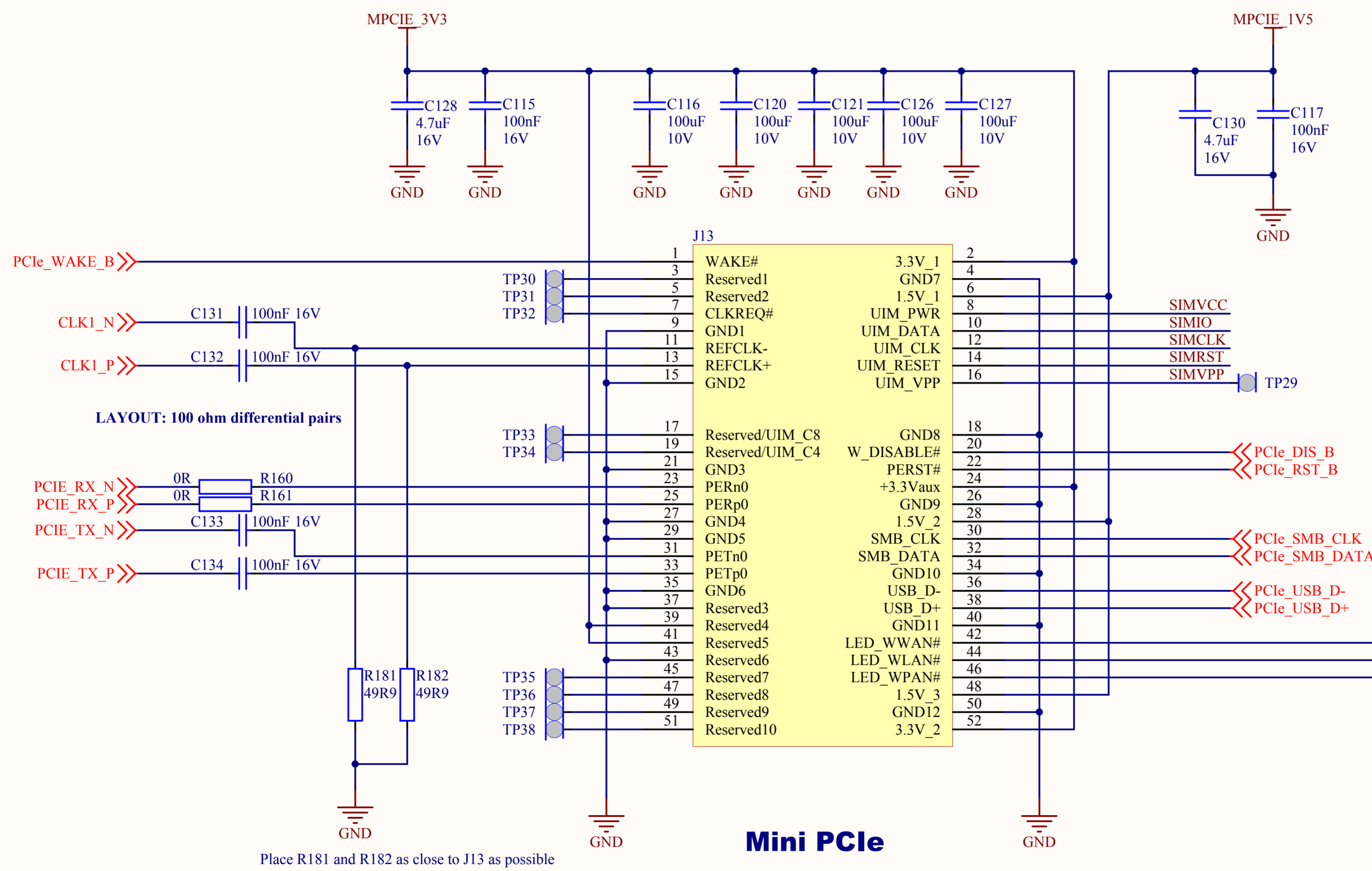
Title: Audio		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 10 of 11		Size: A4	www.device.solutions support@device.solutions
CONFIDENTIAL Do not reproduce without permission from Device Solutions Ltd			File: Opal i.MX6 Audio.SchDoc



3.3V Power for PCIe

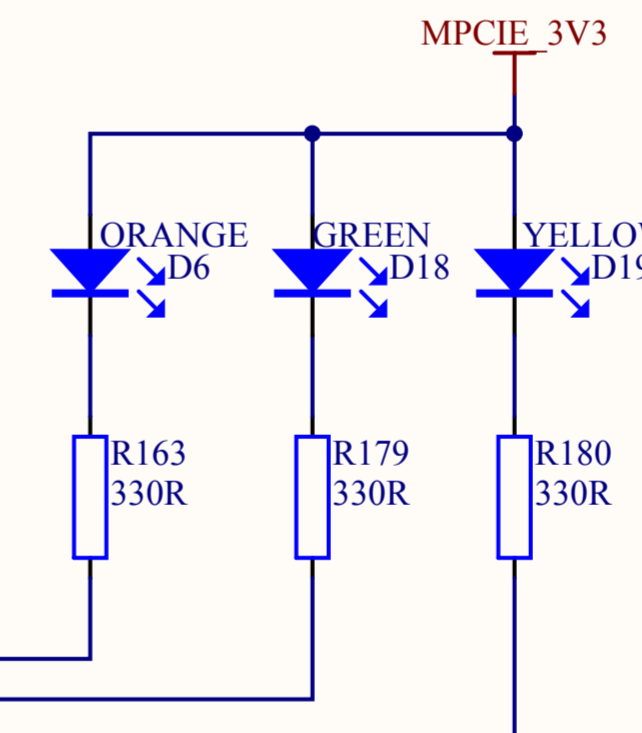
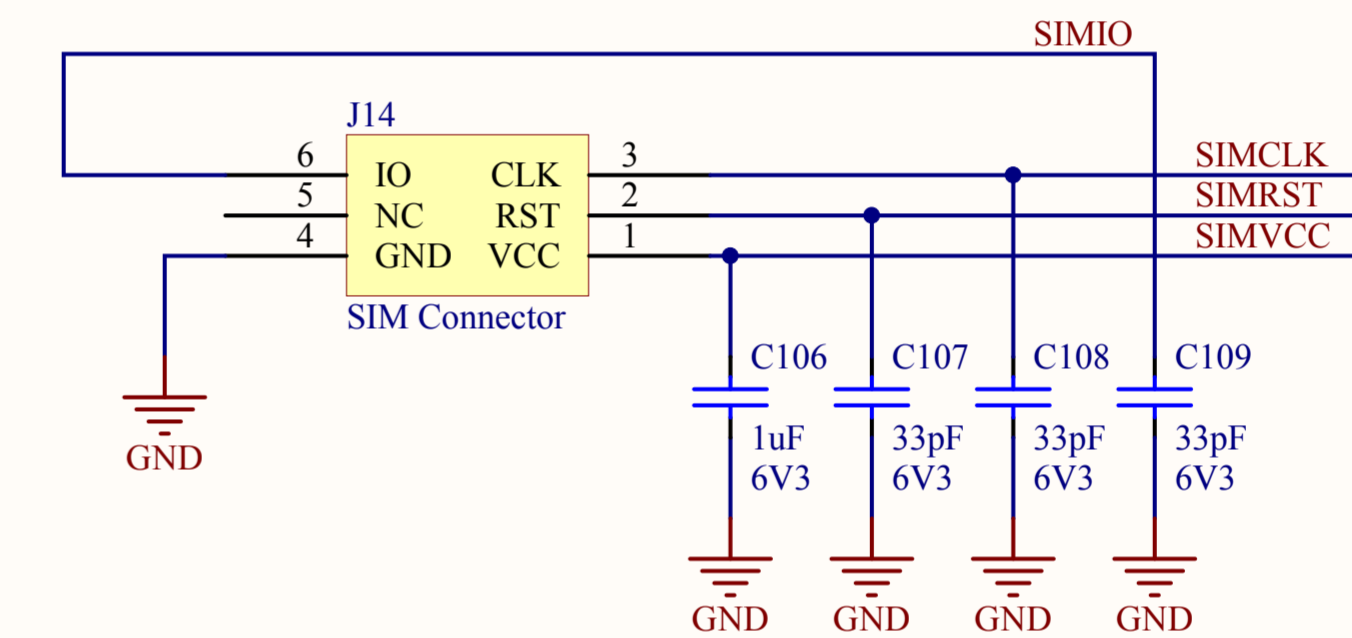


1.5V Power




Mini PCIe

Place R181 and R182 as close to J13 as possible



M8
Mini PCI Latch

Title: Mini PCIe		Drawn By: MNW	
Revision: D	Project: Opal6 DK	Date: 9 June 2016	
Sheet 11 of 11		Size: A4	www.device.solutions support@device.solutions
CONFIDENTIAL Do not reproduce without permission from Device Solutions Ltd			File: Opal1.MX6 PCIe.schdoc