

# SMARC Eval 2.0

## SMARC-Eval2 Evaluation Carrier for SMARC 2.0

TABLE OF CONTENT		
PAGE	DESCRIPTION	
1	Cover	
2	Block Diagram	
3	Power Diagram	
4	SMARC Carrier Connector	
5	DP Connector	
6	HDMI Connector	
7	LVDS Connector	
8	LVDS Backlight Connector	
9	eDP Connector	
10	Ethernet Connectors	
11	USB 3.0 Connectors	
12	USB 2.0 OTG Connector and USB 2.0 header	
13	CAN Transceivers	
14	mPCIe Connectors	
15	PCIe Connectors	
16	mSATA Connector	
17	uSD Connector	
18	High Speed Serial Ports	
19	SPI Flash Socket, I2C Expander	
20	Audio - HDA Codec	
21	Audio - I2S Codec	
22	Audio - Con + Mux	
23	GPIO Headers	
24	eSPI Header, Power Management Header, CSI	
25	Buttons	
26	Power Input connectors	
27	Power 5V0, 3V3	
28	Power 1V8, 1V5	
29	Power Discharge, LEDs, RTC	
30	Mechanics	


DRAWING REVISION HISTORY			
REV	DESCRIPTION	YYYY-MM-DD	APPROVED
0.1	Preliminary schematic	2016-10-06	
1.0	Rev 1100 - A00	2016-11-14	
2.0	Rev 1200 - B00	2017-04-07	
3.0	Rev 1300 - C00	2017-07-26	
4.0	Rev 1400 - D00	2017-11-17	

### NOTES


- All resistor values are in Ohms. Tolerance shown for less than 1%
- All capacitor values are in Farads.
- A "NONE" next to a reference designator indicates a part that should not be installed.
- A "#" in a signal name or pin name indicates an active logic level low.
- Differential signal name are recognized by a trailing "+" for positive and "-" for negative pair members.
- All voltage supply rails shall begin with the characters "V\_". Grounding connections shall begin with "GND".
- The following symbols represent global signals. Note that multiple instances of, for example, GND will append a trailing index as a visible netname for each isolated rail.


 are digital ground (GND);

 are analog ground (GNDA);


 are chassis ground (SHIELD);

 are specific voltage supply.

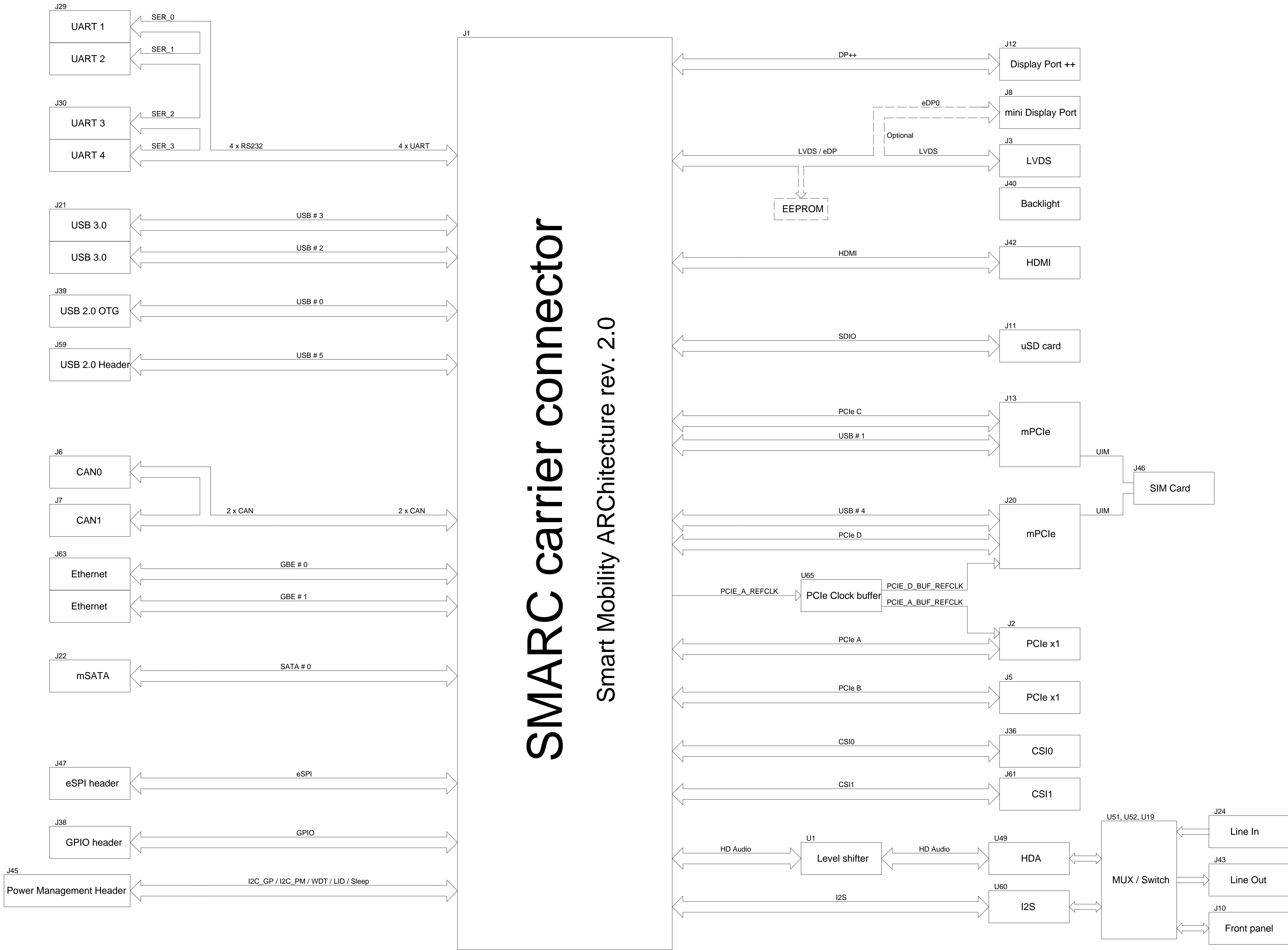
 ZNL20  
This symbol highlighting the layout recommendation.

 This symbol highlighting configuration informations.

I2C Bus Signal	Ref Des	Address (7 bit)	Description
I2C GP	U53 U60	0x20 0x1A	IO Expander I2S Audio Codec
I2C PM	U78 U69 U74 J13 Device J20 Device J5 Device J2 U65 J22 Device J45	0x57 0x22 0x24 Device Device Device Device 0x6D Device Device	General Purposse EEPROM IO Expander IO Expander mPCIe Connector A mPCIe Connector B PCIe x1 Connector PCIe x1 Connector PCIe Clock Buffer mSATA Connector Power Management Header
I2C CAM0	J60	Device	CSI0 Camera Connector
I2C CAM1	J61	Device	CSI1 Camera Connector
I2C LCD	J3 U72	Device 0x50	LVDS Connector LVDS EEPROM


PROJECT		SMARC Eval 2.0		 <b>kontron</b>	
		ADS2 - SMARC Eval 2.0			
BLOCK ID		DIVISION	NAME	DATE YYYY-MM-DD	
Schematic1 ( 1 of 30 )		CREATED:	KEEDC JM, JH ,MV	2017.11.17	
SHEET		VERIFIED:	KEEDC MH	2017.11.20	
01 First Page		APPROVED:			
PCB ID	PCB INDEX	LAST MODIFIED		PAGE	DRAWING ID
1062-0139	1400A	20/11/2017:15:03		1 OF 30	SCH 1400
				REV	D00

Block Diagram

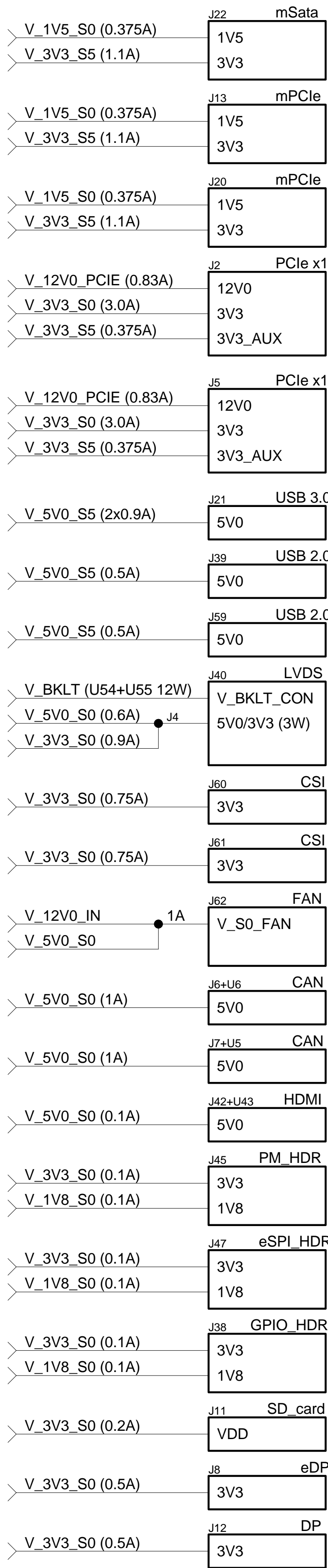
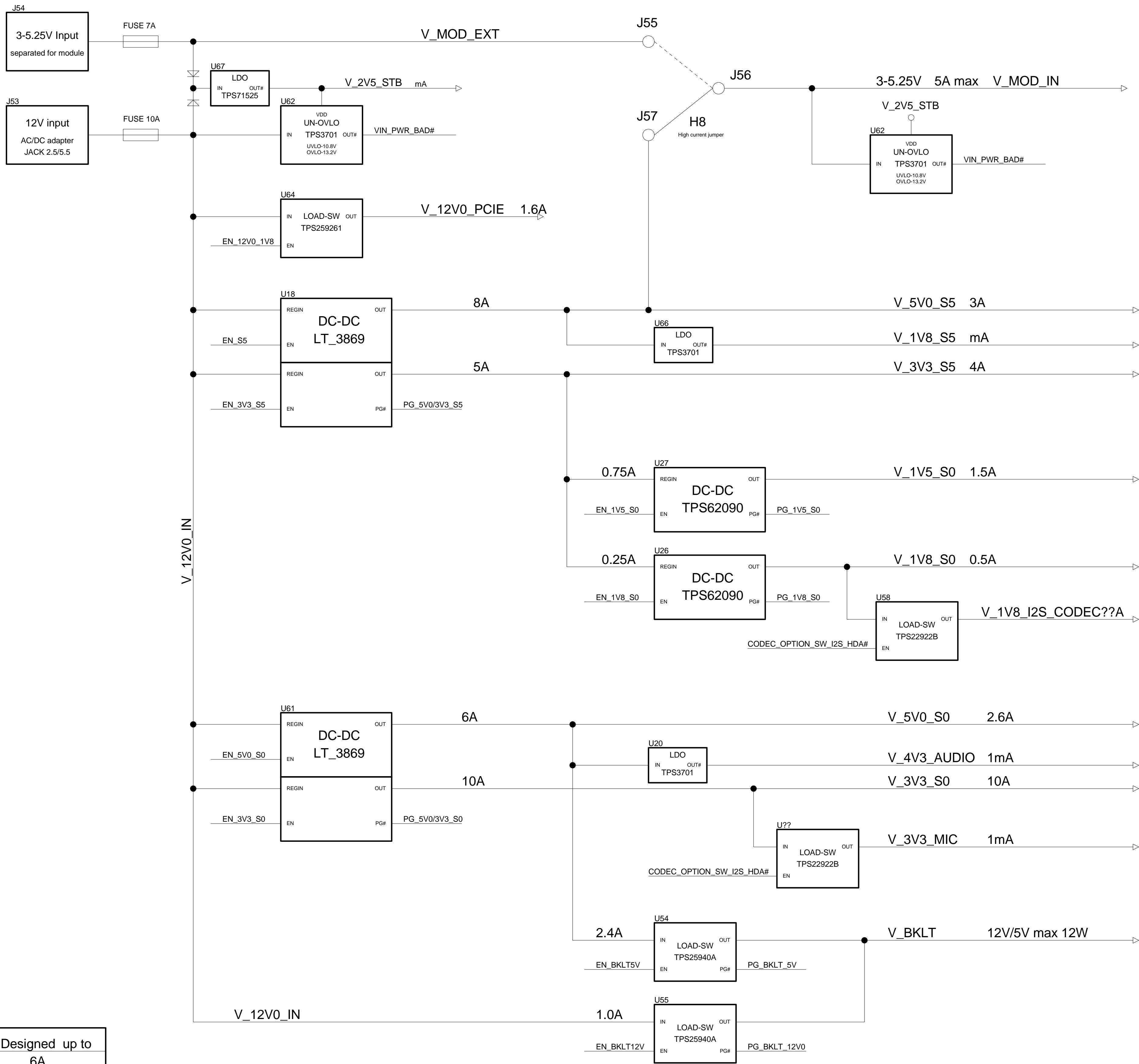


SMARC carrier connector

Smart Mobility ARChitecture rev. 2.0

PROJECT			SMARC Eval 2.0			 <b>kontron</b>					
			ADS2 - SMARC Eval 2.0								
BLOCK ID						DIVISION		NAME		DATE YYYY-MM-DD	
Schematic1 ( 2 of 30 )						CREATED: KEEDC		JM, JH ,MV		2017.11.17	
						VERIFIED: KEEDC		MH		2017.11.20	
						APPROVED:					
SHEET											
02 Block Diagram											
PCB ID		PCB INDEX		LAST MODIFIED		PAGE		DRAWING ID		REV	
1062-0139		1400A		20/11/2017:15:03		2 OF 30		SCH 1400		D00	

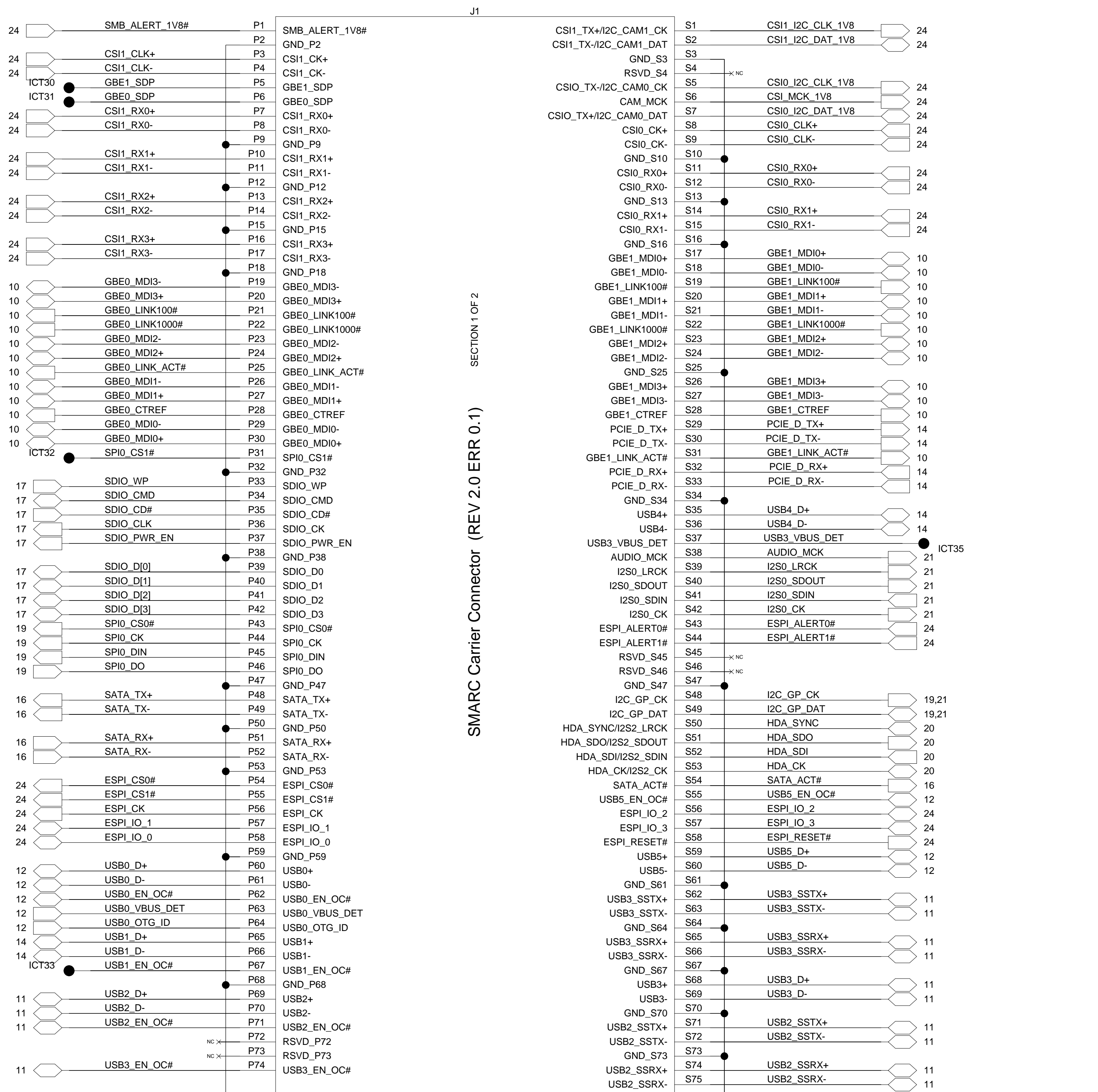
# Power Diagram



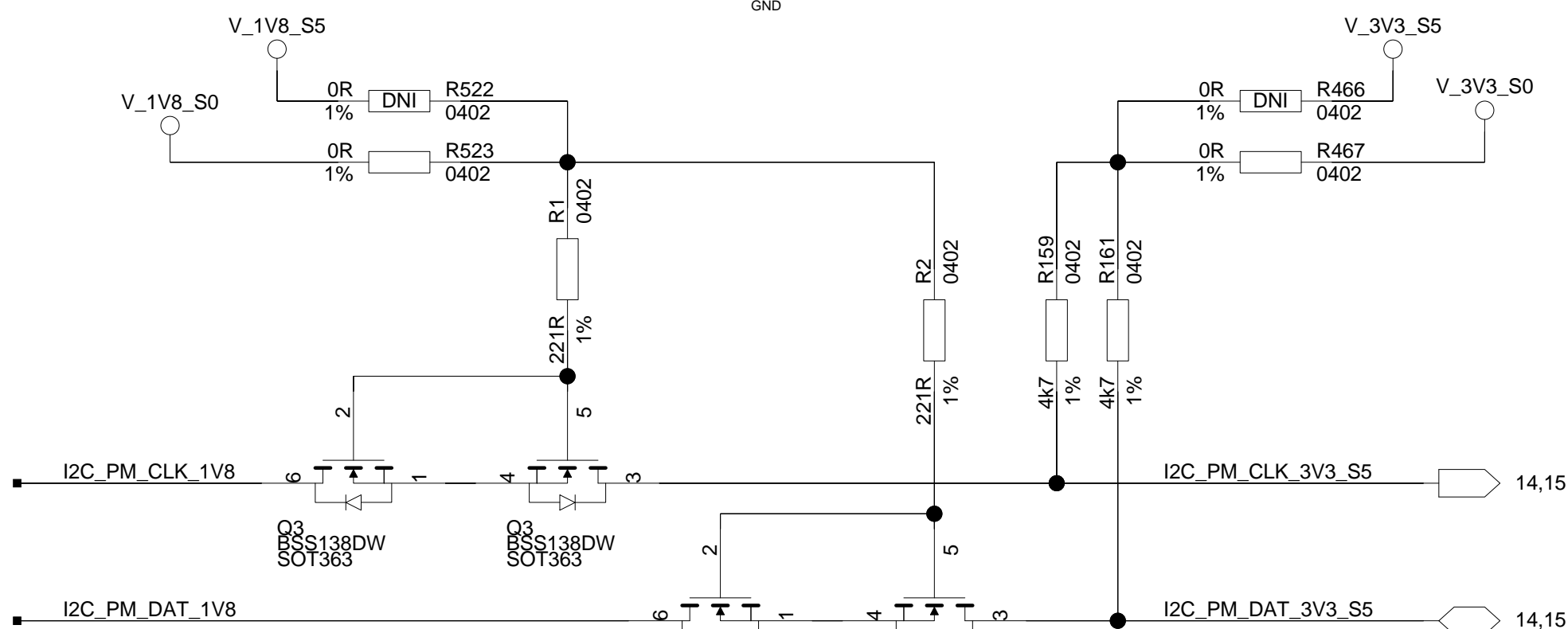
Rail	Designed up to
V_5V0_S0	6A
V_5V0_S5	8A
V_3V3_S0	10A
V_3V3_S5	5A
V_1V8_S0	0.5
V_1V5_S0	1.5



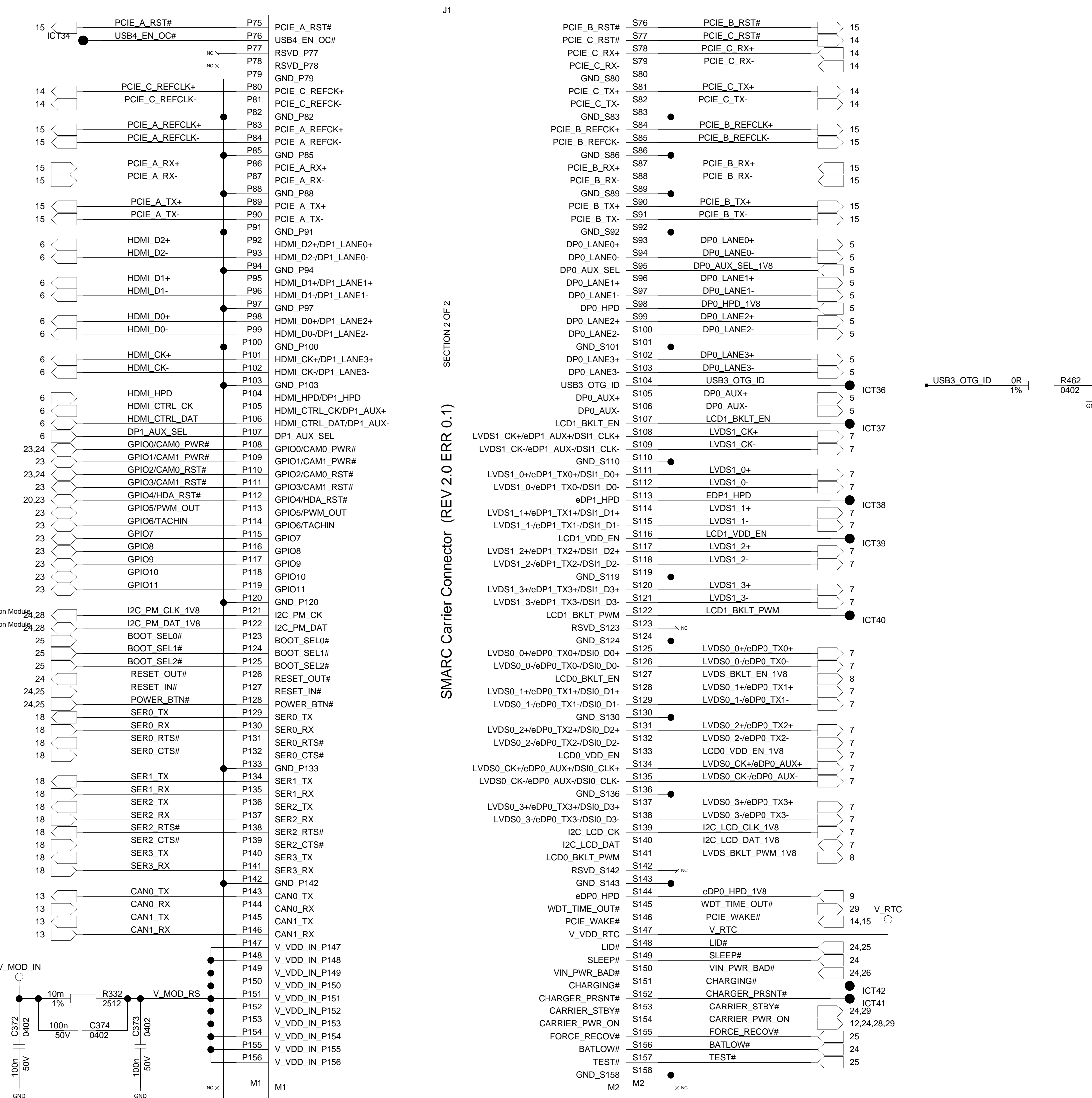
# SMARC Connector



\*check mechanical layer to see standoff info



I2C\_PM S5/S0 selection  
Place R522, R466 for enabling I2C\_PM bus in S3,S5 state  
Place R523, R467 for disabling I2C\_PM bus in S3,S5 state and eliminate leakage  
Never place R522 and R523 at same time same as R466 with R467

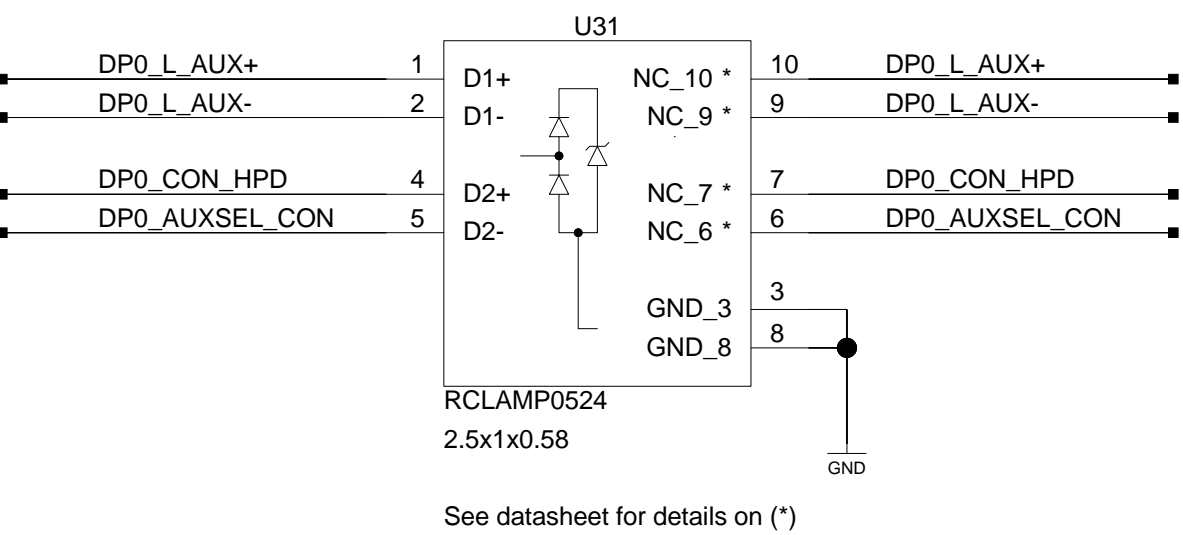
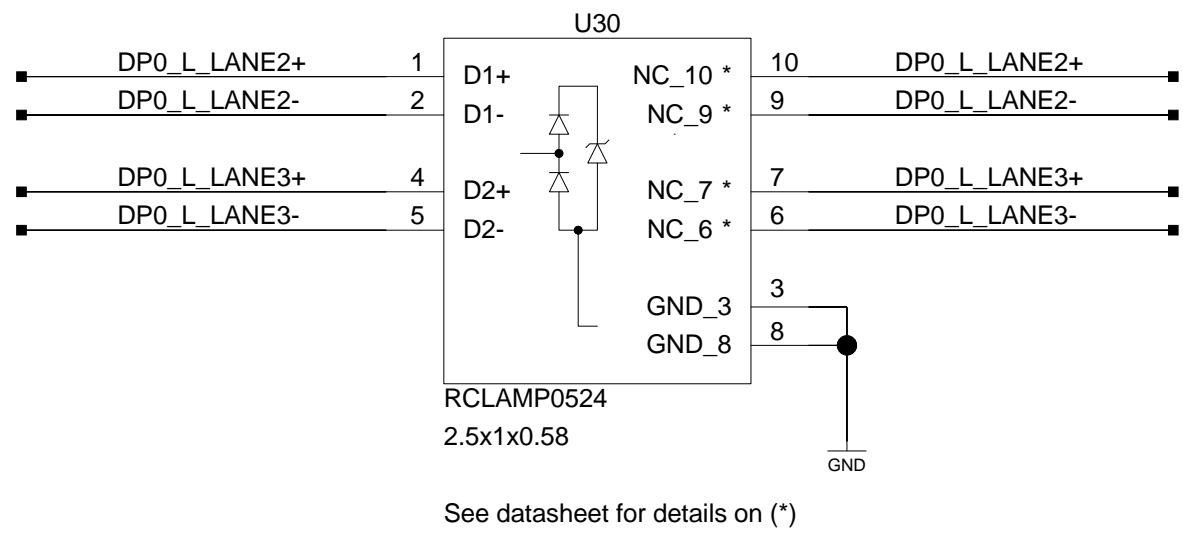
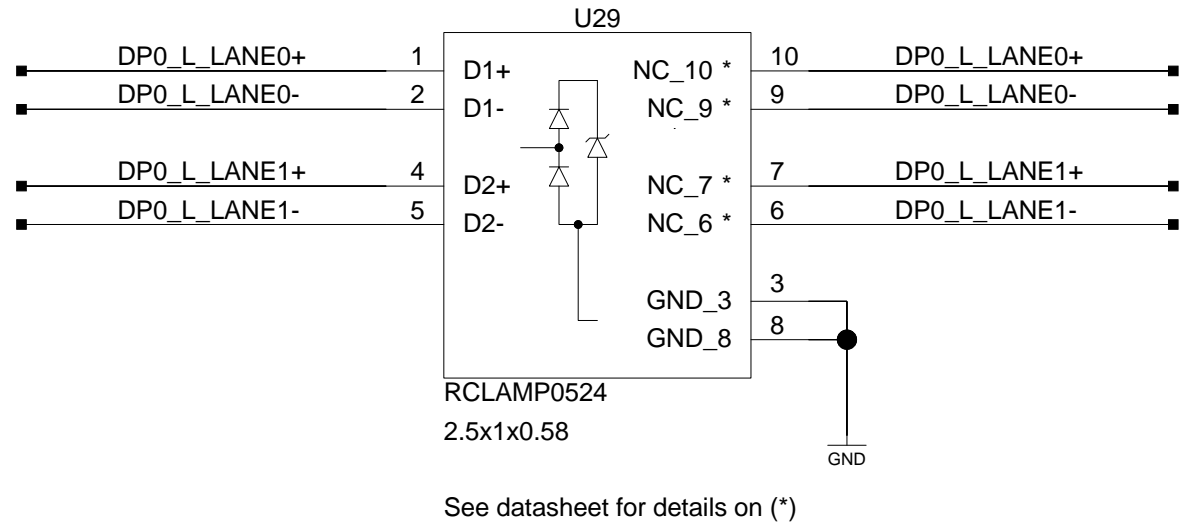
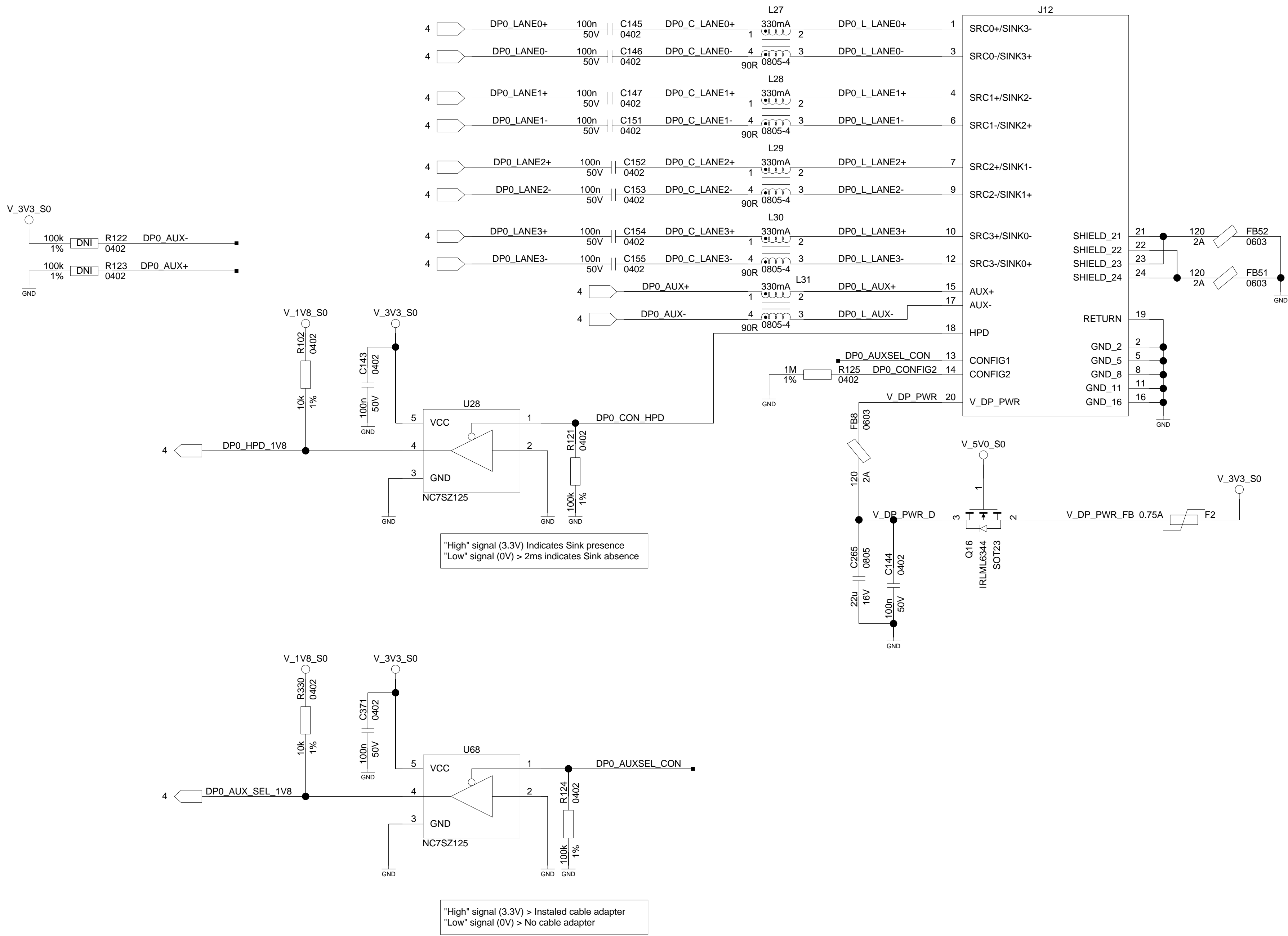
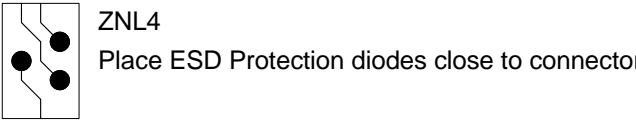


PROJECT	SMARC Eval 2.0 ADS2 - SMARC Eval 2.0				
BLOCK ID	Schematic1 ( 4 of 30 )			DIVISION	NAME
SHEET	04 SMARC con			DATE	YYYY-MM-DD
PCB ID	1062-0139	PCB INDEX	1400A	CREATED:	KEEDC JM, JH, MV 2017.11.17
LAST MODIFIED	20/11/2017:15:03	VERIFIED:	KEEDC MH 2017.11.20	APPROVED:	
PAGE	4 OF 30			DRAWING ID	REV
				SCH 1400	D00



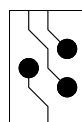
DP connector

ESD protection

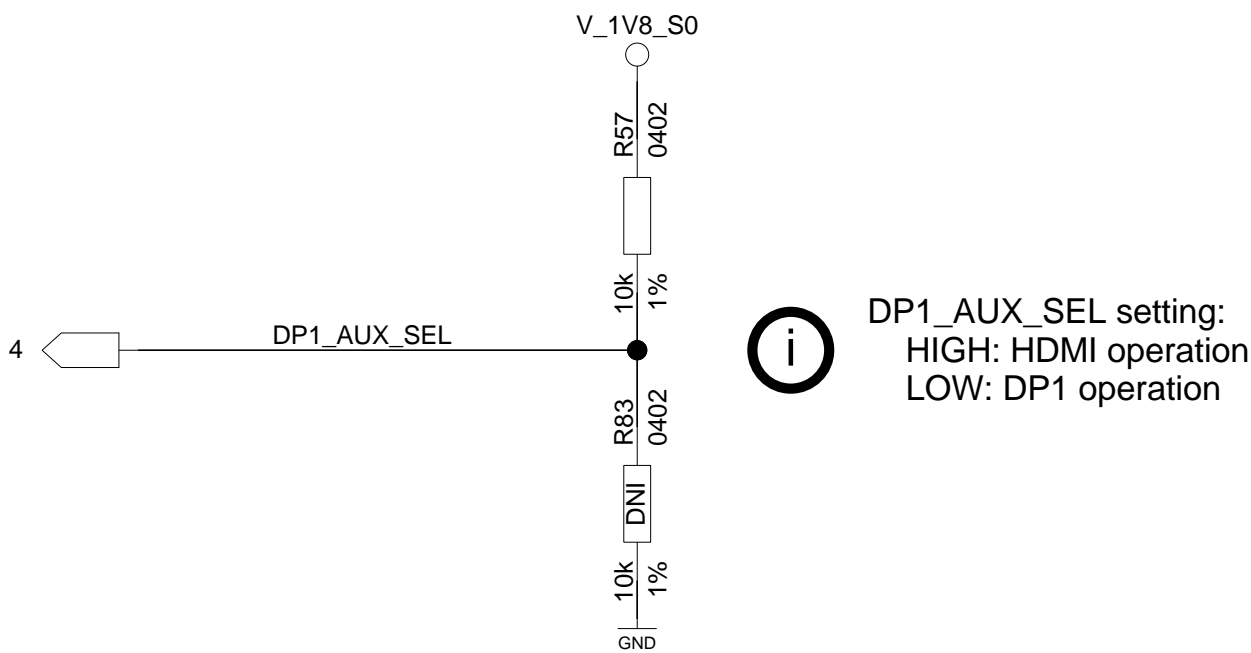
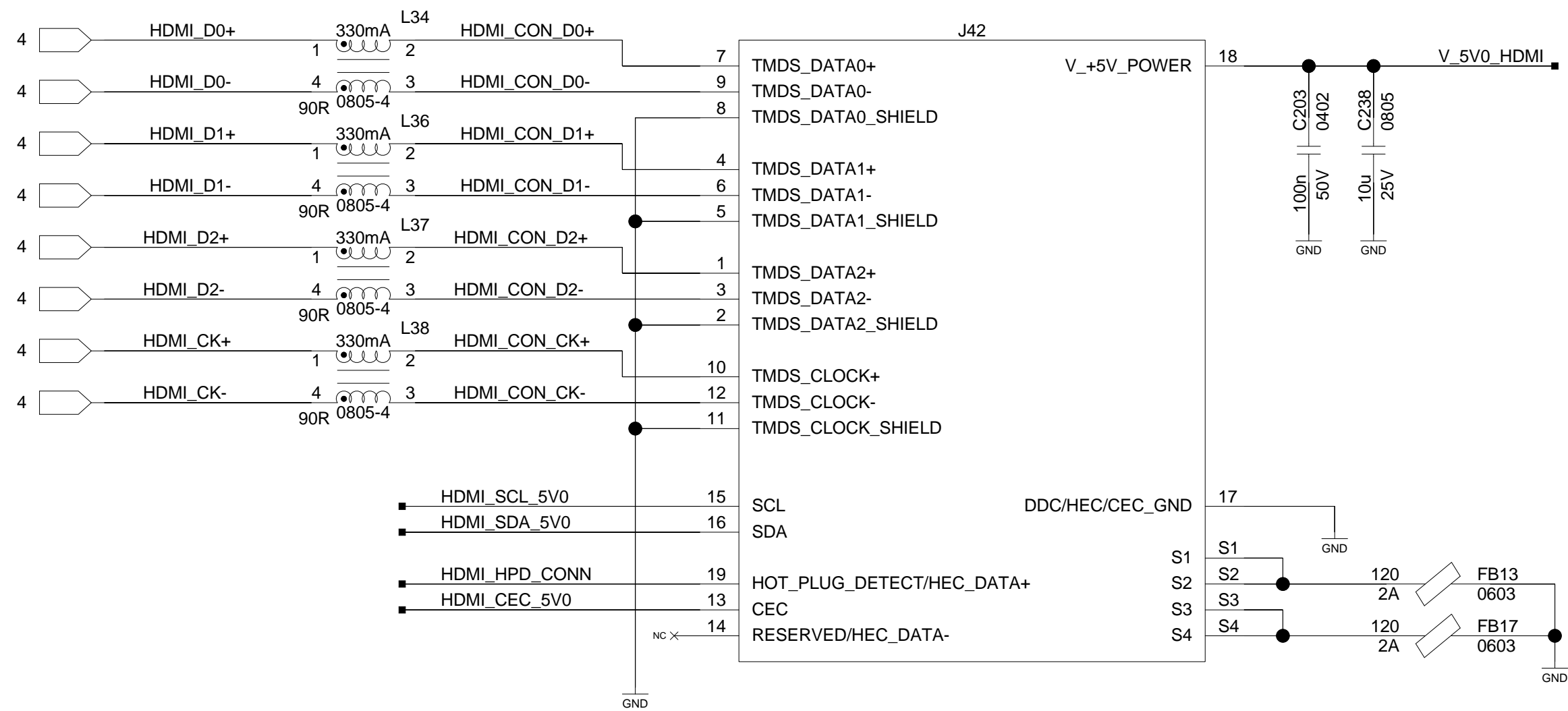
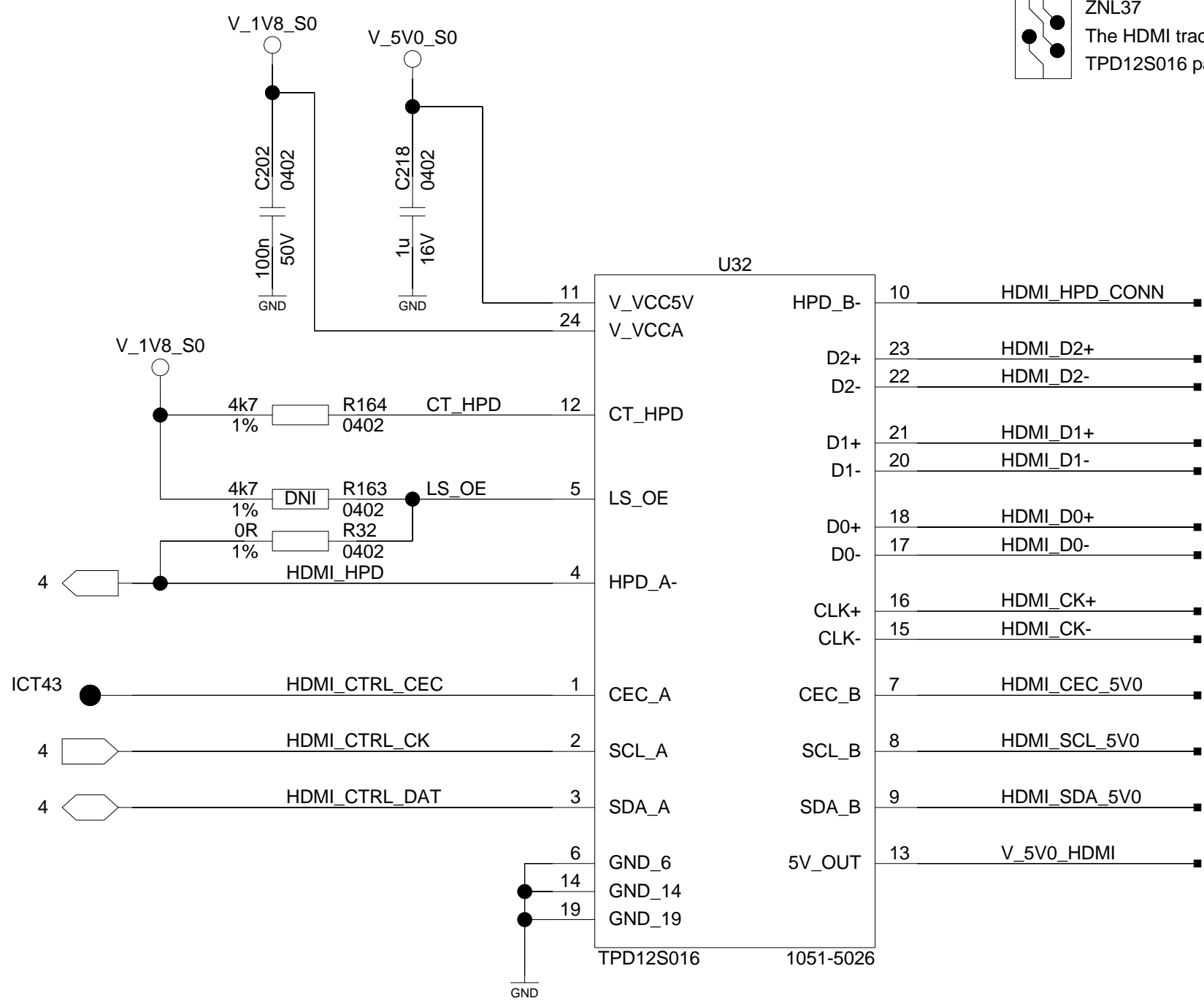


PROJECT SMARC Eval 2.0 ADS2 - SMARC Eval 2.0				
BLOCK ID Schematic1 ( 5 of 30 )	DIVISION KEEDC	NAME JM, JH ,MV	DATE YYYY-MM-DD 2017.11.17	
SHEET 05 DP con	VERIFIED: KEEDC	MH	2017.11.20	
PCB ID 1062-0139	PCB INDEX 1400A	LAST MODIFIED 20/11/2017:15:03	PAGE 5 OF 30	DRAWING ID SCH 1400
Created using CAD MGC VX 1.1		REV D00		

# HDMI Connector



ZNL37  
The HDMI trace pairs are to be routed from the SMARC connector, through the TPD12S016 pads and to the HDMI connector without any stubs

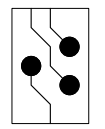


DP1\_AUX\_SEL setting:  
HIGH: HDMI operation  
LOW: DP1 operation

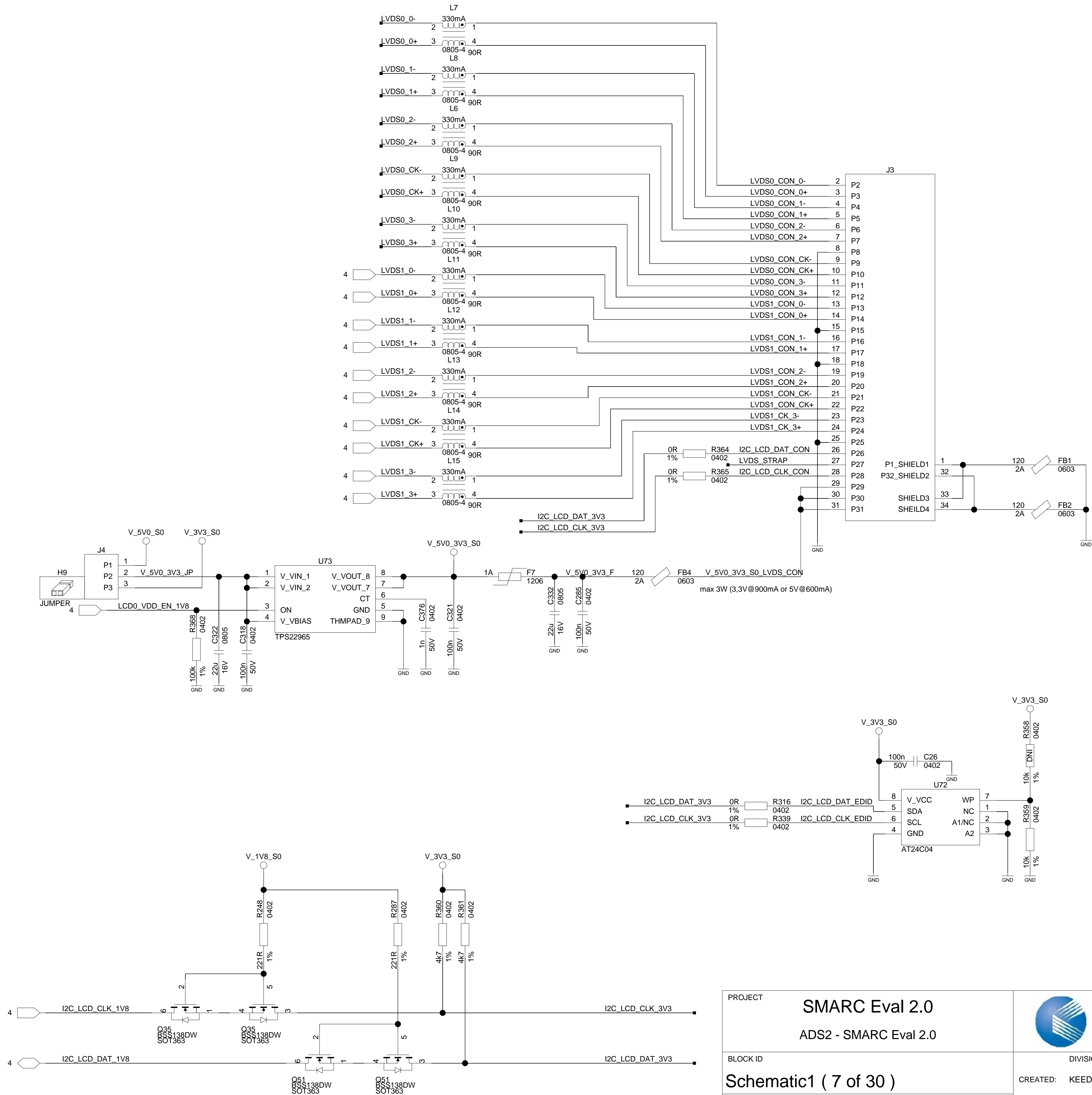
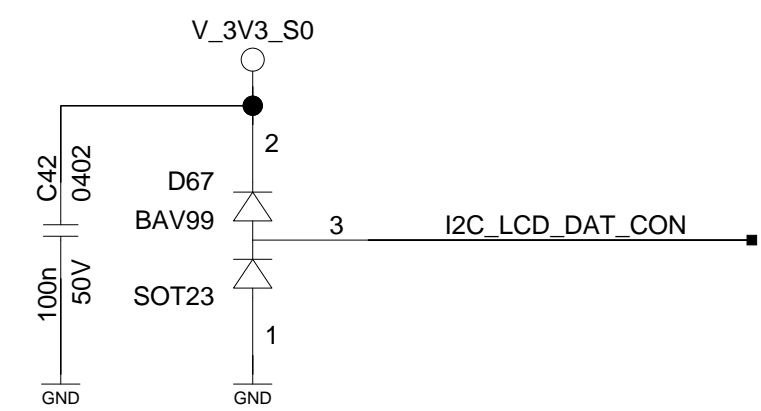
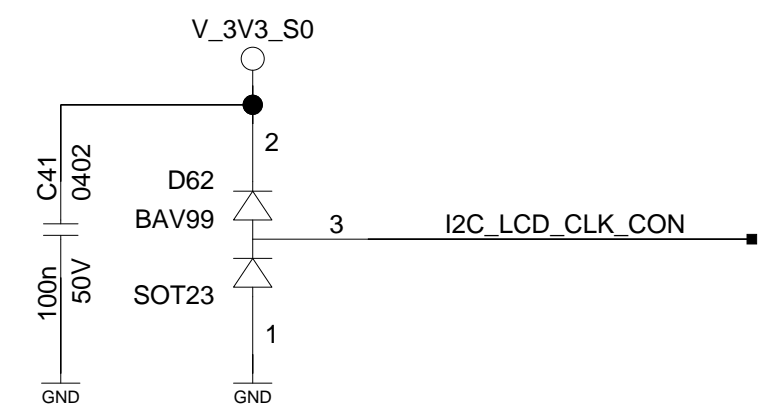
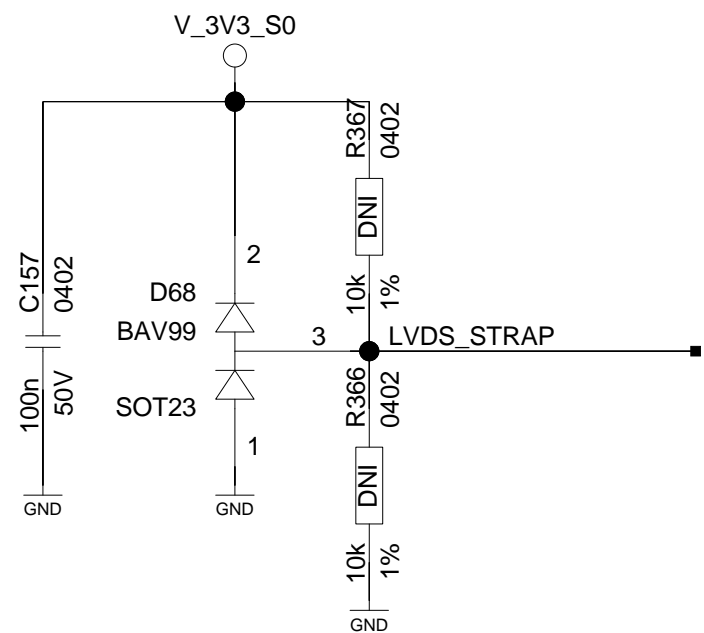
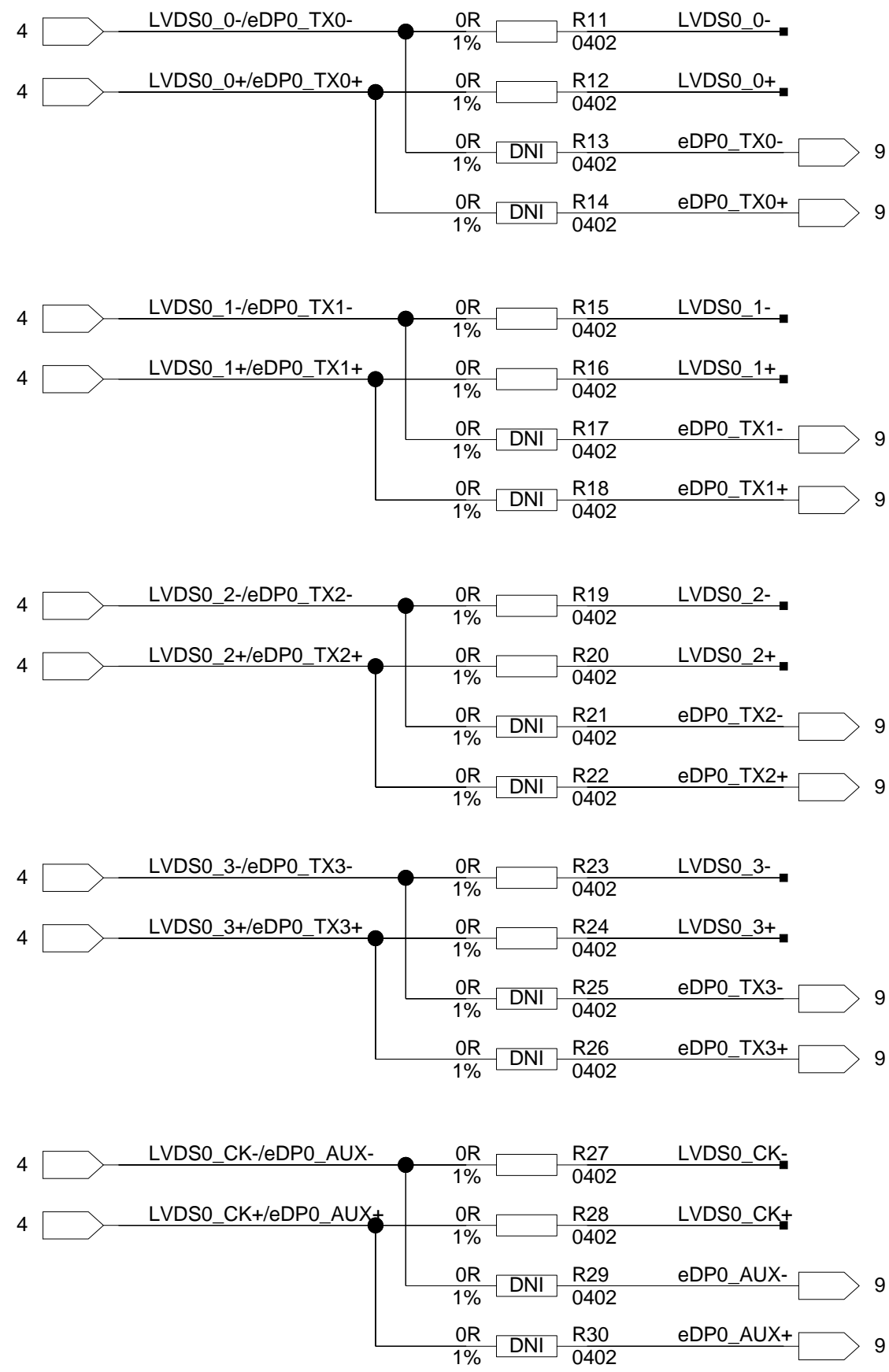
PROJECT SMARC Eval 2.0 ADS2 - SMARC Eval 2.0					
BLOCK ID Schematic1 ( 6 of 30 )			DIVISION KEEDC	NAME JM, JH ,MV	DATE YYYY-MM-DD 2017.11.17
SHEET 06 HDMI			VERIFIED: KEEDC	MH	2017.11.20
PCB ID 1062-0139			APPROVED:		
PCB INDEX 1400A	LAST MODIFIED 20/11/2017:15:03	PAGE 6 OF 30	DRAWING ID SCH 1400	REV D00	

# LVDS Data

## LVDS / eDP Option



ZNL2  
Place LVDS / eDP option resistors with shared common pad



PROJECT			<div>SMARC Eval 2.0</div> <div>ADS2 - SMARC Eval 2.0</div>			<div> <b>kontron</b></div>			
BLOCK ID			DIVISION			NAME		DATE YYYY-MM-DD	
Schematic1 ( 7 of 30 )			CREATED:			KEEDC		JM, JH ,MV 2017.11.17	
SHEET			VERIFIED:			KEEDC		MH 2017.11.20	
07 LVDS			APPROVED:						
PCB ID		PCB INDEX	LAST MODIFIED		PAGE		DRAWING ID		REV
1062-0139		1400A	22/11/2017:12:31		7 OF 30		SCH 1400		D00

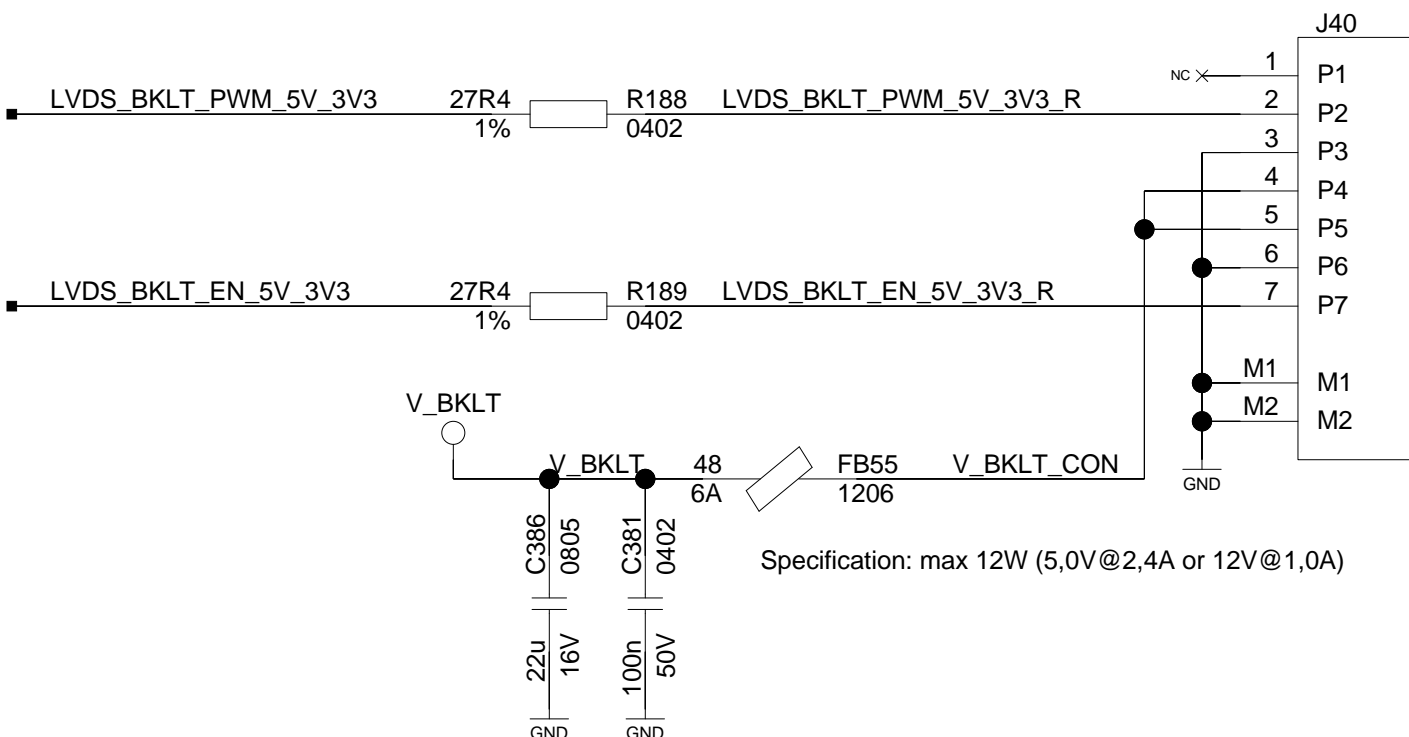
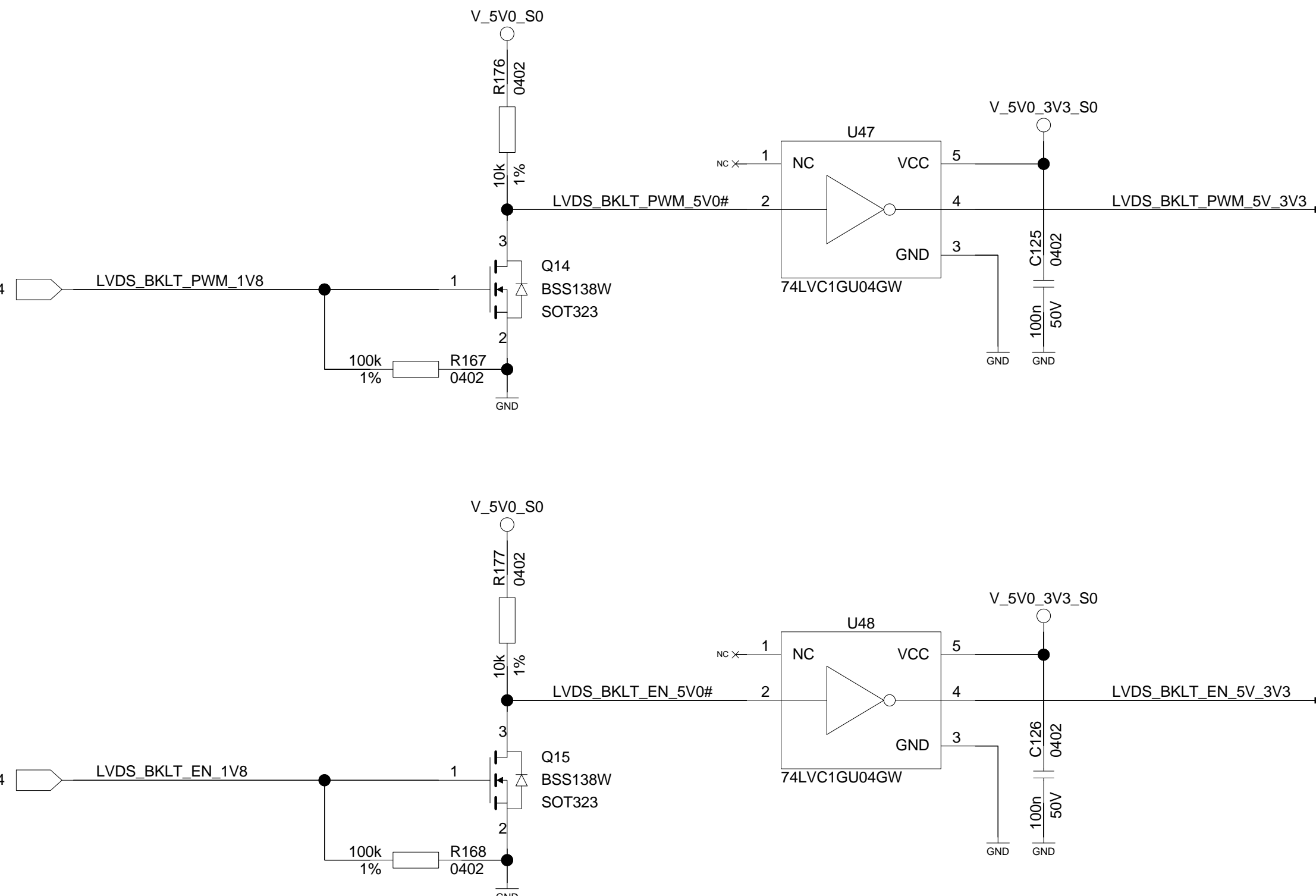
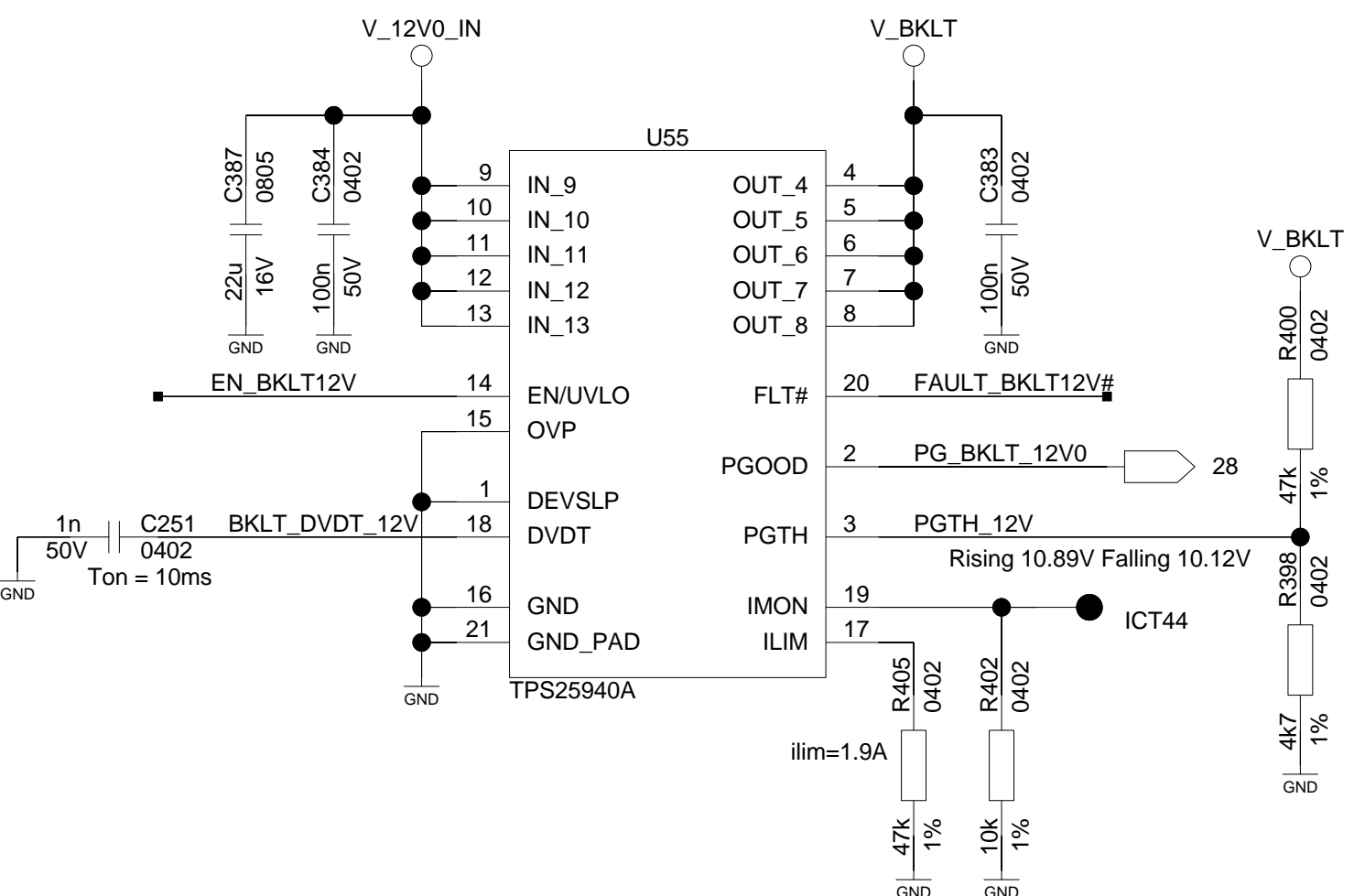
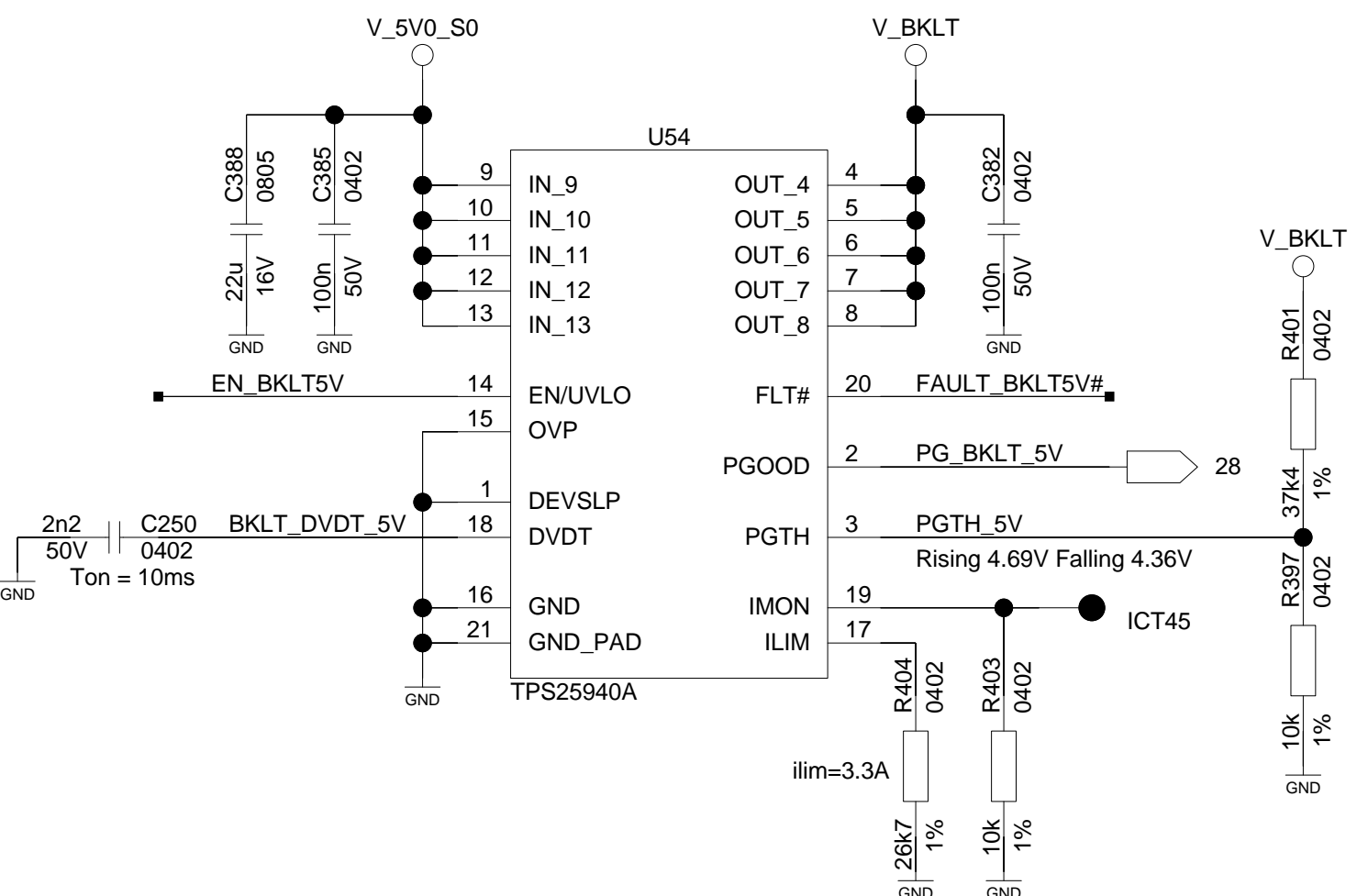
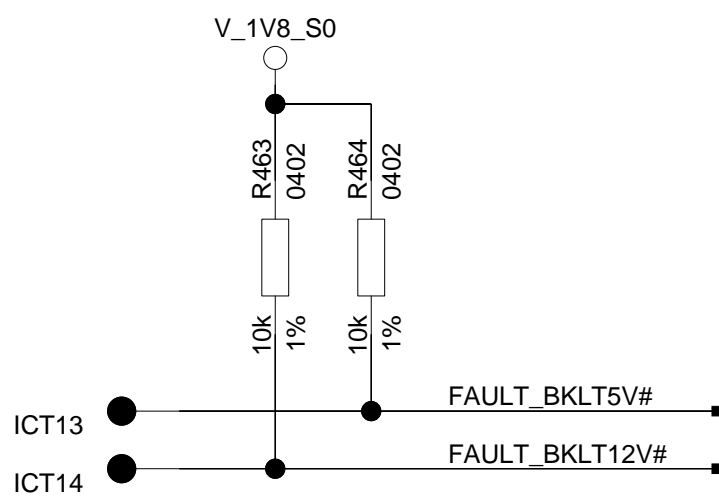
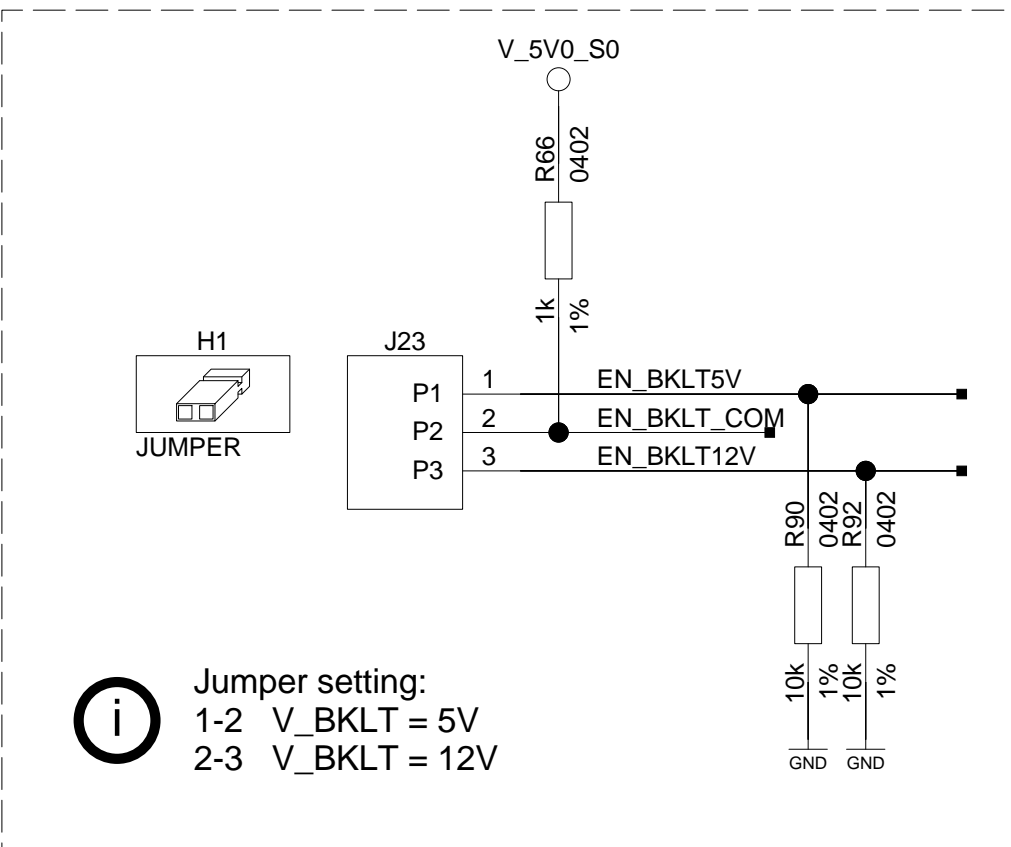
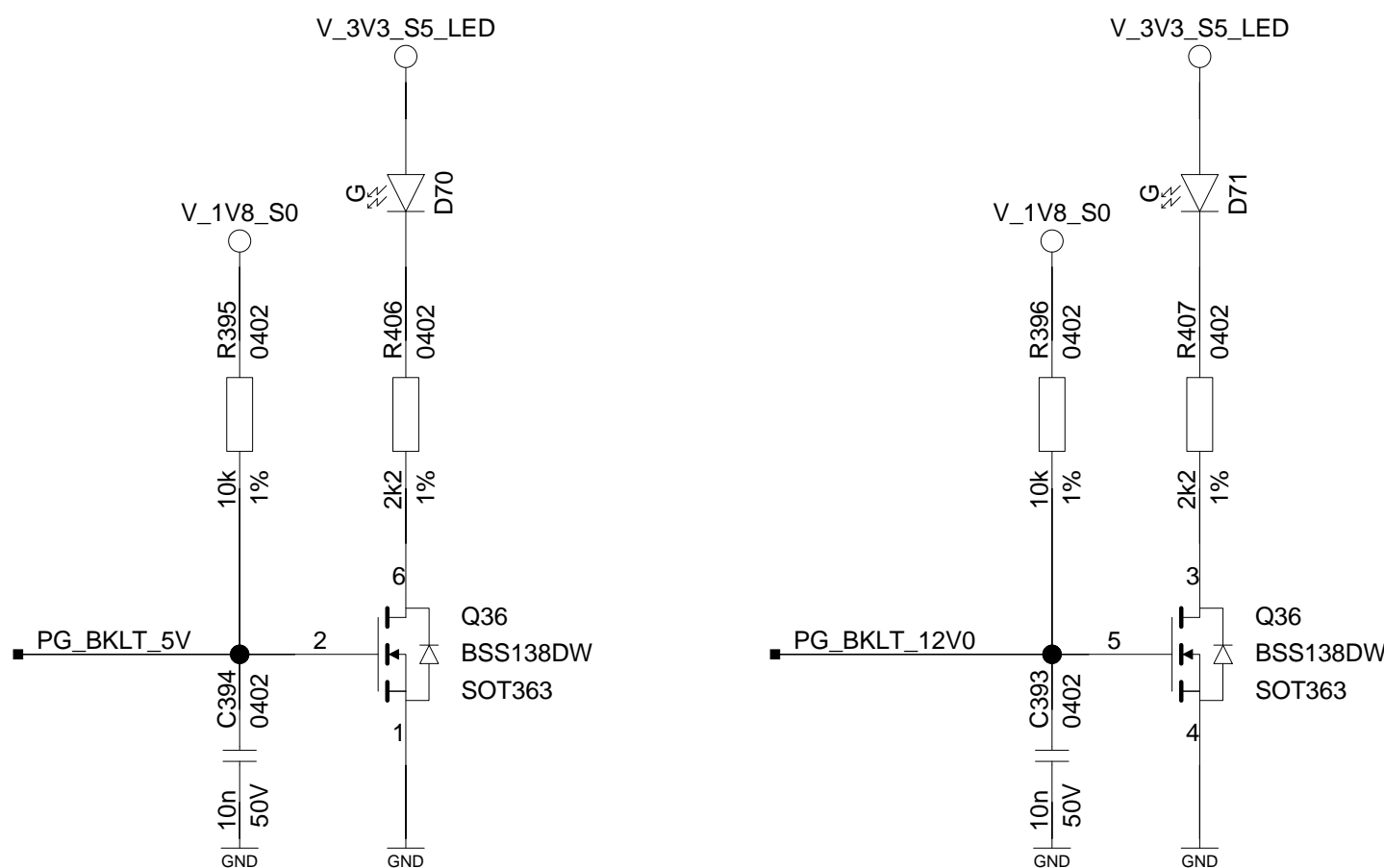
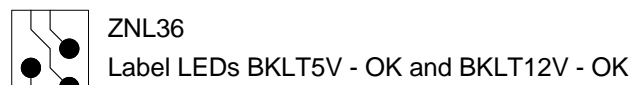
This drawing is proprietary to Kontron and may not be utilized in any means, electronic or mechanical including photocopying and retrieval system without express written permission of Kontron.

Schematics are for reference only.  
Refer to ERP BOM and assembly instruction for build values.

Created using CAD MGC VX 1.1



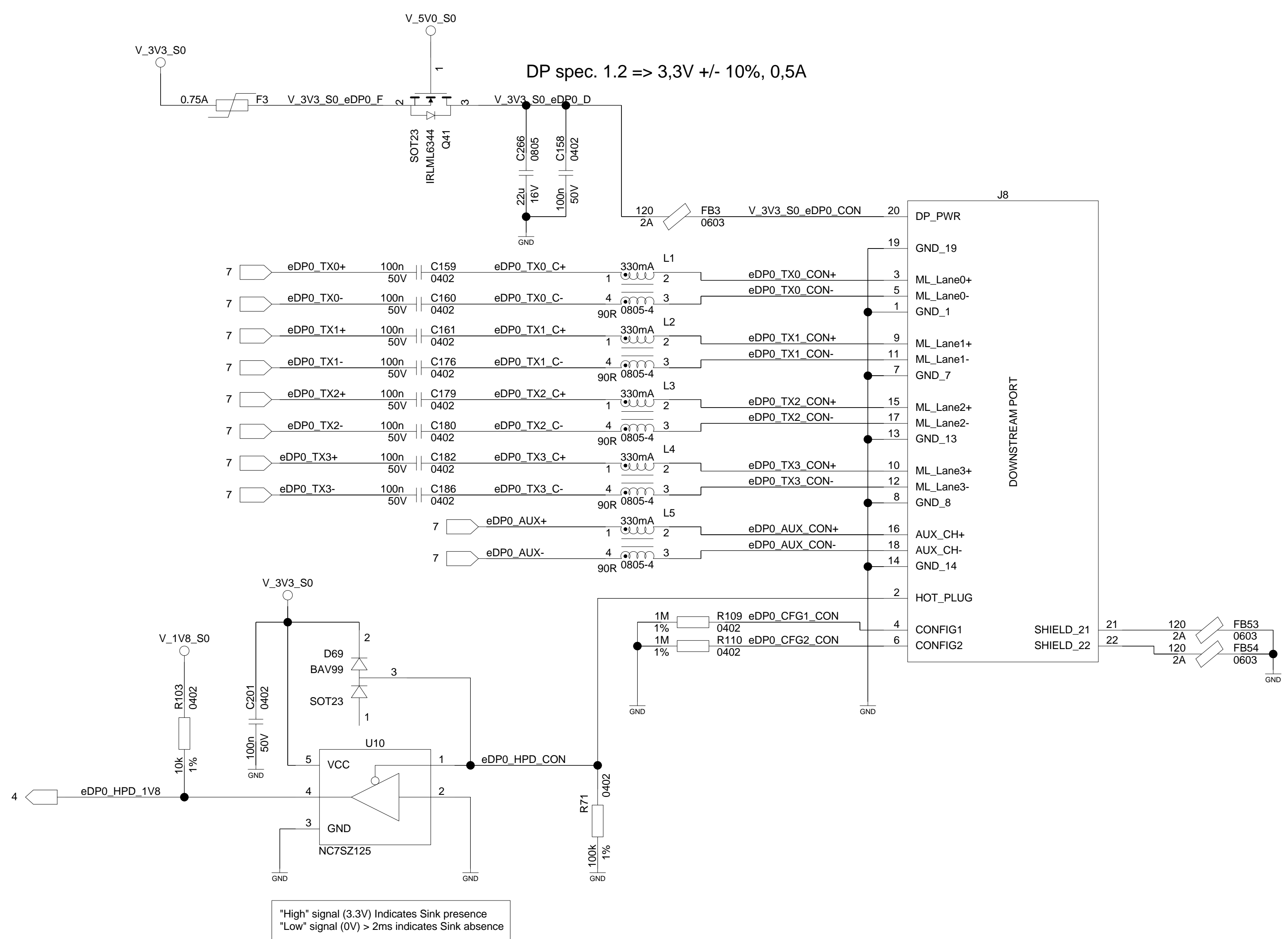
# LVDS Backlight



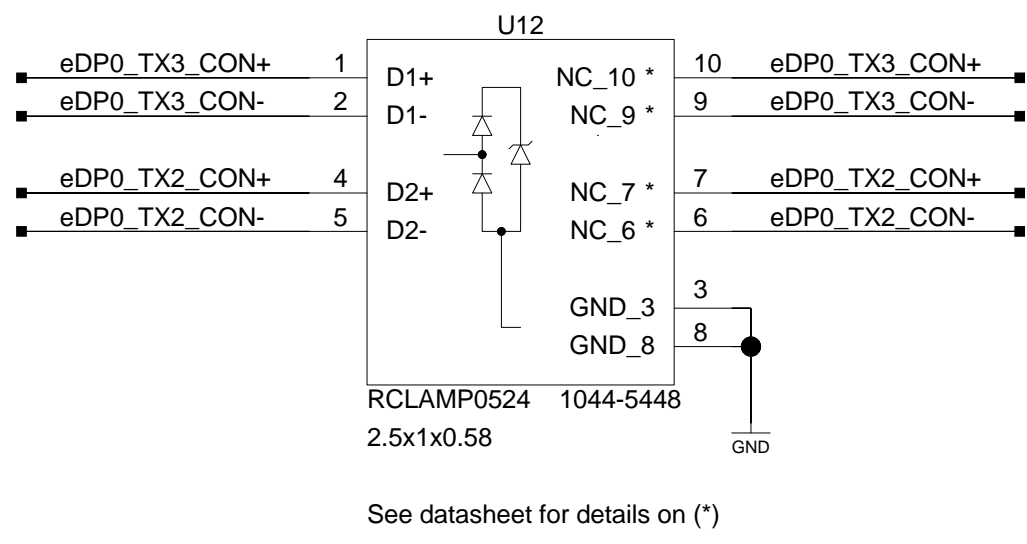
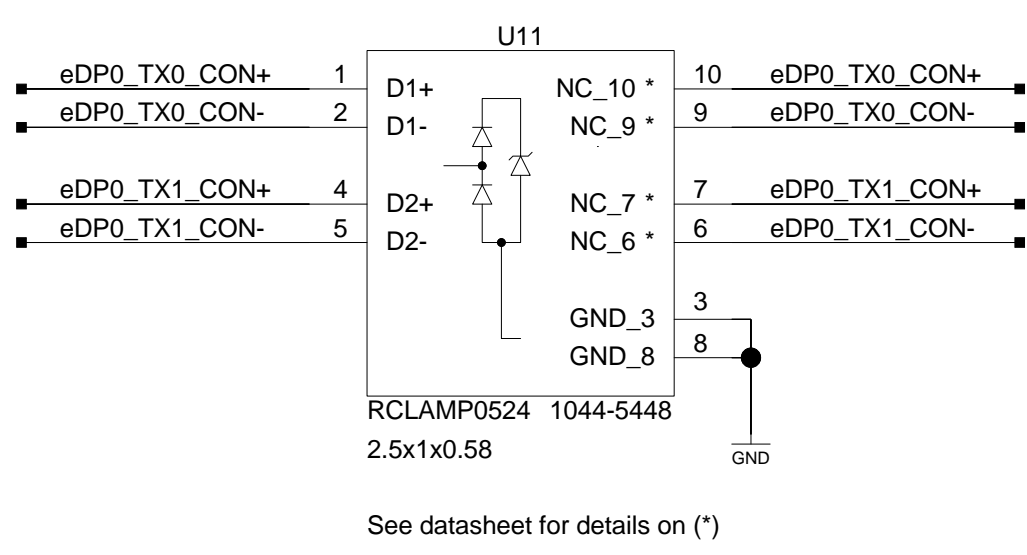
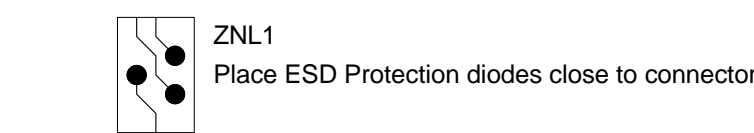
PROJECT			<div> <div>SMARC Eval 2.0</div> <div>ADS2 - SMARC Eval 2.0</div> </div>		
BLOCK ID			<div> <div>DIVISION</div> <div>NAME</div> <div>DATE YYYY-MM-DD</div> </div>		
Schematic1 ( 8 of 30 )			<div> <div>CREATED:</div> <div>KEEDC</div> <div>JM, JH ,MV</div> <div>2017.11.17</div> </div>		
SHEET			<div> <div>VERIFIED:</div> <div>KEEDC</div> <div>MH</div> <div>2017.11.20</div> </div>		
08 LVDS Backlight			<div> <div>APPROVED:</div> </div>		
PCB ID	PCB INDEX	LAST MODIFIED	PAGE	DRAWING ID	REV
1062-0139	1400A	20/11/2017:15:03	8 OF 30	SCH 1400	D00



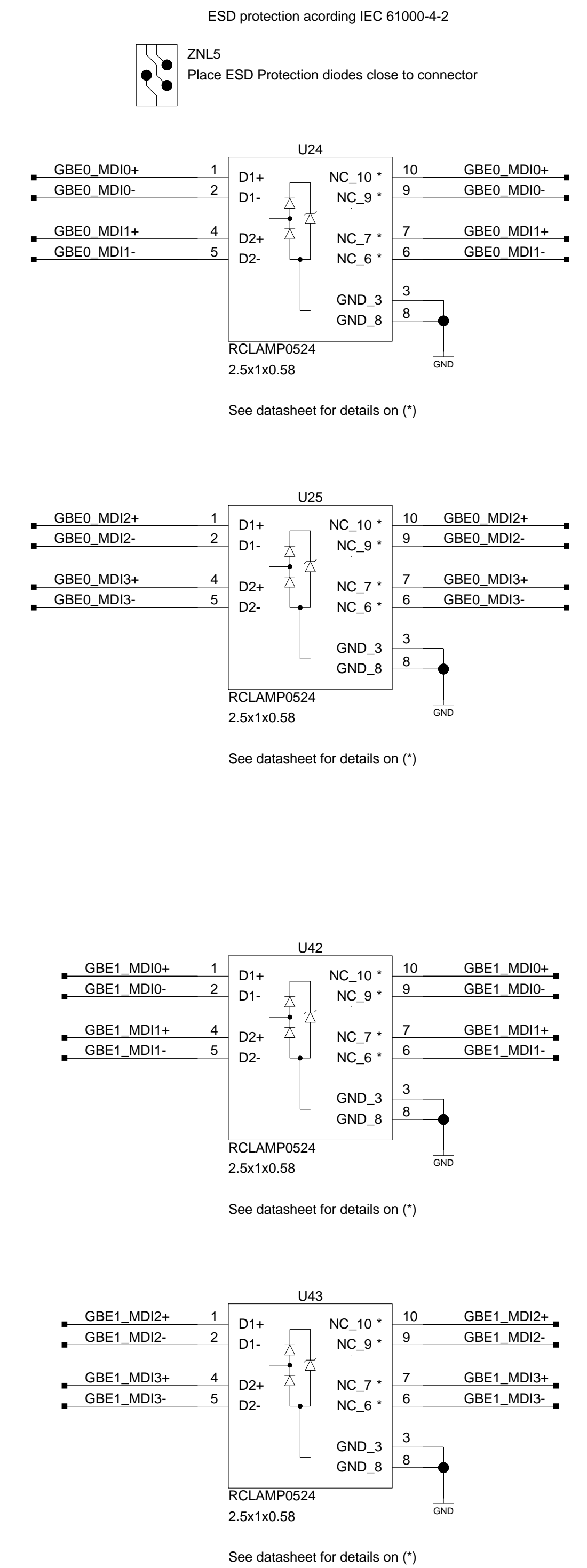
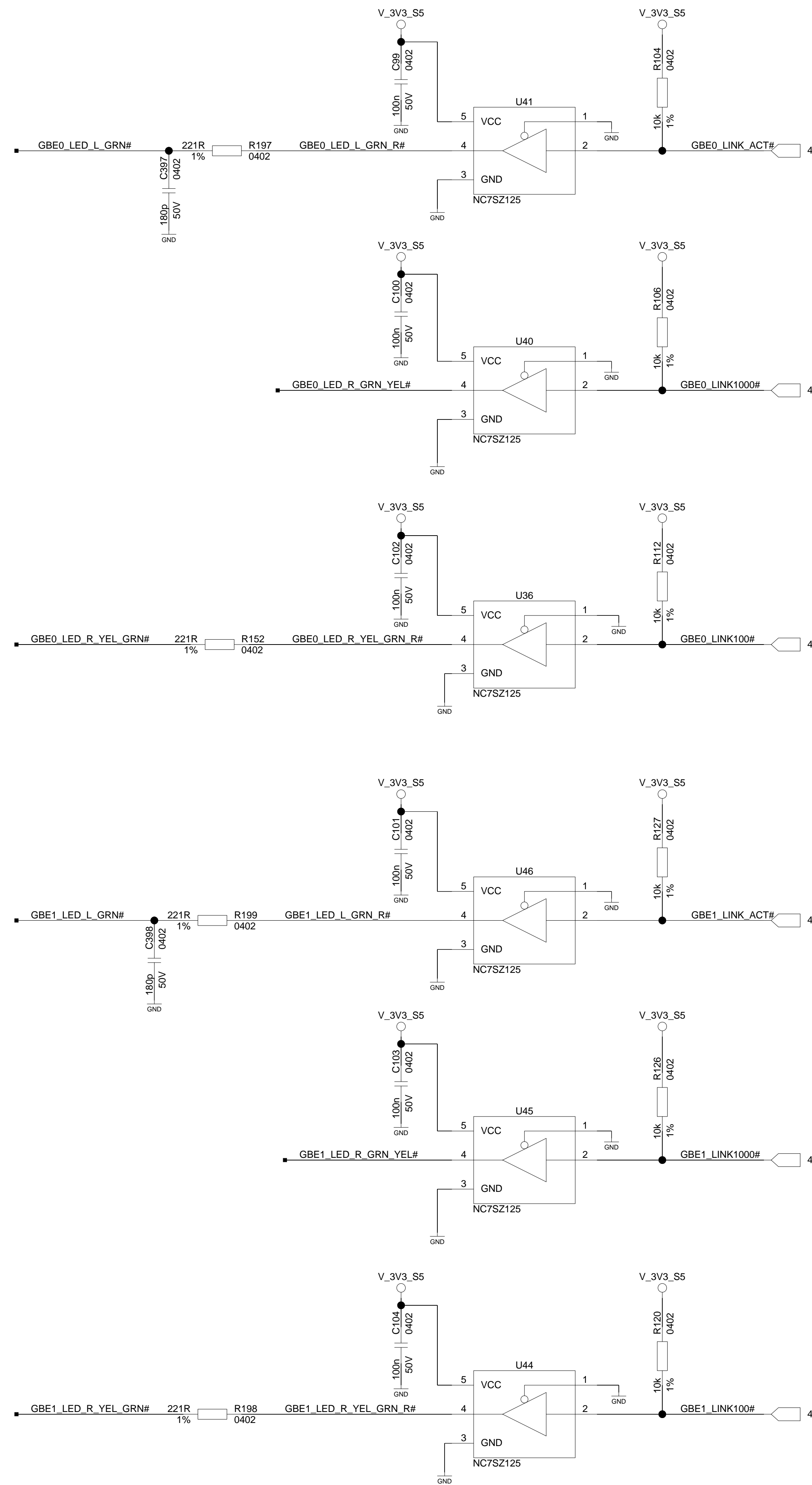
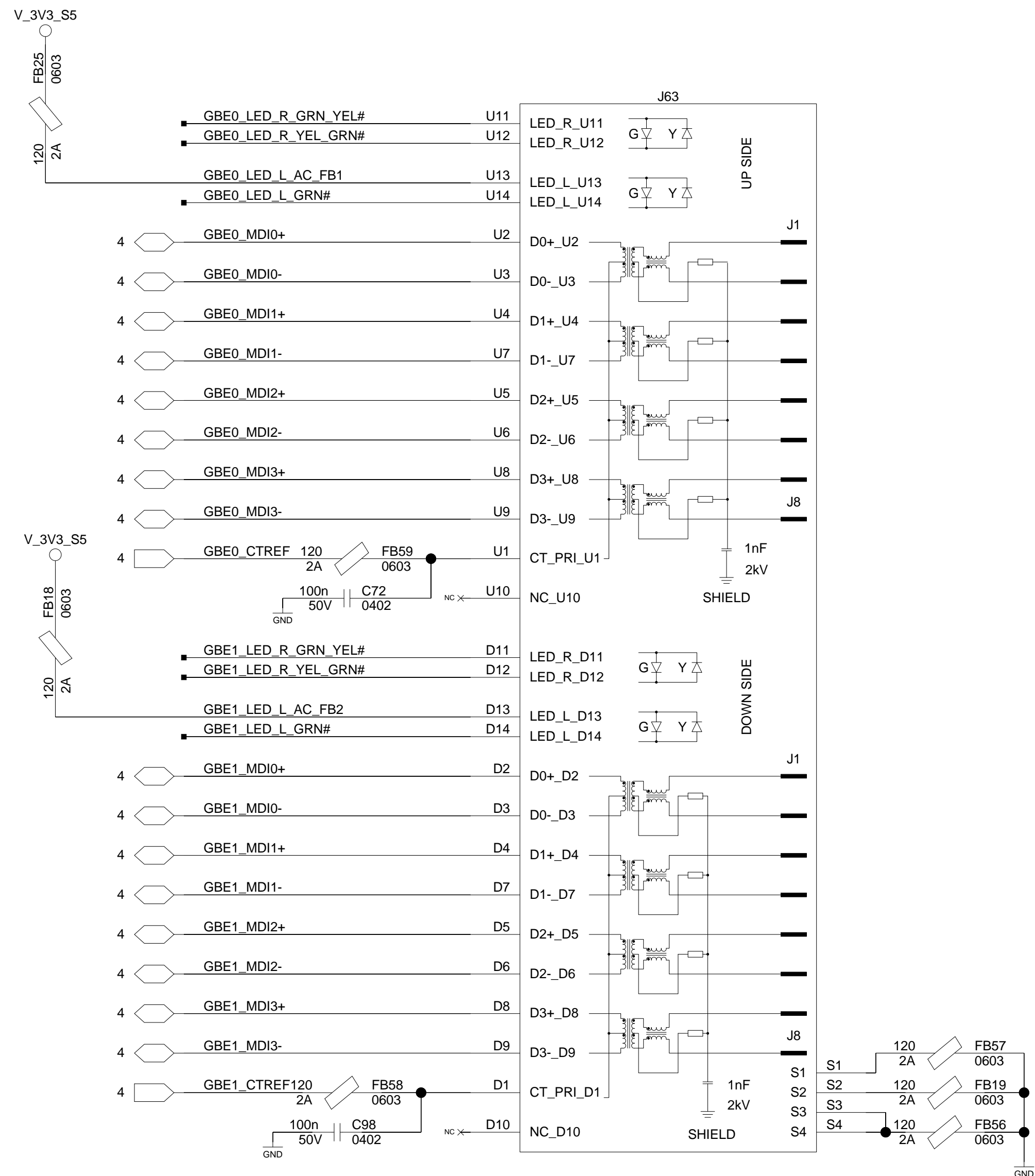
eDP connector



ESD protection



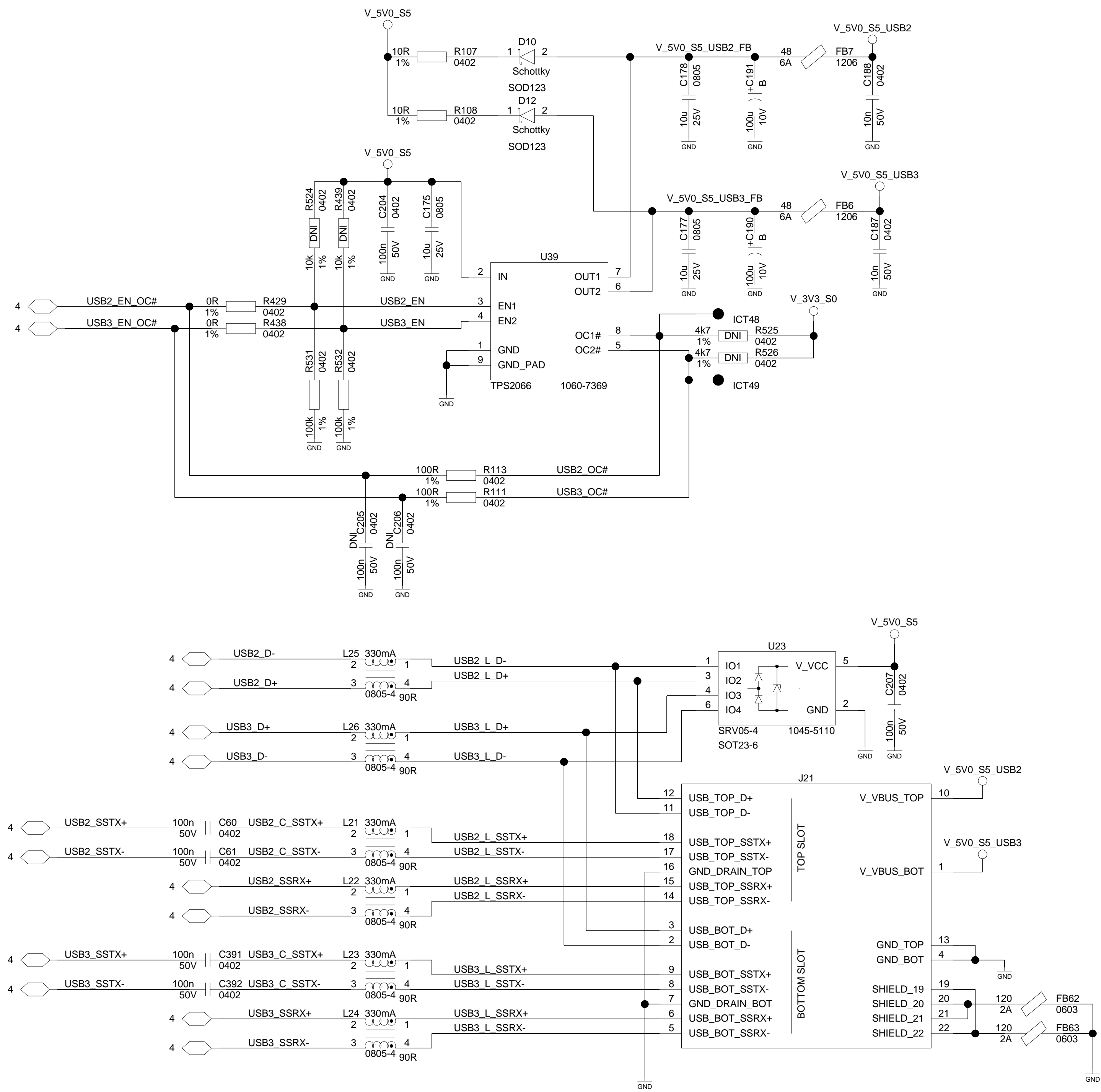
# Ethernet Connectors



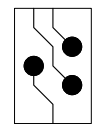
PROJECT			<div>SMARC Eval 2.0</div> <div>ADS2 - SMARC Eval 2.0</div>			<div> <b>kontron</b></div>			
BLOCK ID			DIVISION			NAME		DATE YYYY-MM-DD	
Schematic1 ( 10 of 30 )			CREATED:		KEEDC	JM, JH ,MV		2017.11.17	
			VERIFIED:		KEEDC	MH		2017.11.20	
			APPROVED:						
SHEET			PAGE			DRAWING ID		REV	
10 ETH 0-1			10 OF 30			SCH 1400		D00	
PCB ID		PCB INDEX		LAST MODIFIED					
1062-0139		1400A		20/11/2017:15:03					



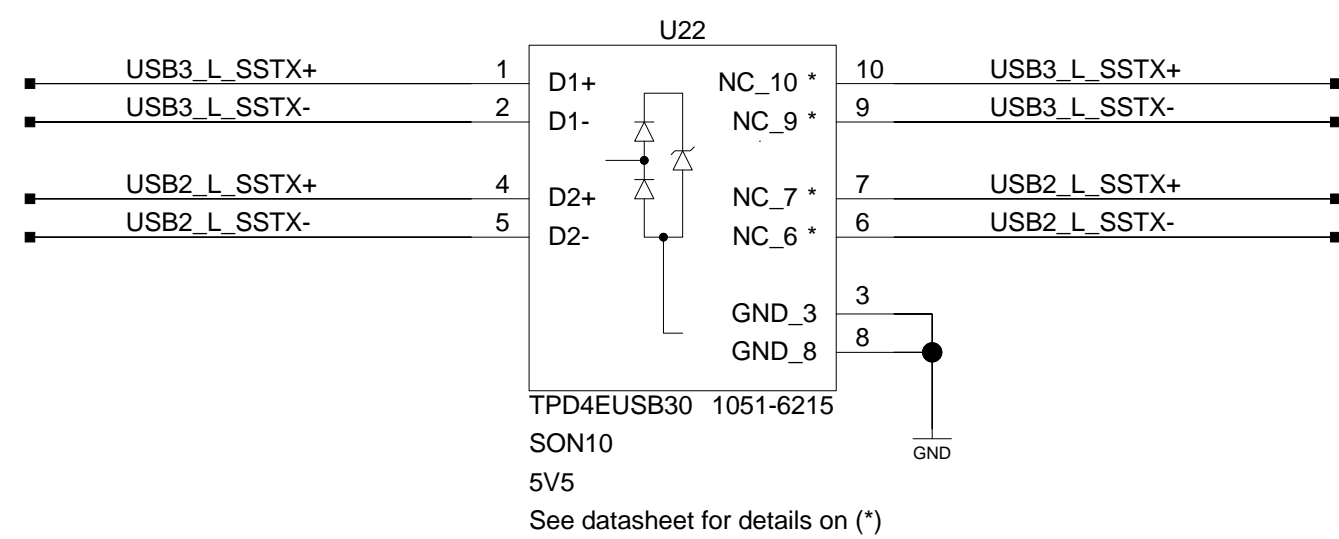
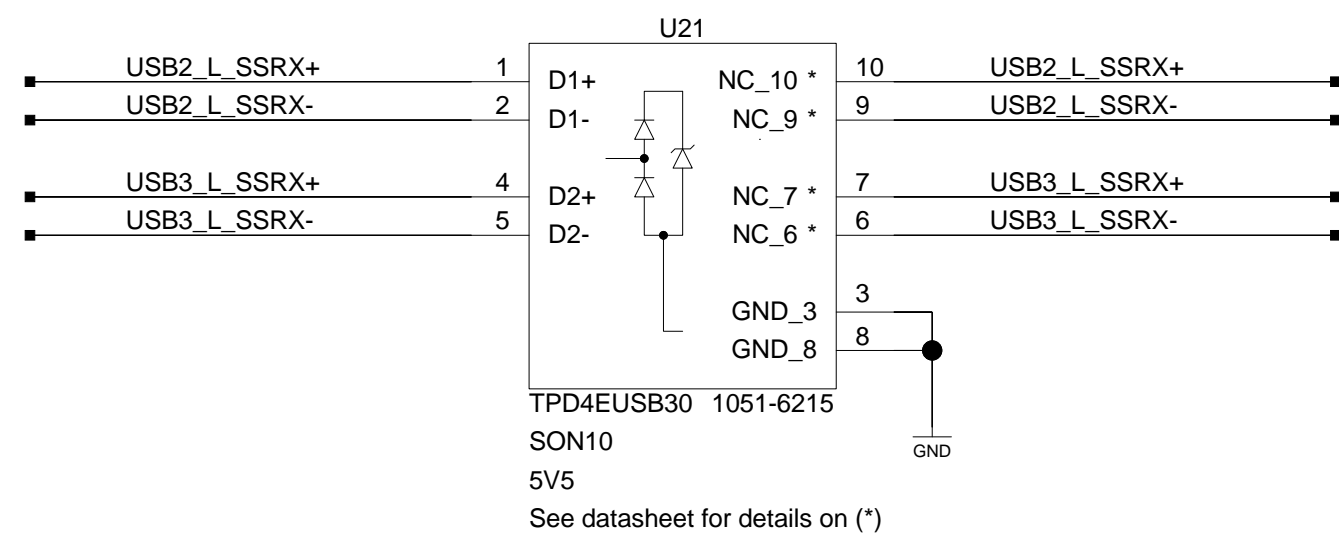
# USB 3.0 Connectors



## ESD protection

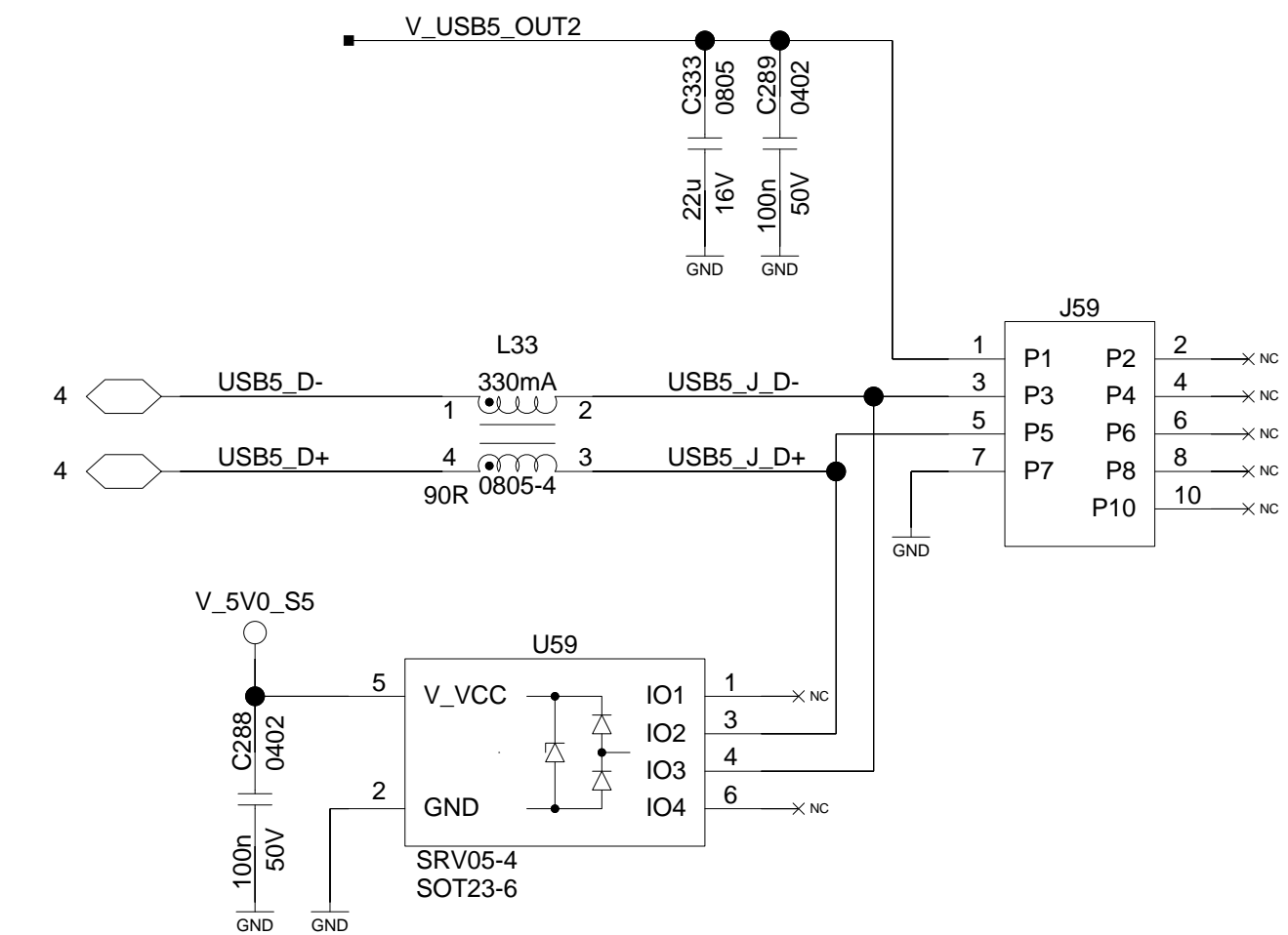


Place ESD Protection diodes close to connector



PROJECT			SMARC Eval 2.0			 <b>kontron</b>		
			ADS2 - SMARC Eval 2.0					
BLOCK ID						DIVISION	NAME	DATE YYYY-MM-DD
Schematic1 ( 11 of 30 )						CREATED: KEEDC	JM, JH ,MV	2017.11.17
SHEET						VERIFIED: KEEDC	MH	2017.11.20
11 USB 30						APPROVED:		
PCB ID		PCB INDEX		LAST MODIFIED		PAGE	DRAWING ID	REV
1062-0139		1400A		20/11/2017:15:03		11 OF 30	SCH 1400	D00

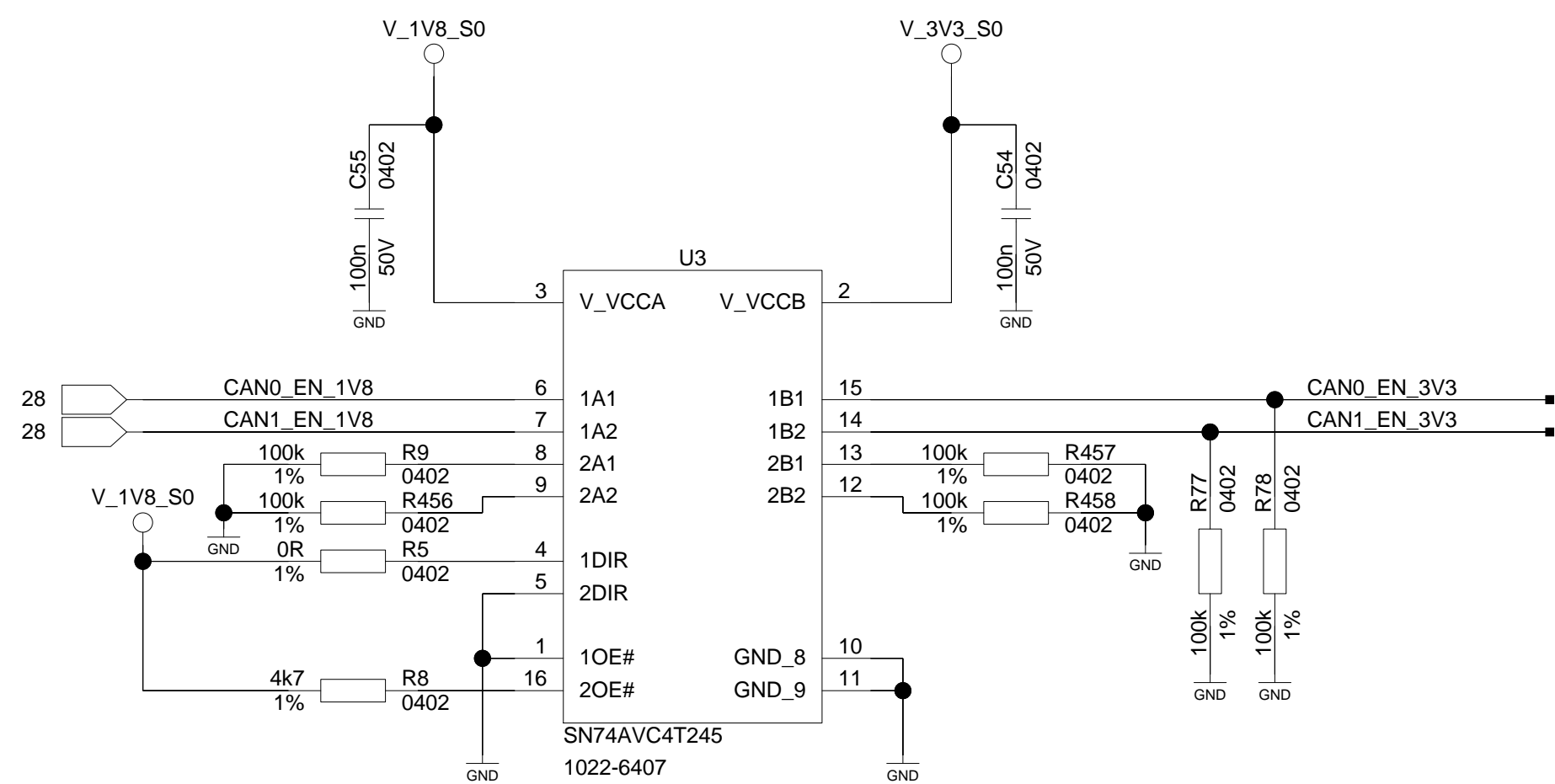
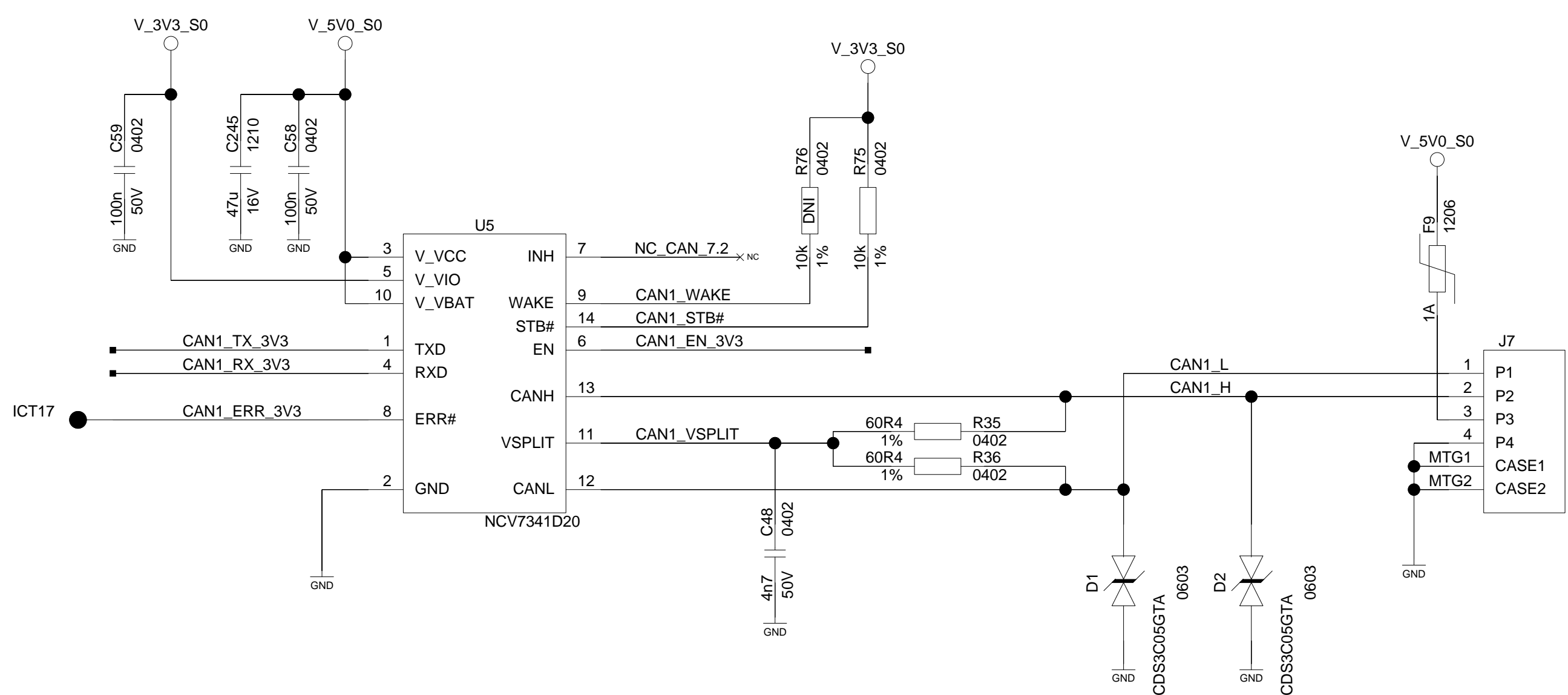
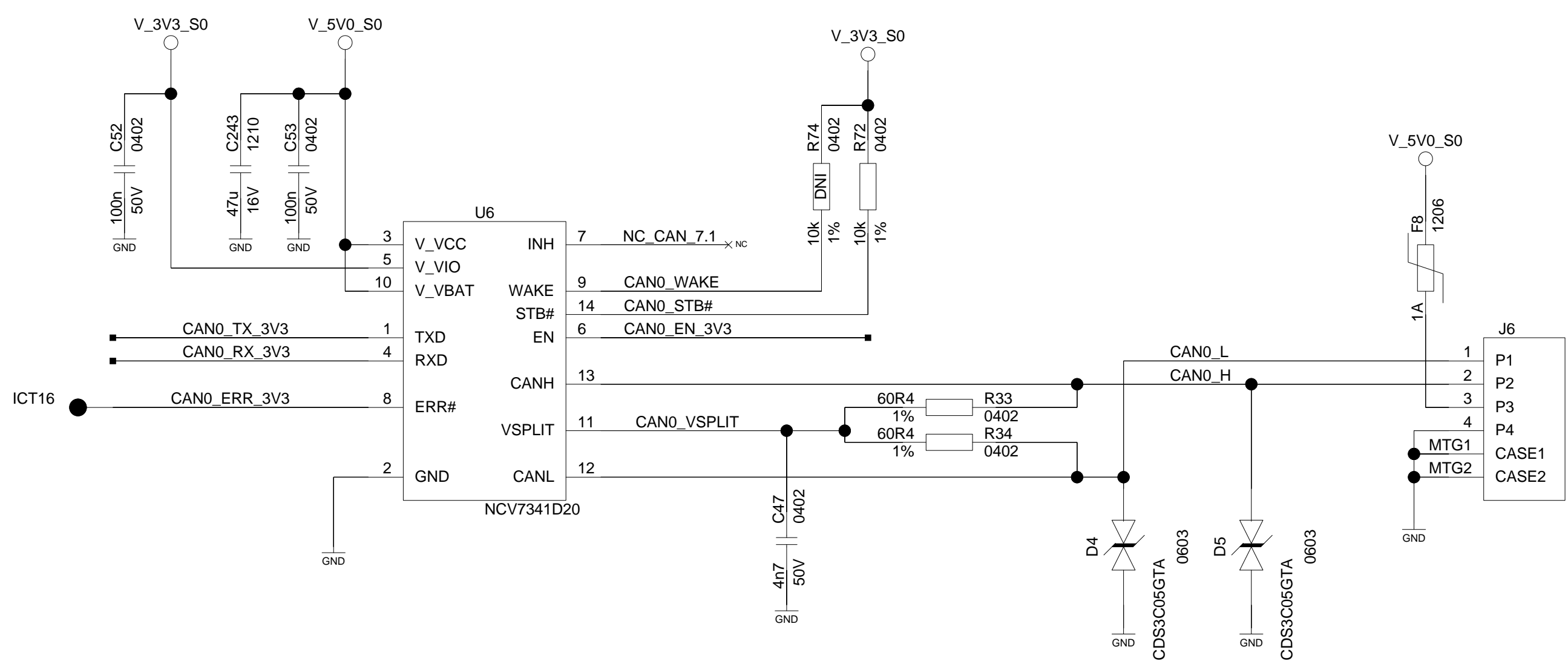
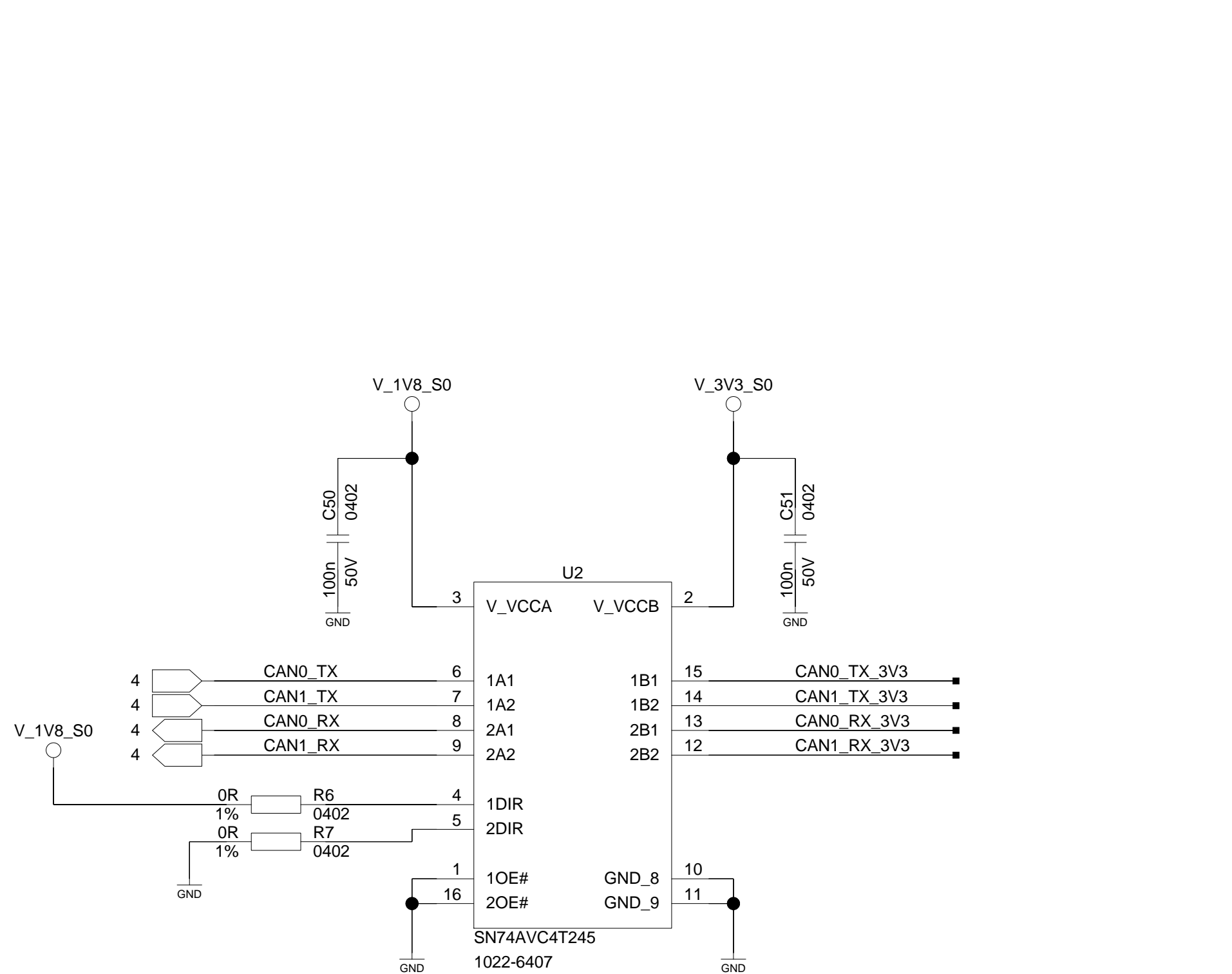
# USB 2.0 Header



Created using CAD MGC VX 1.1

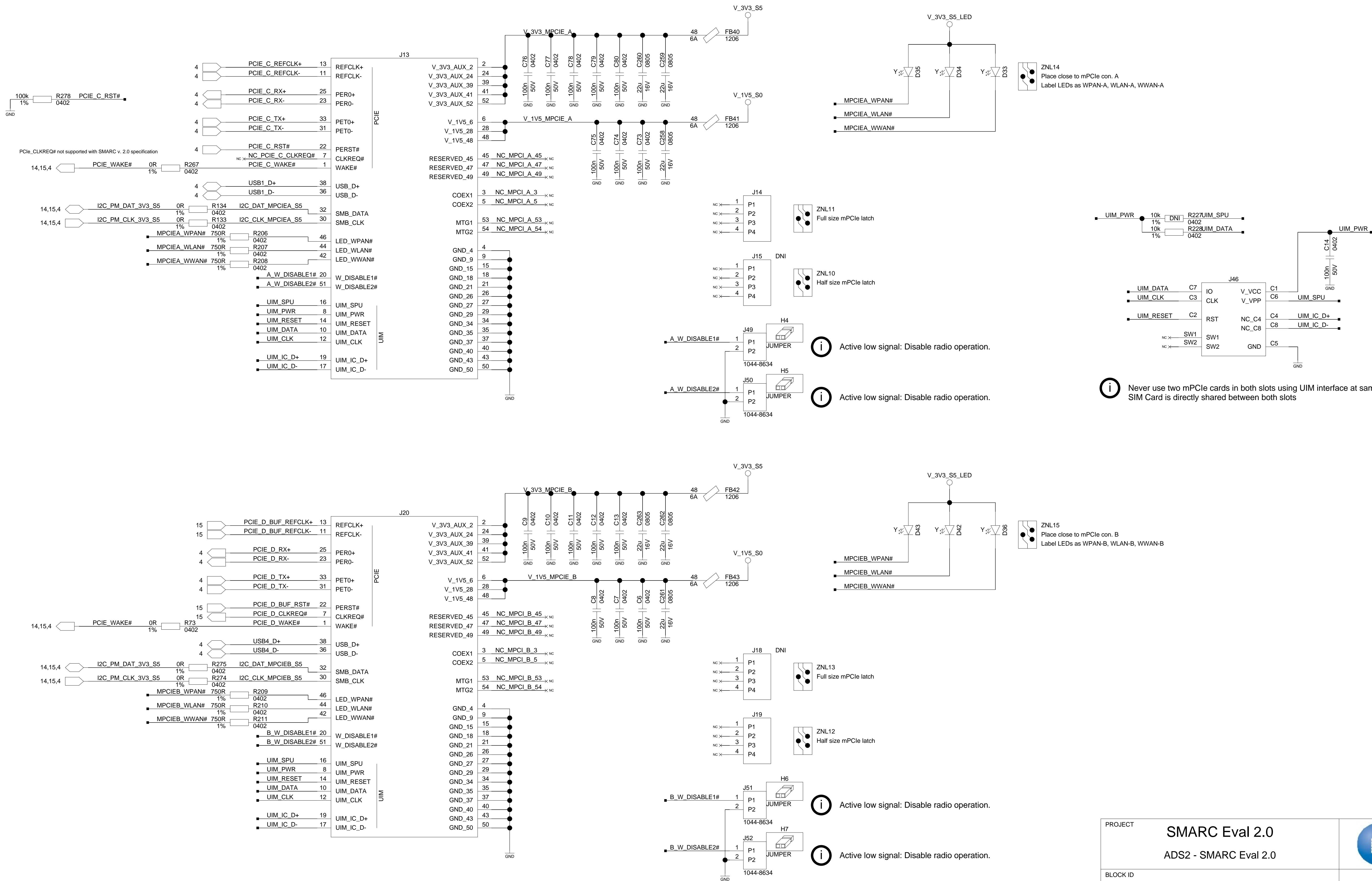


# CAN Transceivers



PROJECT			SMARC Eval 2.0			 <b>kontron</b>		
			ADS2 - SMARC Eval 2.0					
BLOCK ID						DIVISION	NAME	DATE YYYY-MM-DD
Schematic1 ( 13 of 30 )						CREATED:	KEEDC JM, JH, MV	2017.11.17
SHEET						VERIFIED:	KEEDC MH	2017.11.20
13 CAN con						APPROVED:		
PCB ID		PCB INDEX	LAST MODIFIED			PAGE	DRAWING ID	REV
1062-0139		1400A	20/11/2017:15:03			13 OF 30	SCH 1400	D00

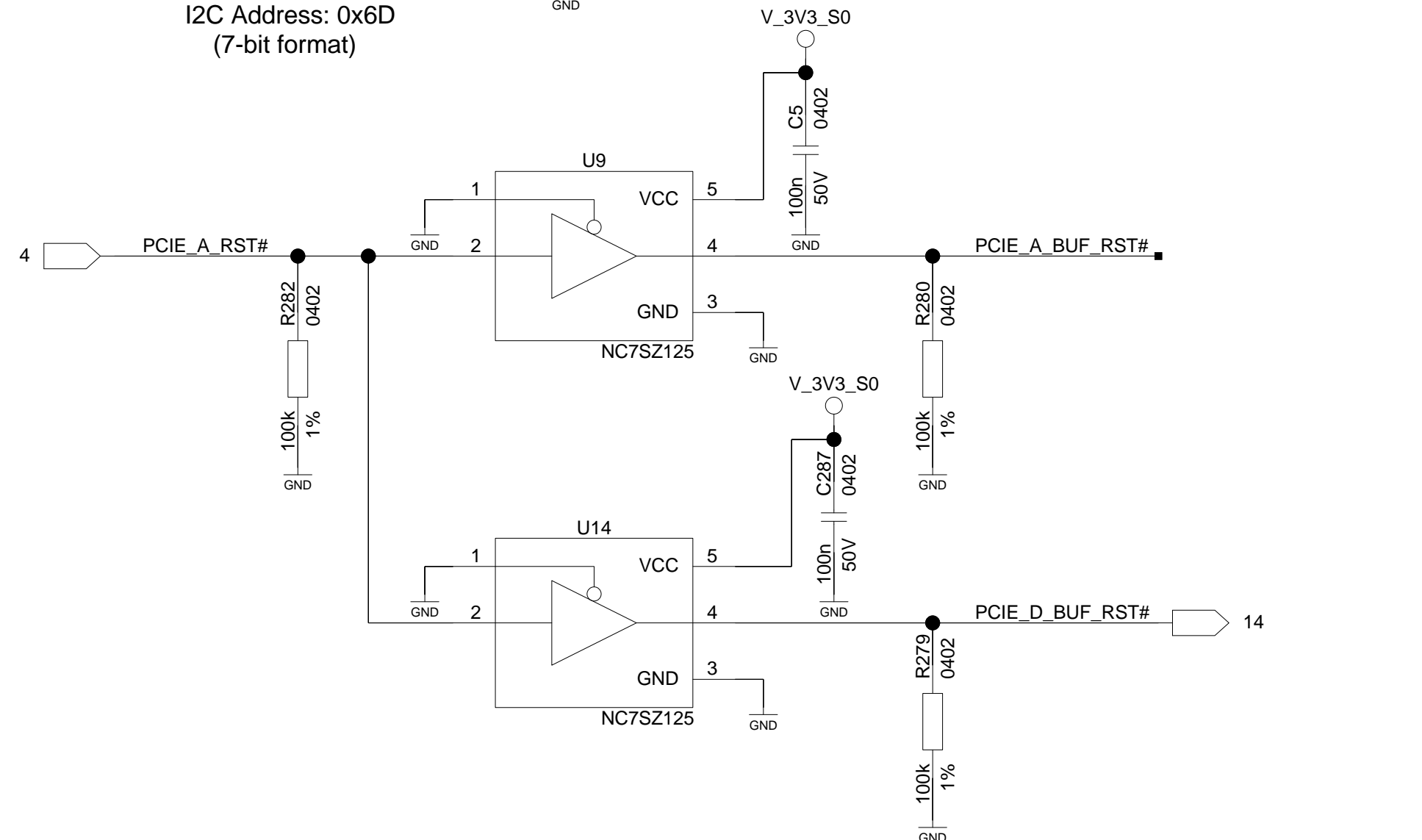
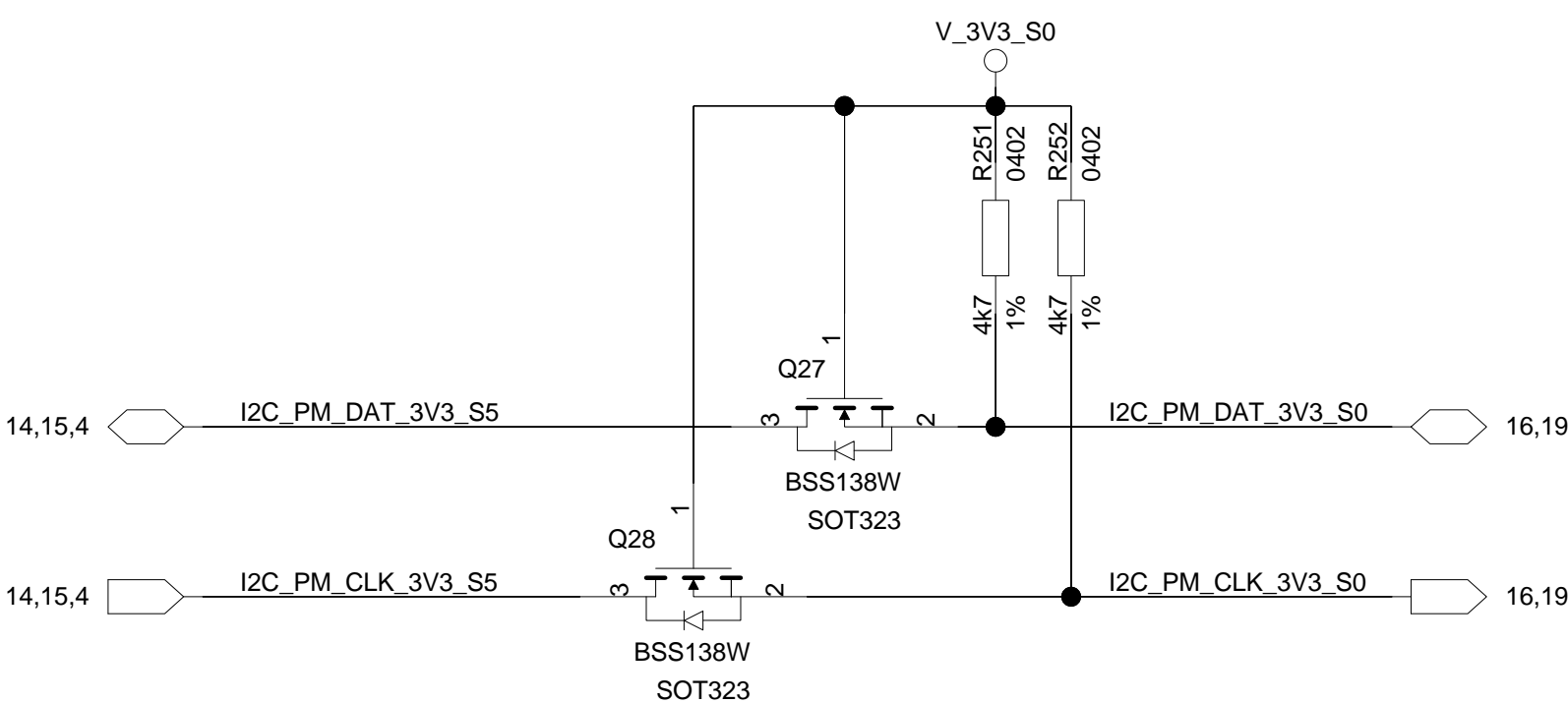
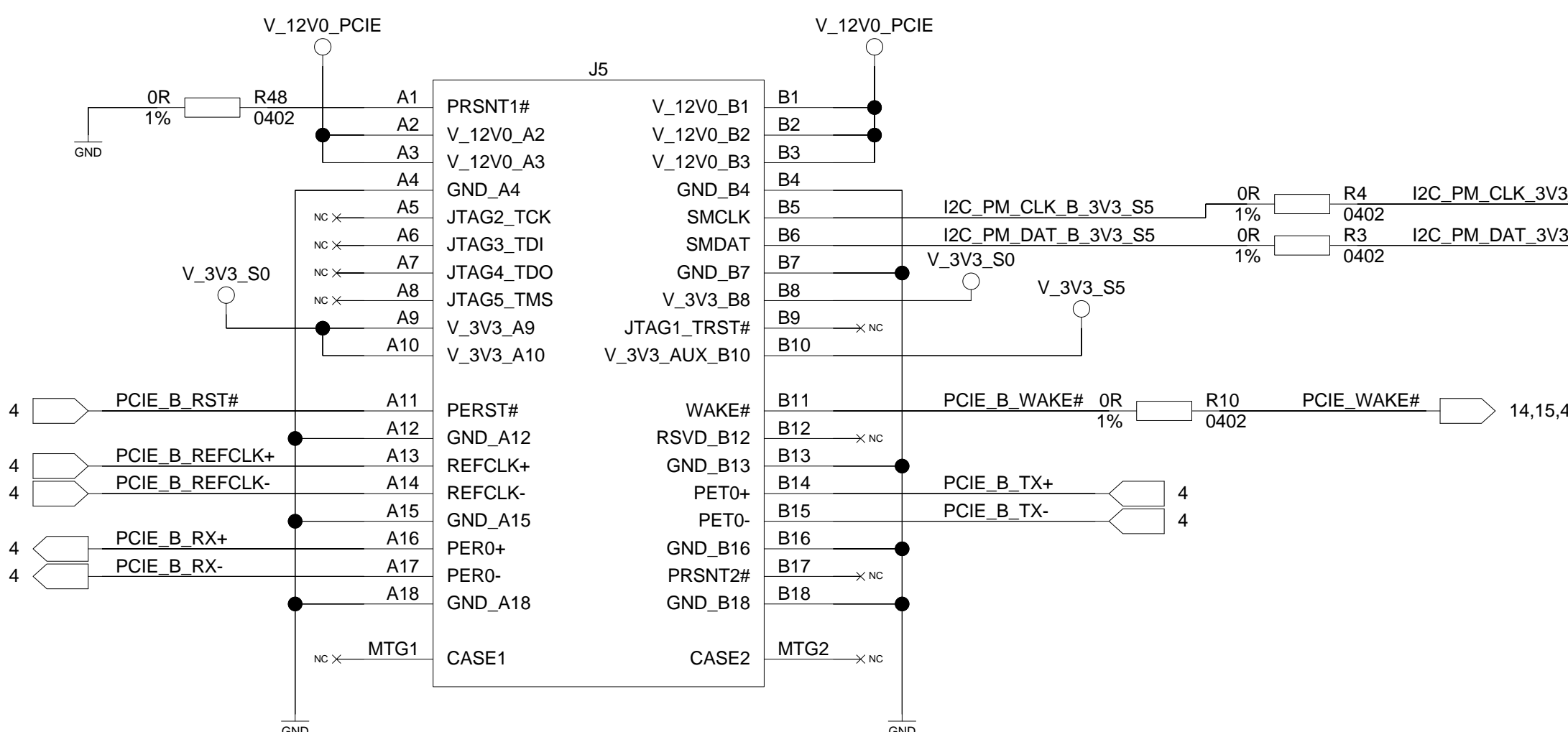
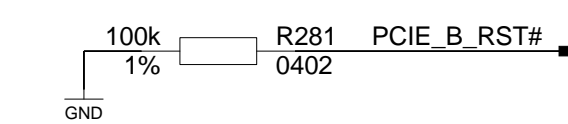
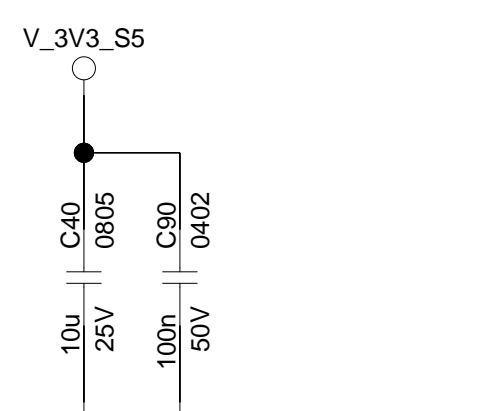
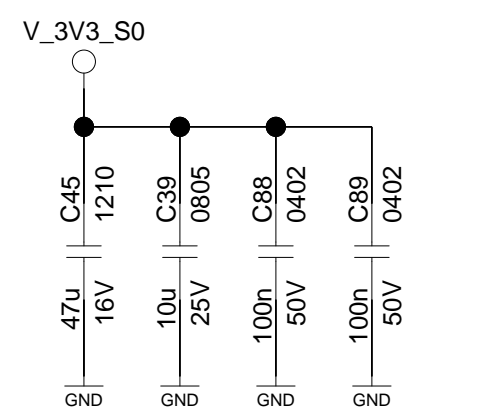
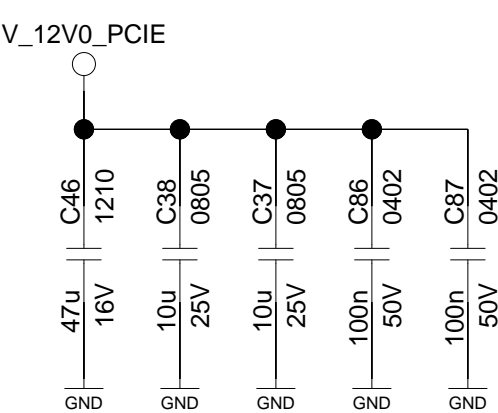
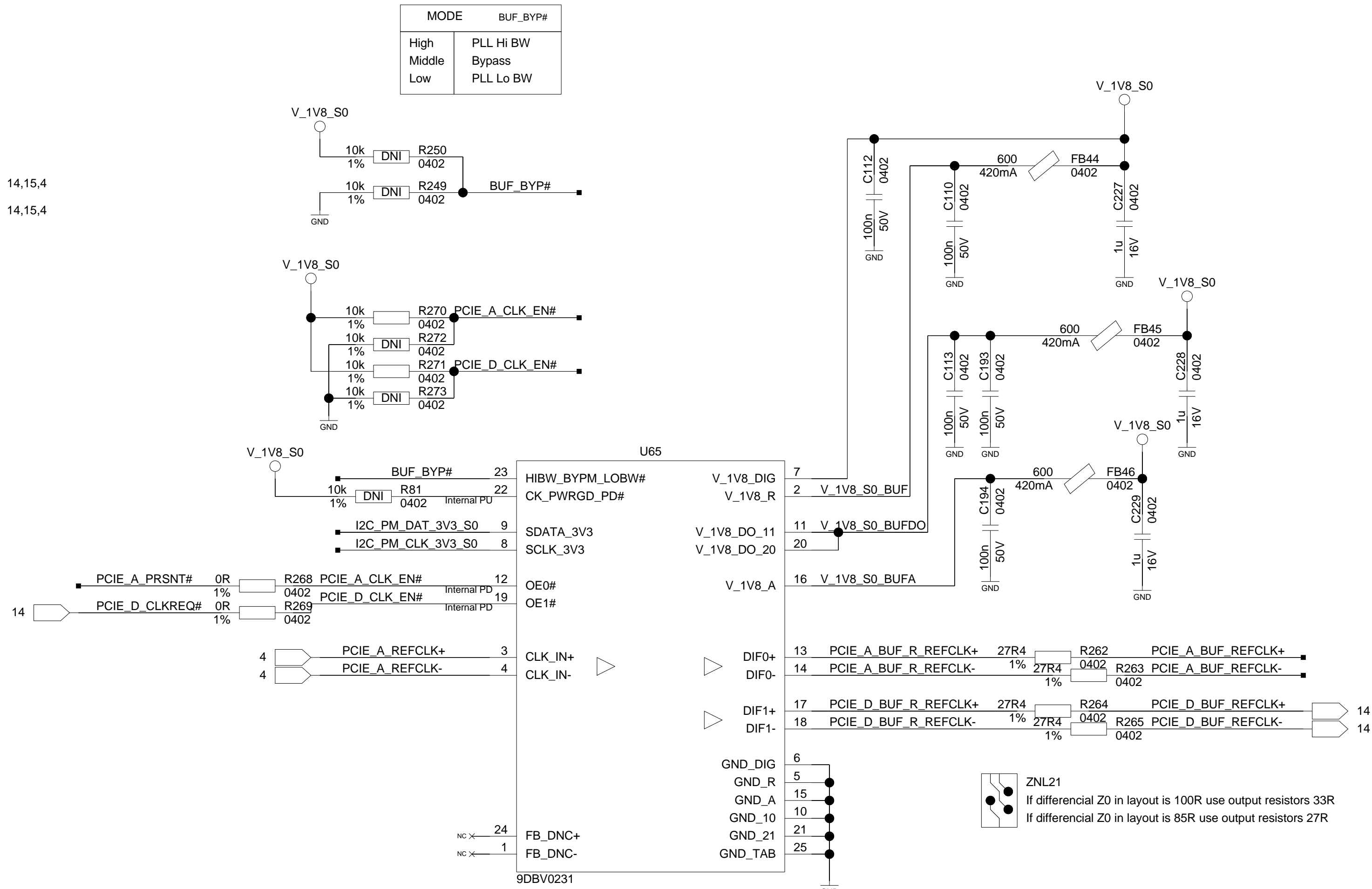
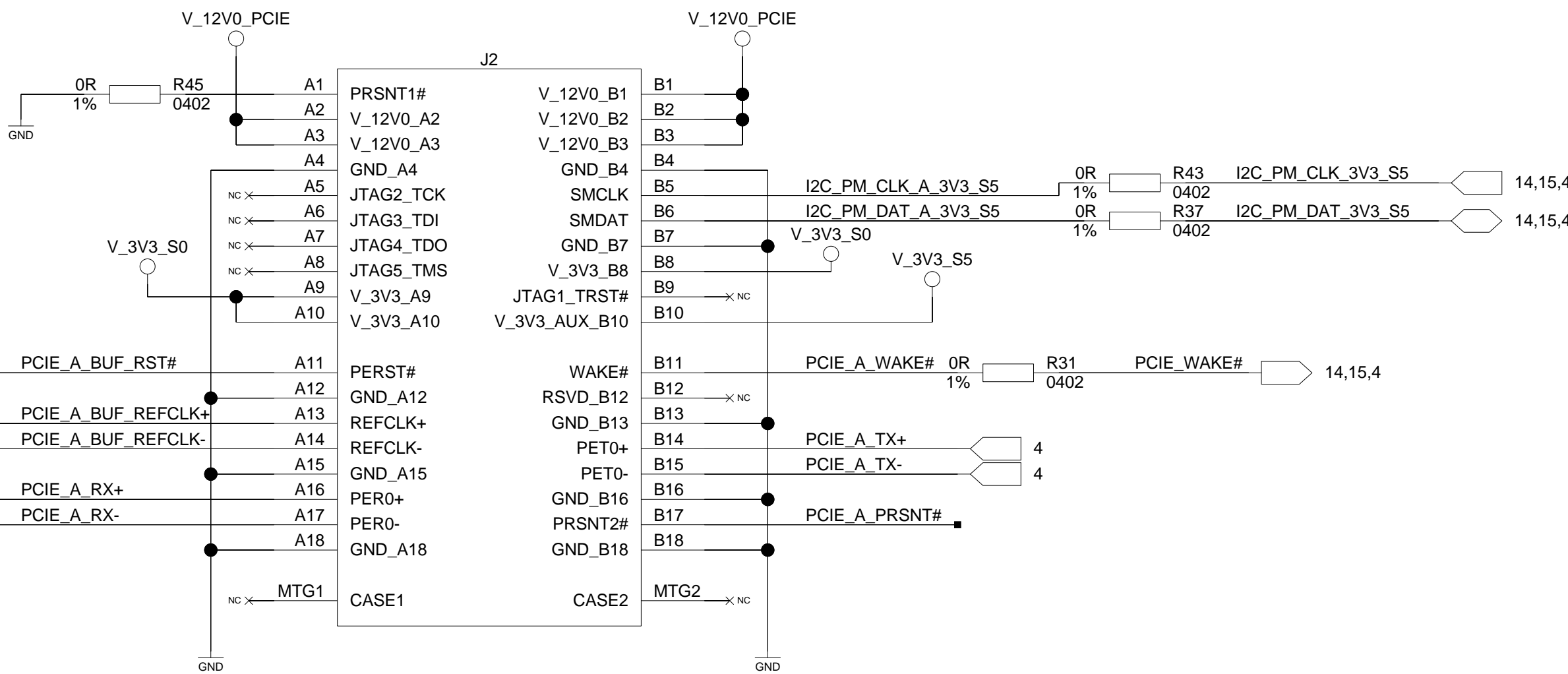
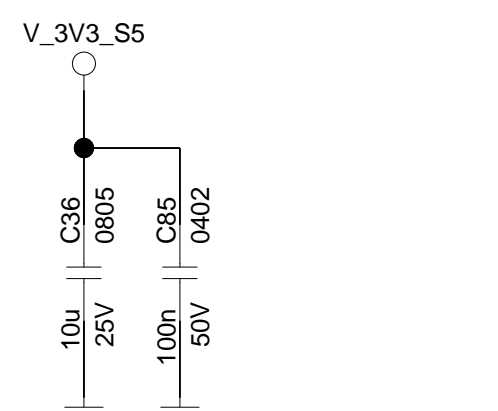
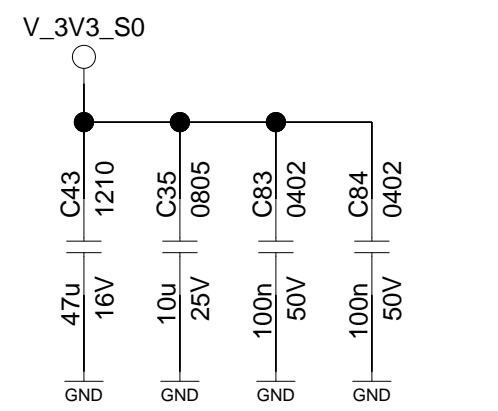
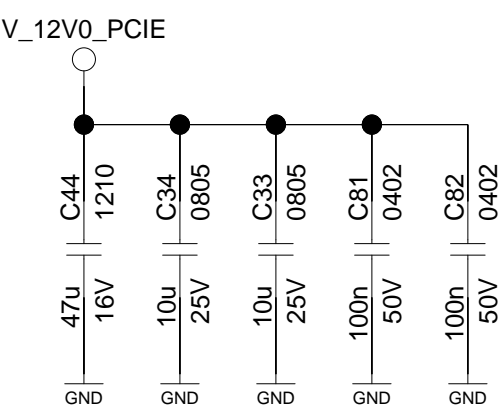
# mPCIe Connectors



PROJECT			SMARC Eval 2.0			 <b>kontron</b>		
			ADS2 - SMARC Eval 2.0					
BLOCK ID						DIVISION	NAME	DATE YYYY-MM-DD
Schematic1 ( 14 of 30 )						CREATED:	KEEDC JM, JH ,MV	2017.11.17
						VERIFIED:	KEEDC MH	2017.11.20
SHEET						APPROVED:		
14 mPCIe								
PCB ID	PCB INDEX	LAST MODIFIED				PAGE	DRAWING ID	REV
1062-0139	1400A	01/12/2017:10:39				14 OF 30	SCH 1400	D00



# PCIe x1 Connectors, Clock Buffer



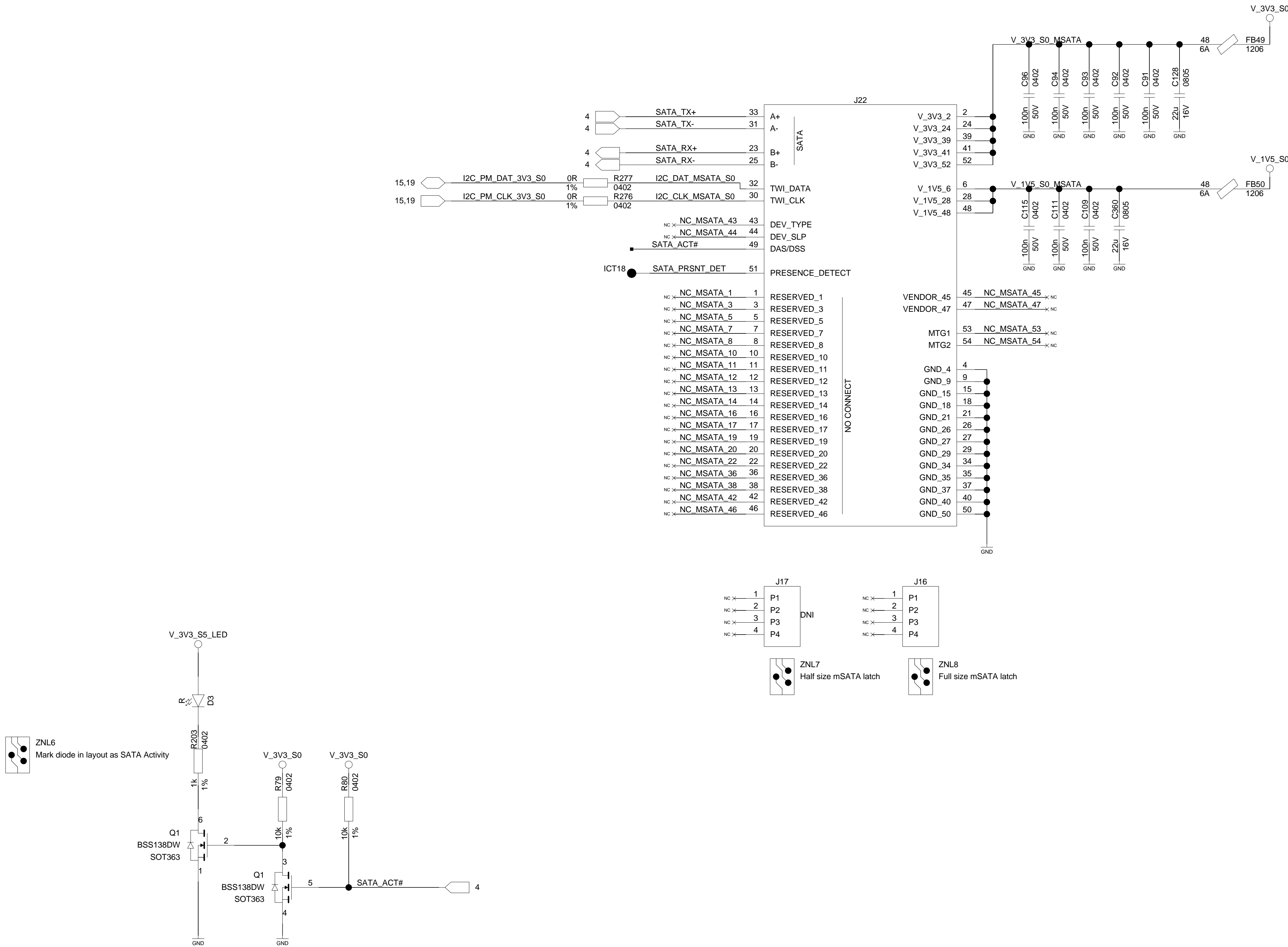
PROJECT			<div><div></div><div><b>kontron</b></div></div>		
SMARC Eval 2.0					
ADS2 - SMARC Eval 2.0					
BLOCK ID			DIVISION		
Schematic1 ( 15 of 30 )			NAME		
SHEET			DATE YYYY-MM-DD		
15 PCIe x1 Clock Buffer			CREATED: KEEDC JM, JH ,MV 2017.11.17		
			VERIFIED: KEEDC MH 2017.11.20		
			APPROVED:		
PCB ID	PCB INDEX	LAST MODIFIED	PAGE	DRAWING ID	REV
1062-0139	1400A	20/11/2017:15:03	15 OF 30	SCH 1400	D00

This drawing is proprietary to Kontron and may not be utilized in any means, electronic or mechanical including photocopying and retrieval system without express written permission of Kontron.

Schematics are for reference only.  
Refer to ERP BOM and assembly instruction for build values.

Created using CAD MGC VX 1.1

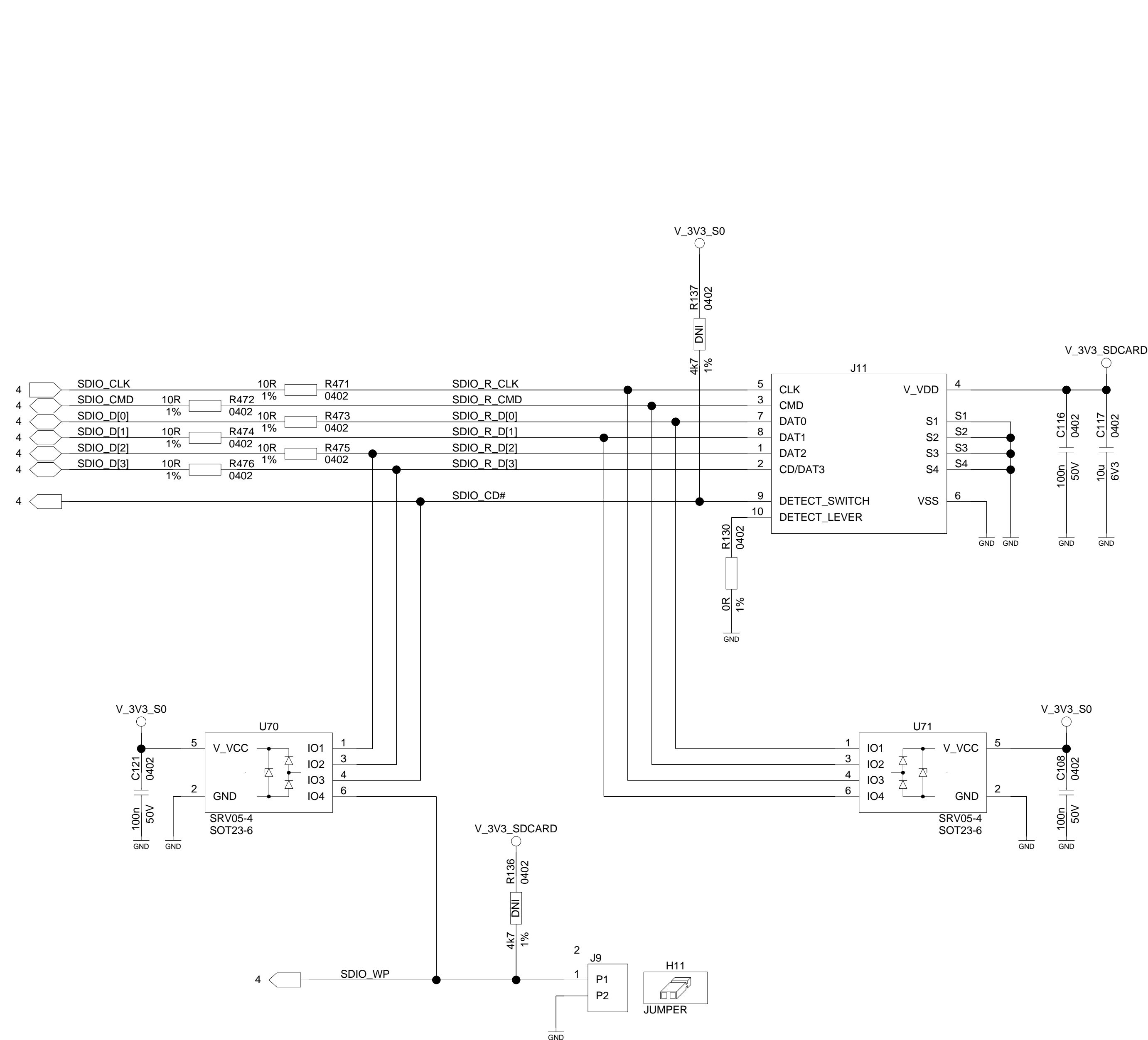
mSATA Connector



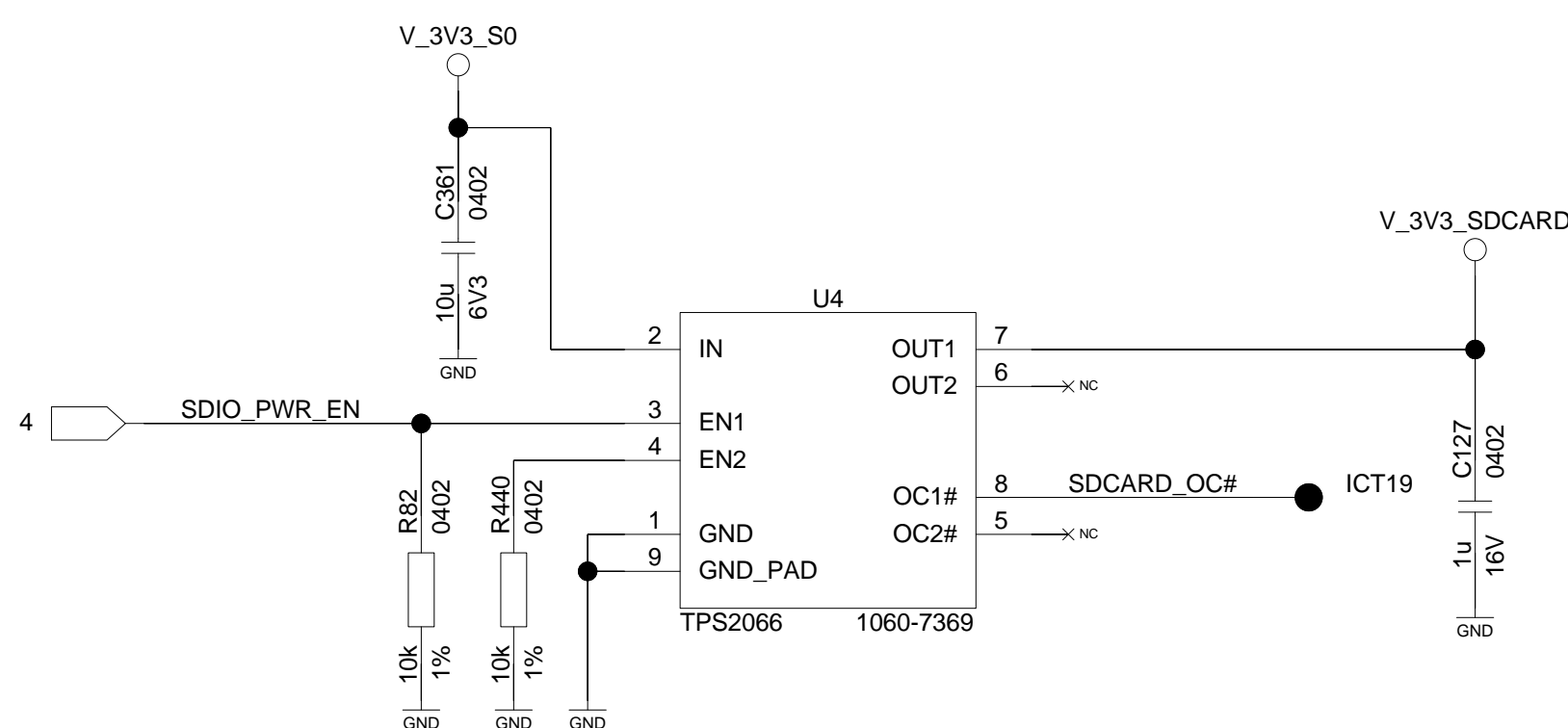
PROJECT			SMARC Eval 2.0			<div> <b>kontron</b></div>		
			ADS2 - SMARC Eval 2.0					
BLOCK ID			DIVISION	NAME	DATE YYYY-MM-DD			
Schematic1 ( 16 of 30 )			CREATED: KEEDC	JM, JH ,MV	2017.11.17			
SHEET			VERIFIED: KEEDC	MH	2017.11.20			
16 mSATA			APPROVED:					
PCB ID	PCB INDEX	LAST MODIFIED	PAGE	DRAWING ID	REV			
1062-0139	1400A	20/11/2017:15:03	16 OF 30	SCH 1400	D00			



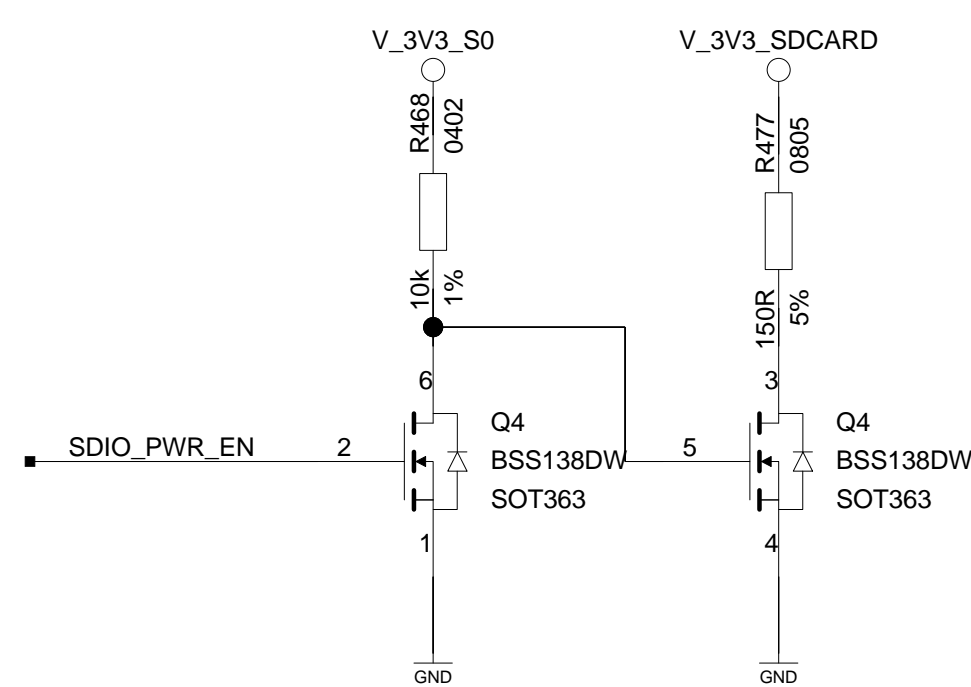
# uSD Connector




**i** uSD card write protect setting  
Low - Write enabled  
HIGH: Write disabled

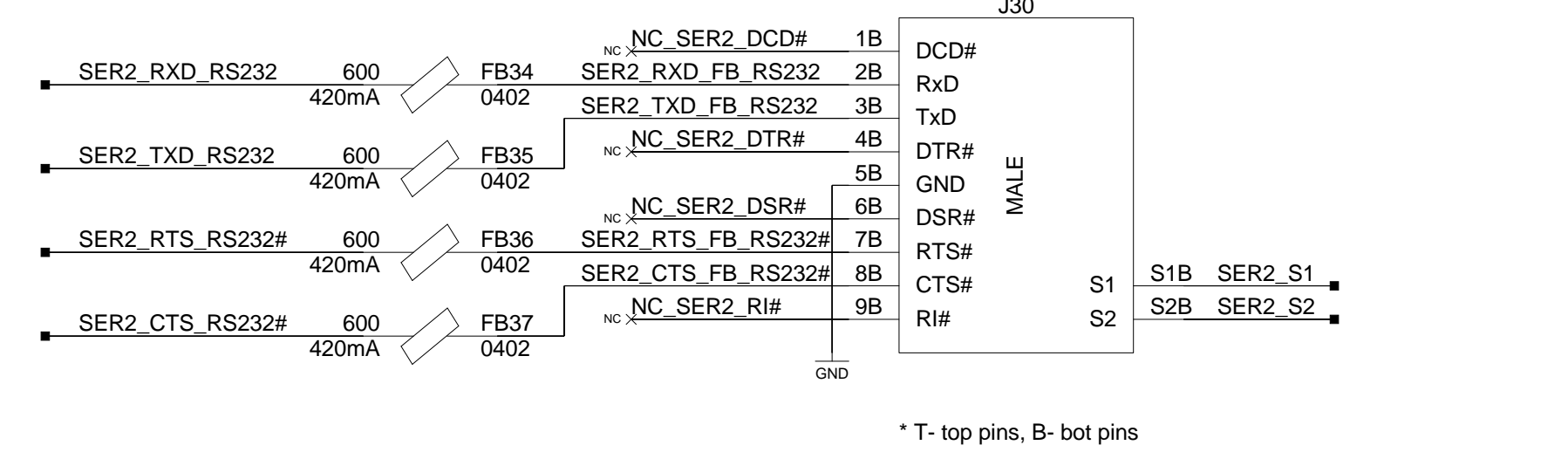
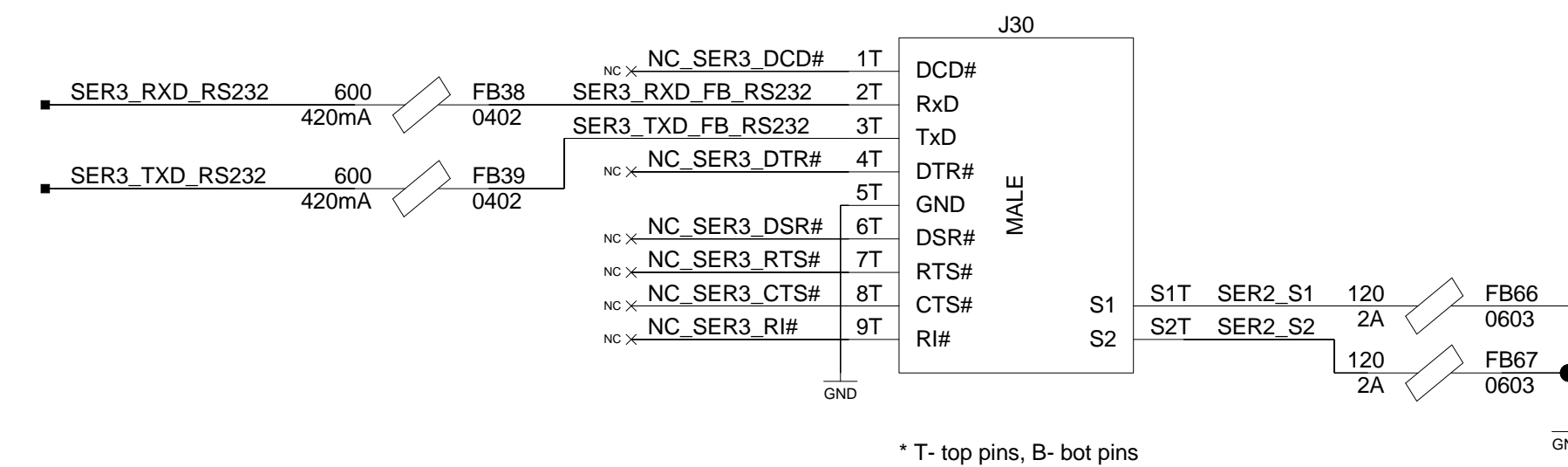
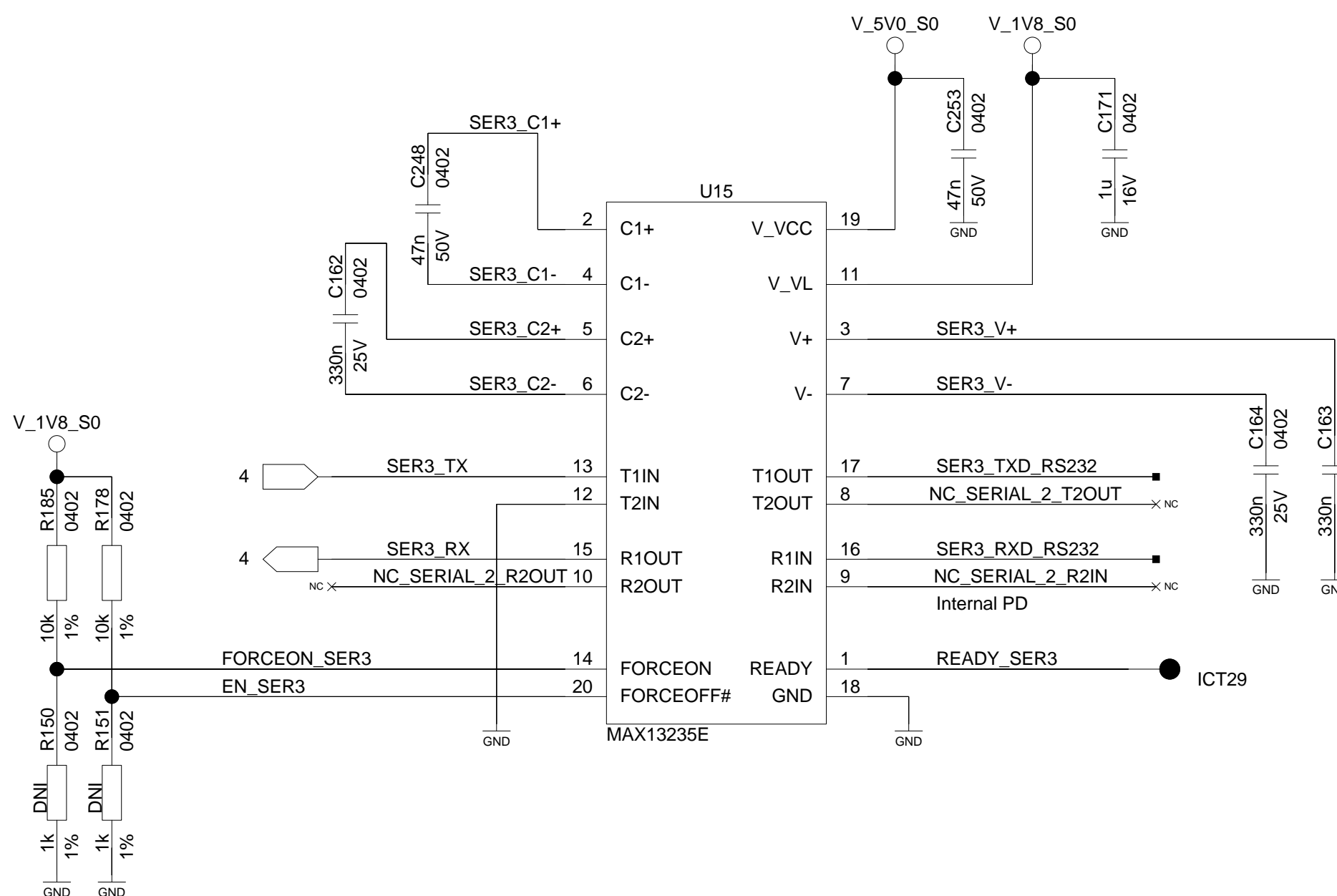
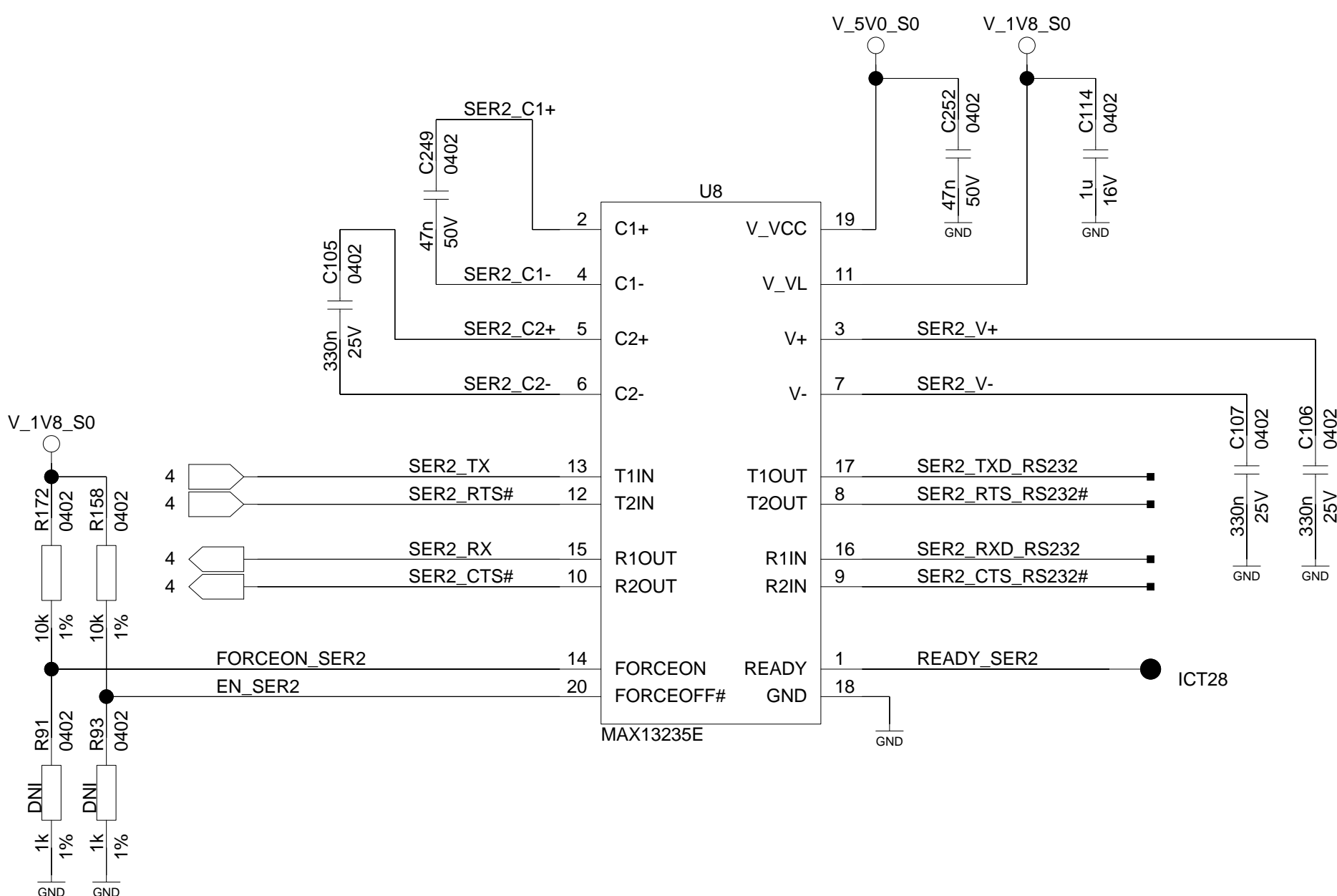
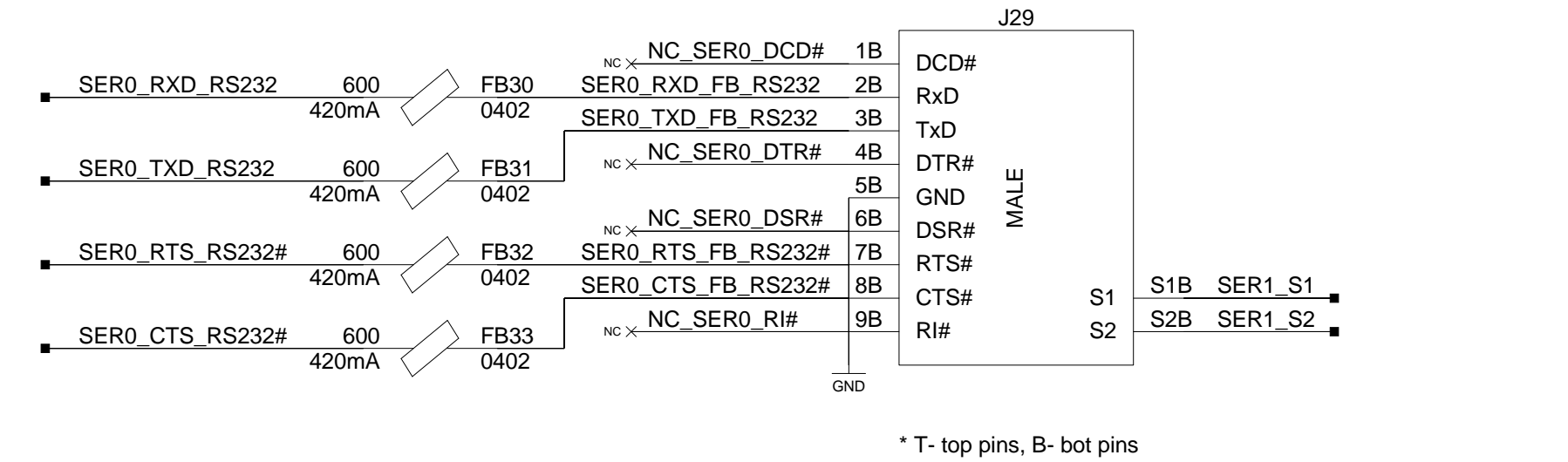
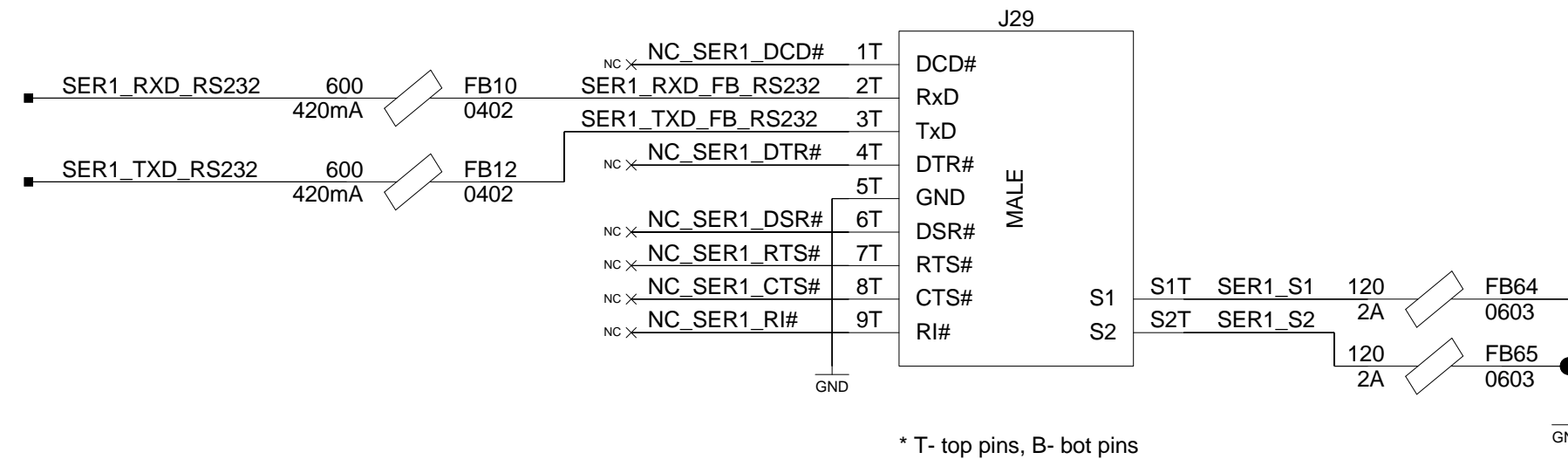
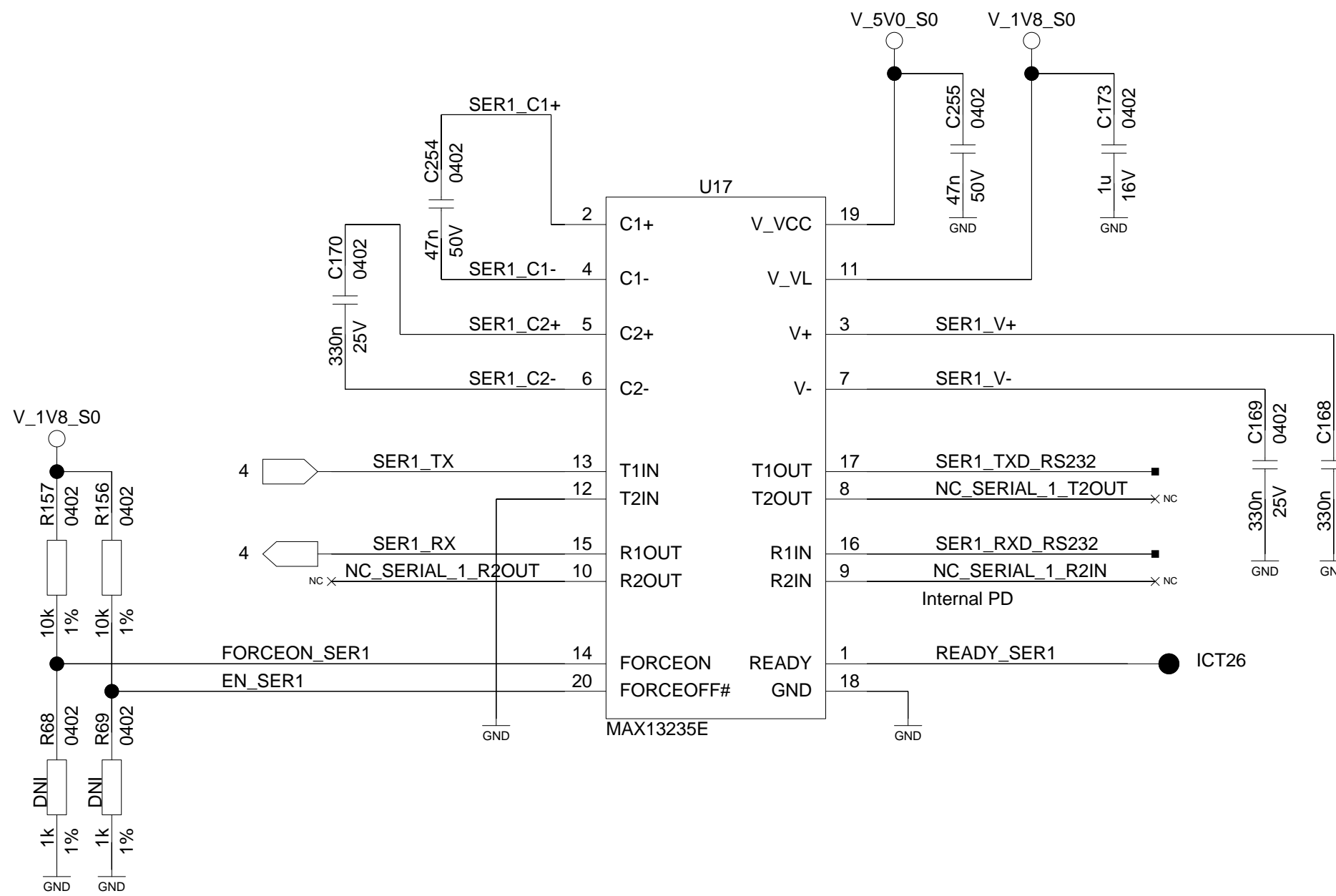
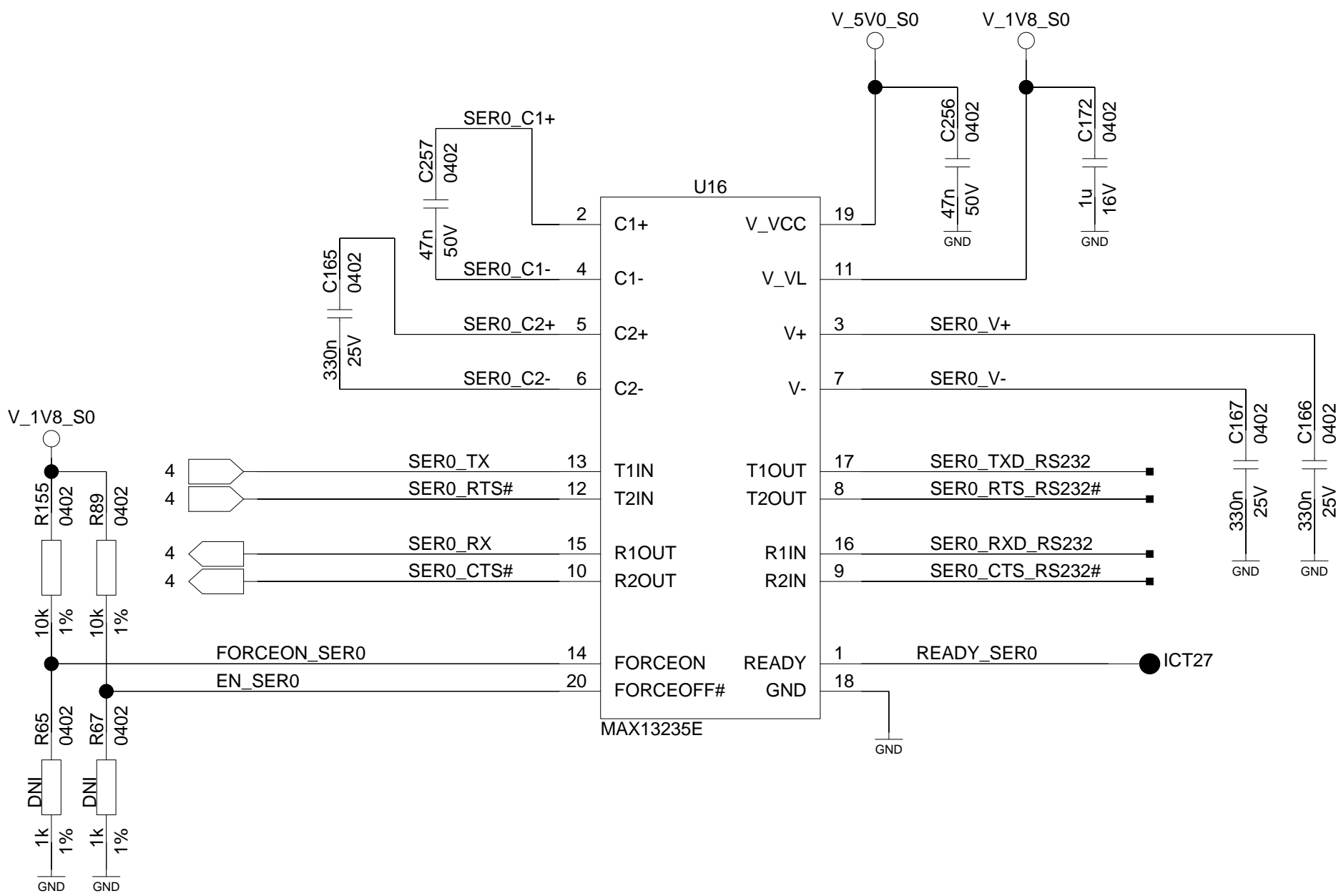


## DISCHARGE



PROJECT SMARC Eval 2.0 ADS2 - SMARC Eval 2.0					
BLOCK ID Schematic1 ( 17 of 30 )			DIVISION KEEDC	NAME JM, JH ,MV	DATE YYYY-MM-DD 2017.11.17
SHEET 17 uSD			VERIFIED: KEEDC	MH	2017.11.20
PCB ID 1062-0139			APPROVED:		
PCB INDEX 1400A			LAST MODIFIED 20/11/2017:15:03		
PAGE 17 OF 30			DRAWING ID SCH 1400		
			REV D00		

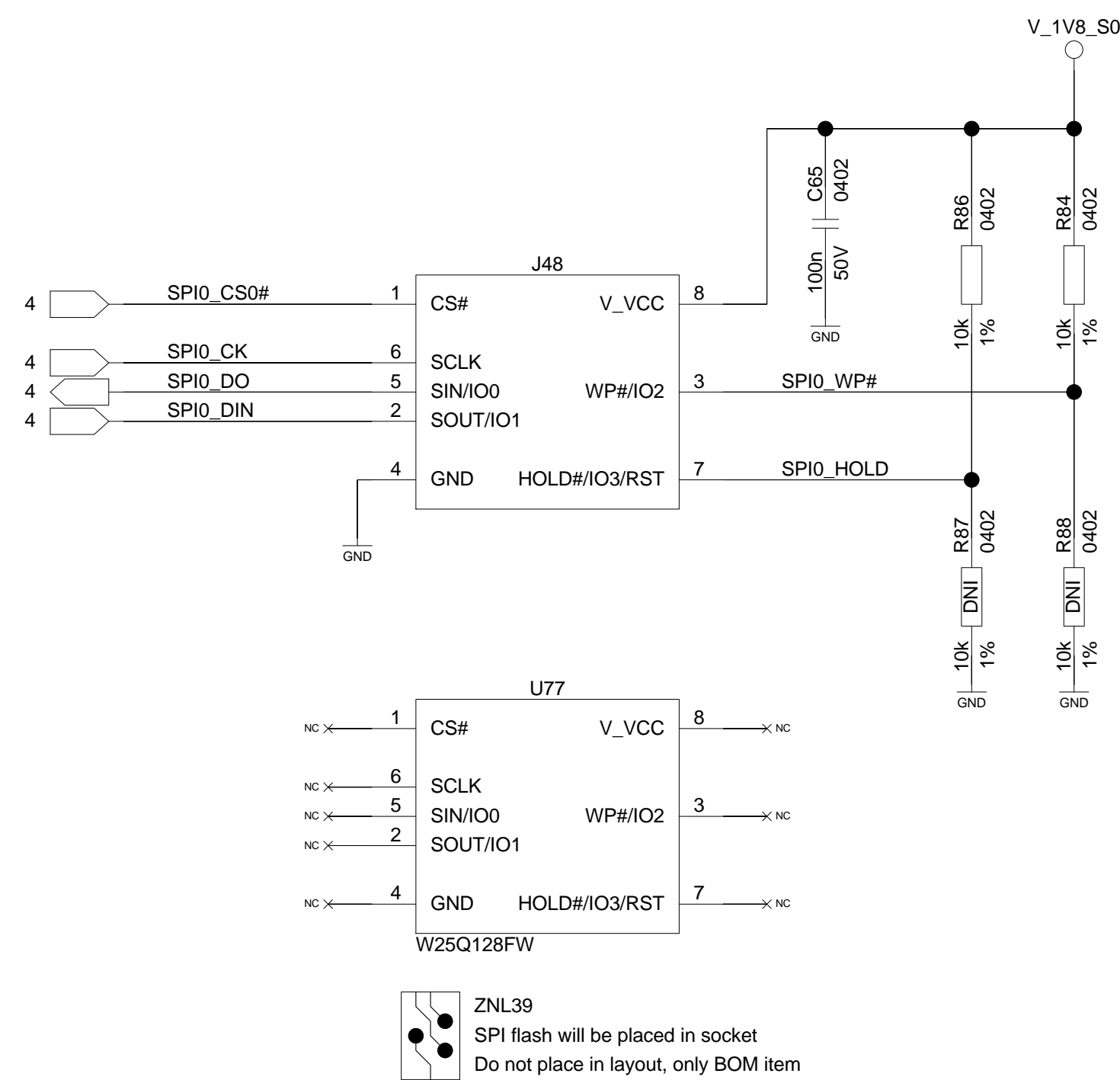
# High Speed Serial Ports



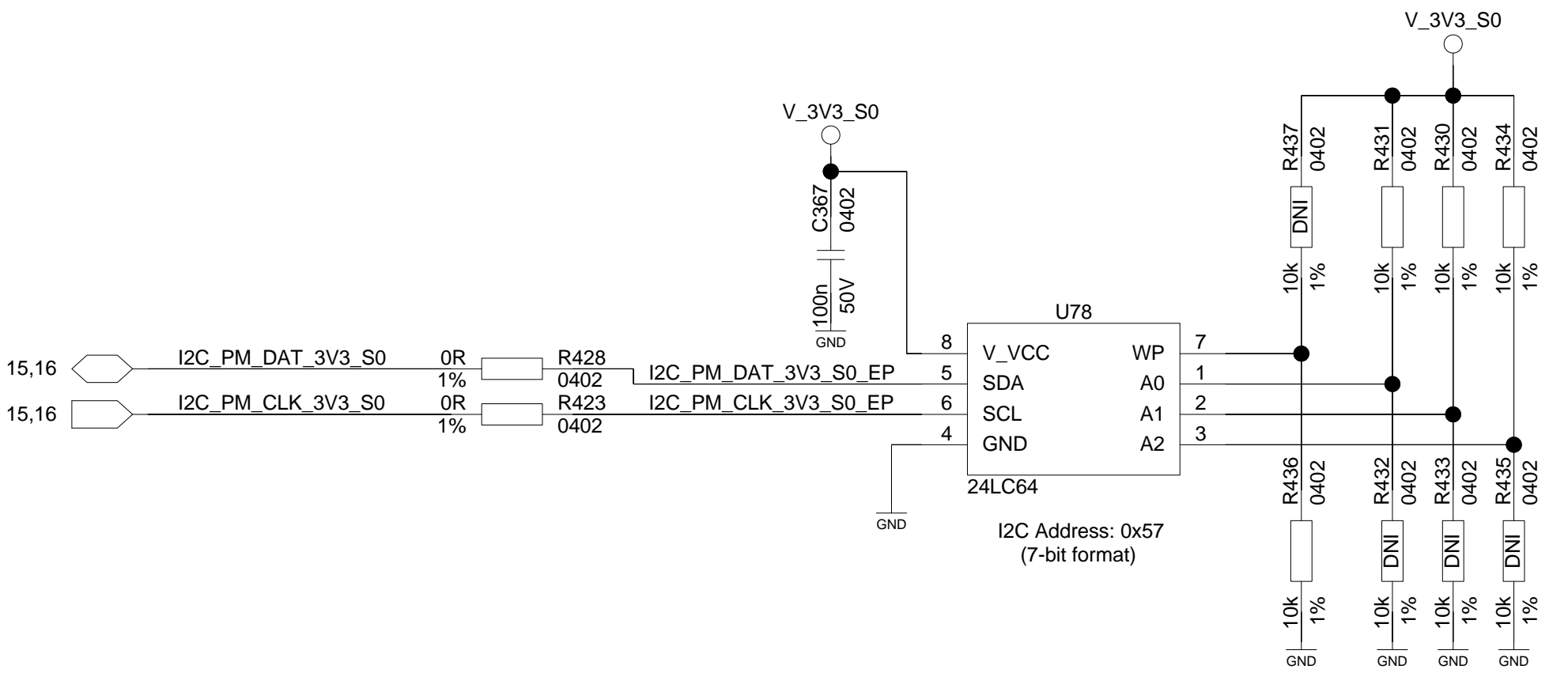
PROJECT			SMARC Eval 2.0			 <b>kontron</b>					
			ADS2 - SMARC Eval 2.0								
BLOCK ID						DIVISION		NAME		DATE YYYY-MM-DD	
Schematic1 ( 18 of 30 )						CREATED:		KEEDC		JM, JH, MV 2017.11.17	
						VERIFIED:		KEEDC		MH 2017.11.20	
SHEET						APPROVED:					
18 High Speed Serial Ports											
PCB ID		PCB INDEX		LAST MODIFIED		PAGE		DRAWING ID		REV	
1062-0139		1400A		20/11/2017:15:03		18 OF 30		SCH 1400		D00	



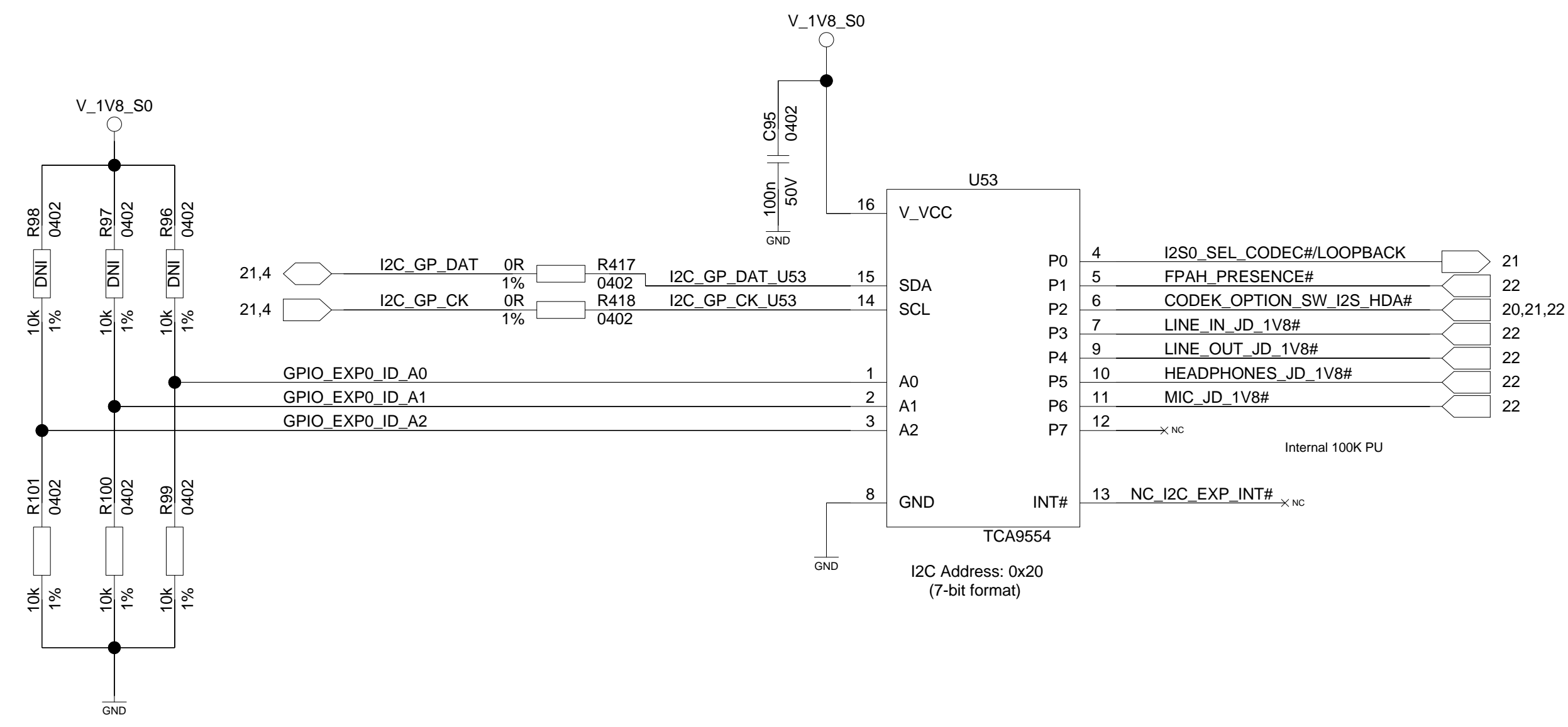
# SPI Flash Socket



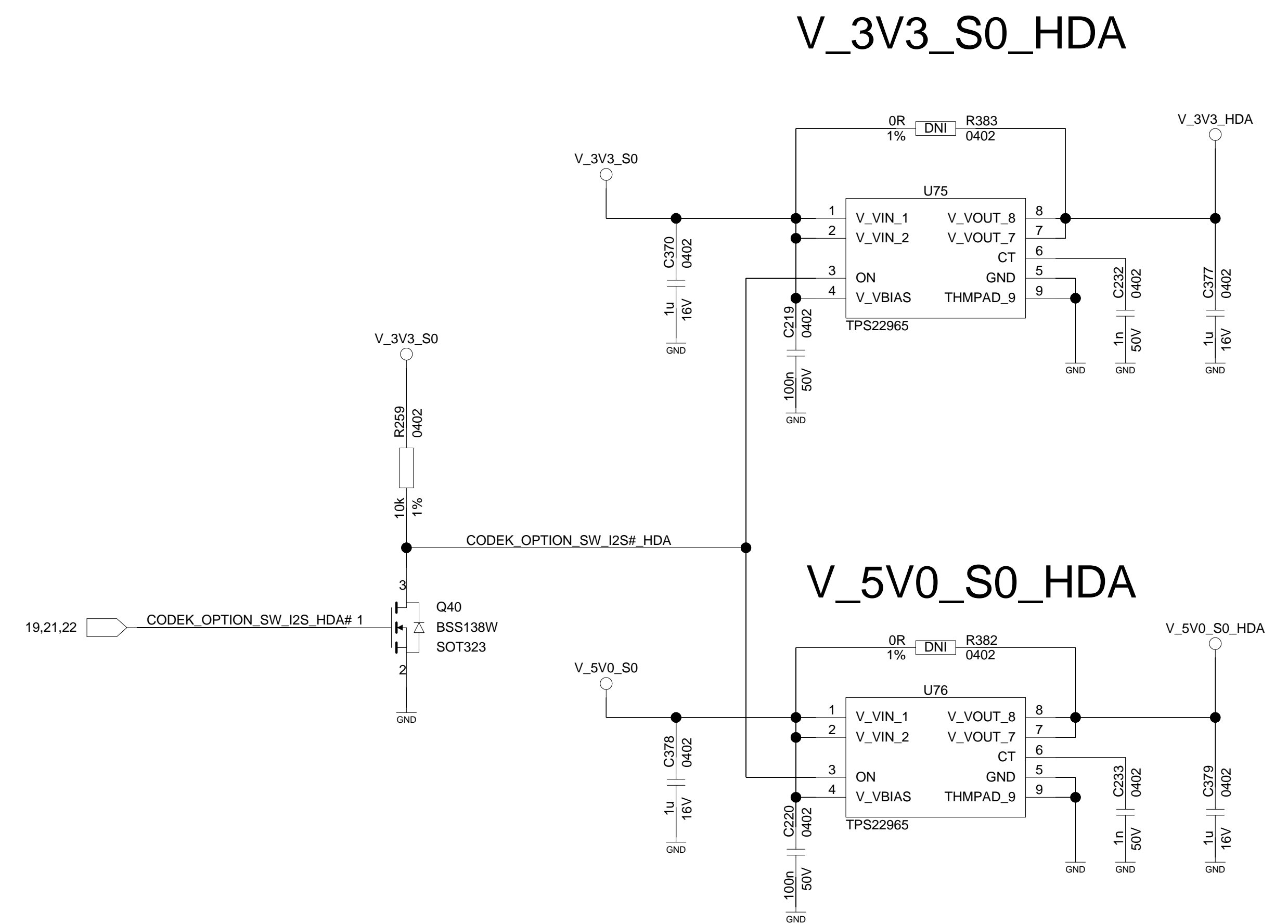
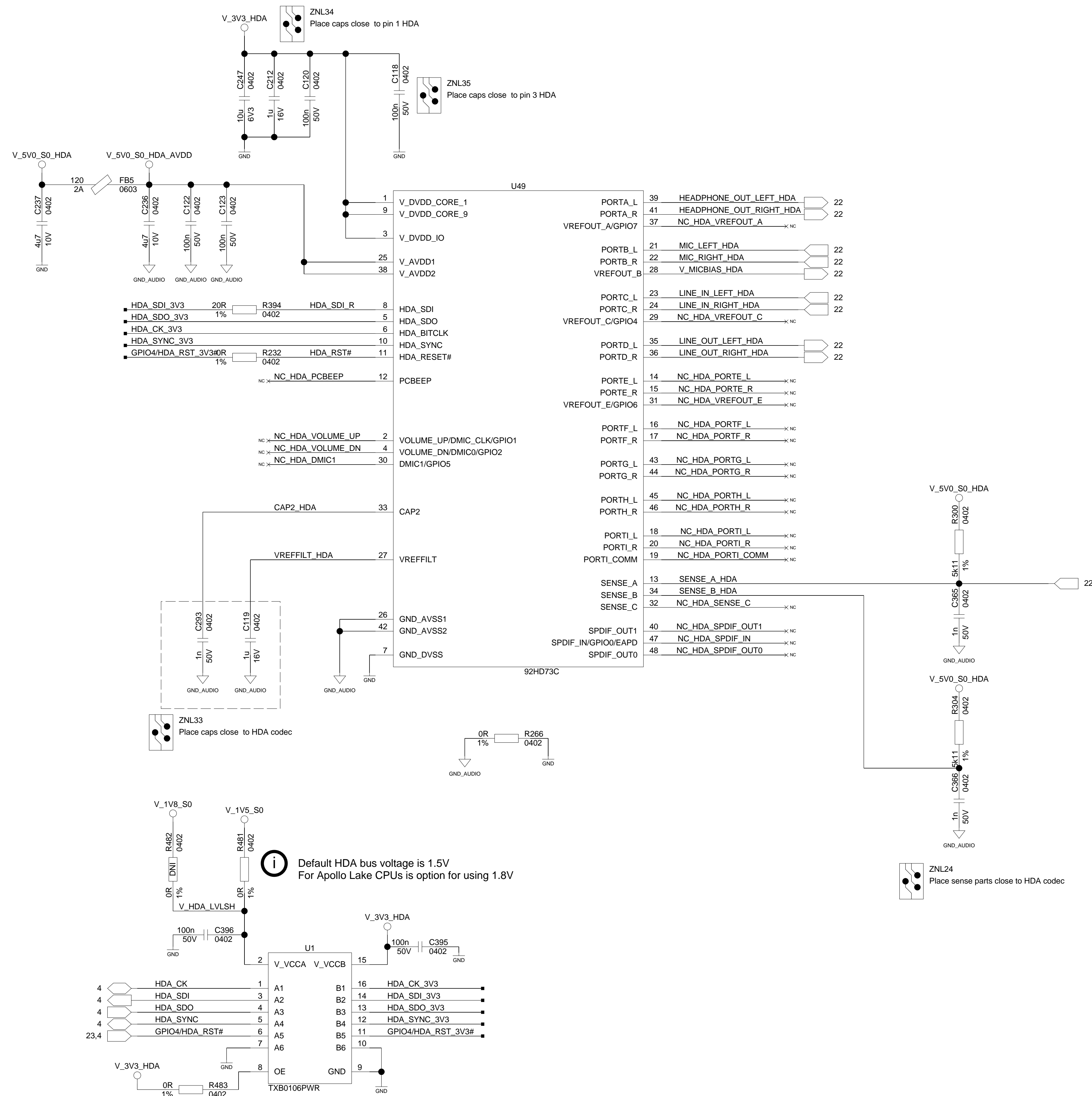
# General Purposed I2C EEPROM



# I2C Expander



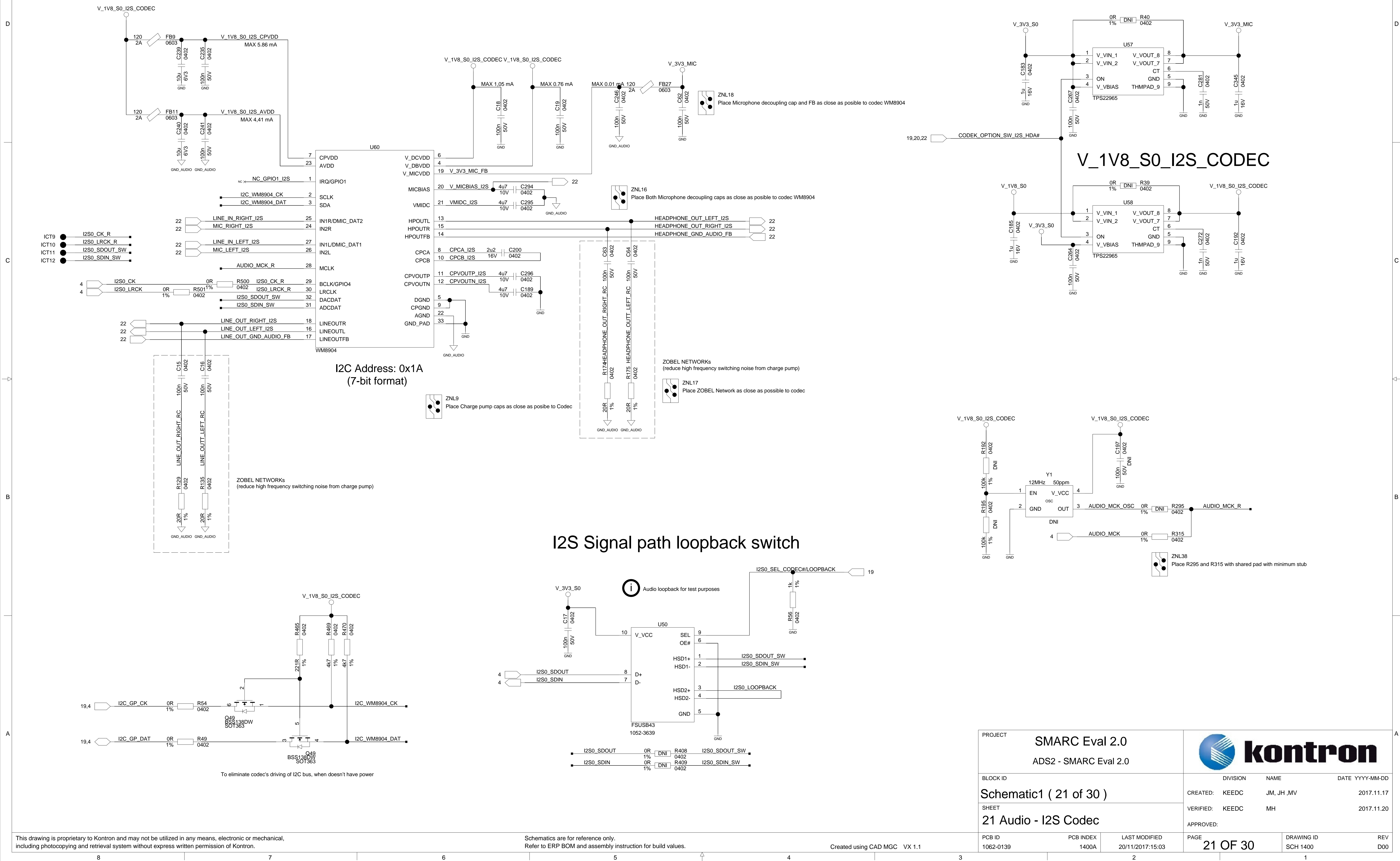
# Audio HDA Codec



PROJECT			<div>SMARC Eval 2.0</div> <div>ADS2 - SMARC Eval 2.0</div>			<div> <b>kontron</b></div>			
BLOCK ID			DIVISION			NAME		DATE YYYY-MM-DD	
Schematic1 ( 20 of 30 )			CREATED: KEEDC		JM, JH ,MV		2017.11.17		
SHEET			VERIFIED: KEEDC		MH		2017.11.20		
20 Audio - HDA Codec			APPROVED:						
PCB ID		PCB INDEX	LAST MODIFIED		PAGE		DRAWING ID		REV
1062-0139		1400A	20/11/2017:15:03		20 OF 30		SCH 1400		D00



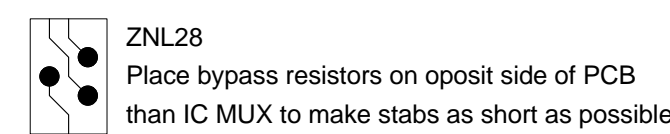
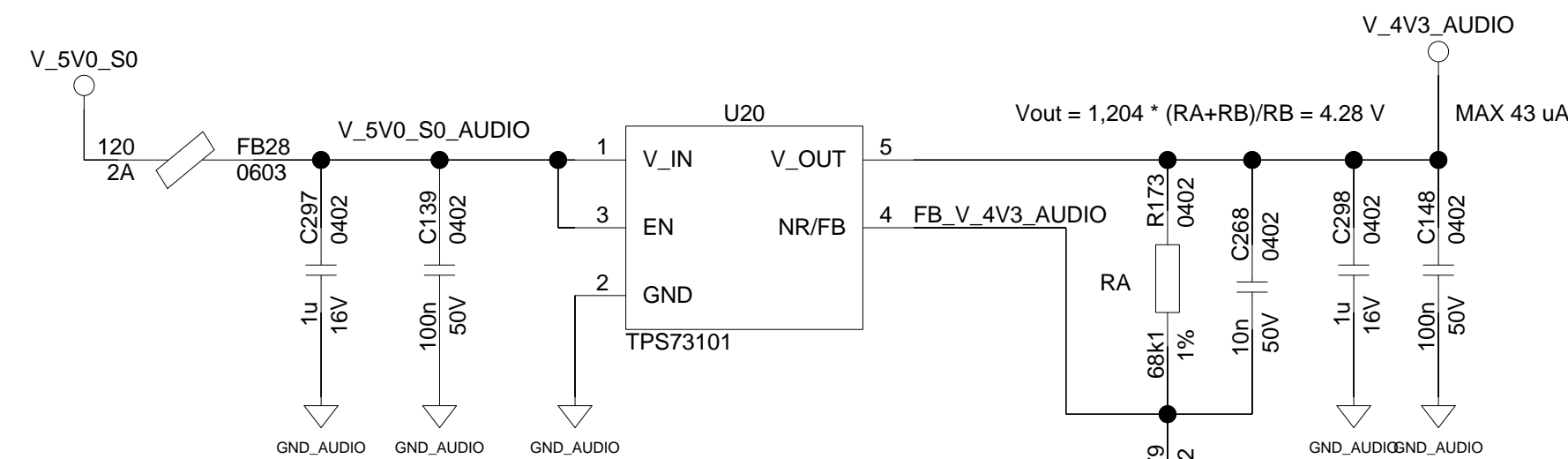
# Audio I2S Codec WM8904



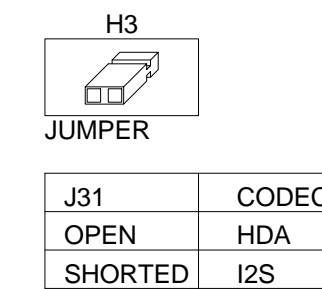
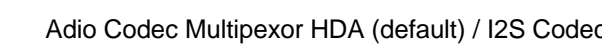
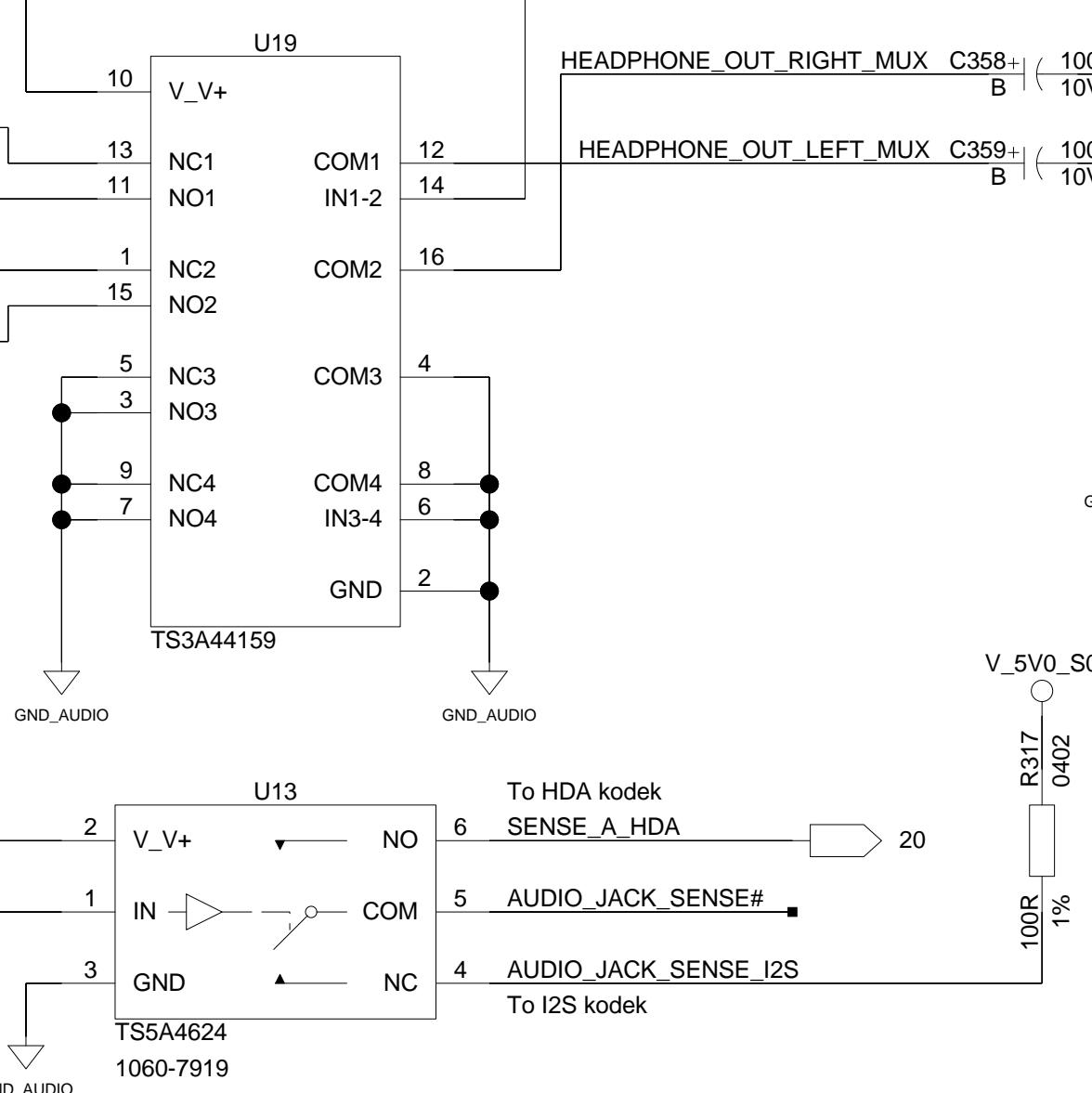
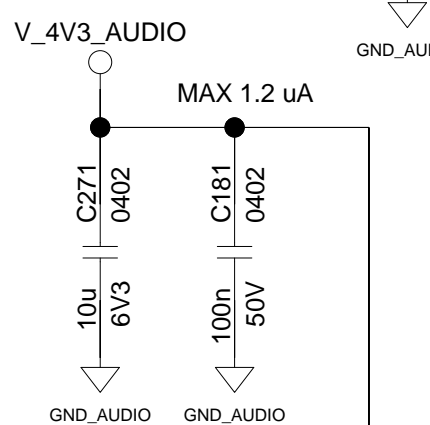
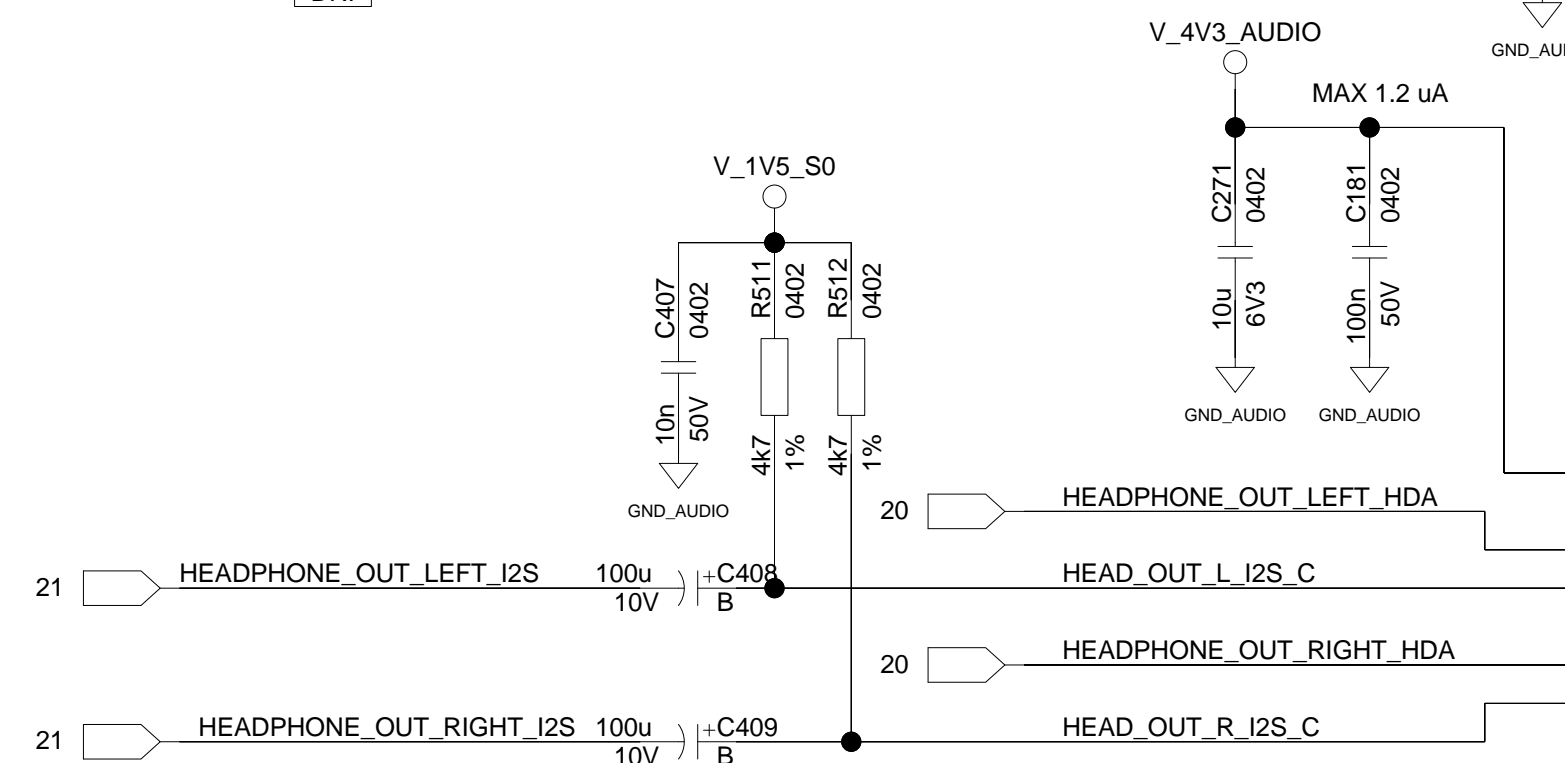
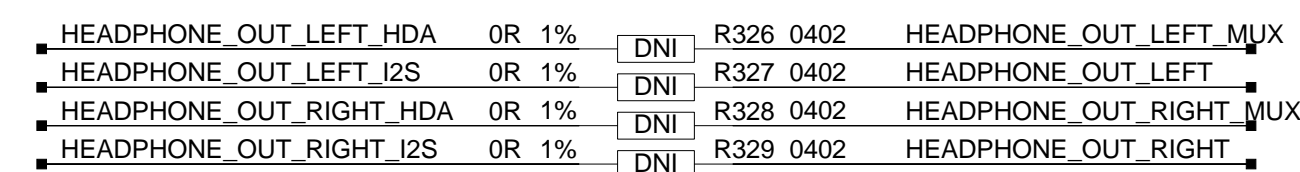
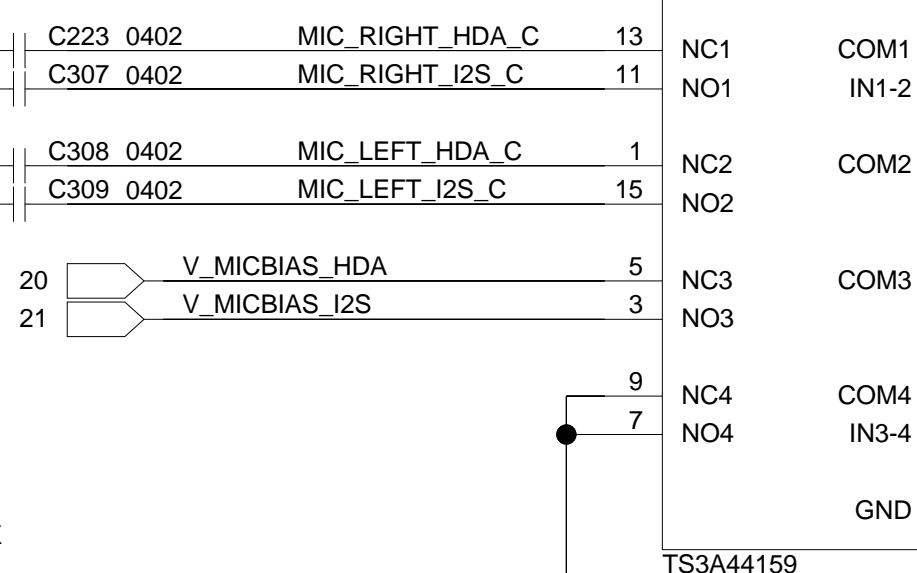
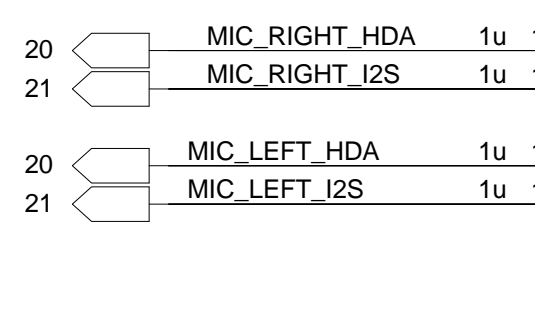
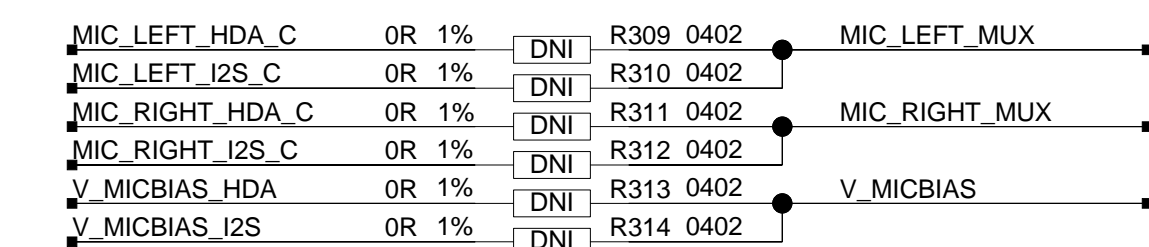
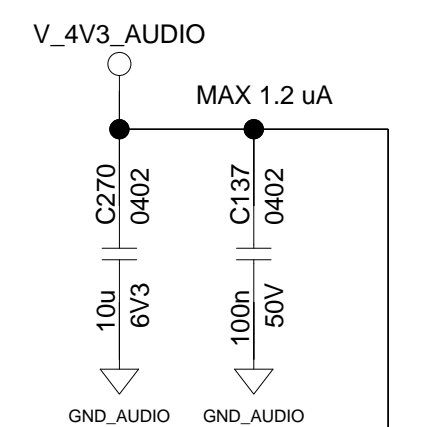
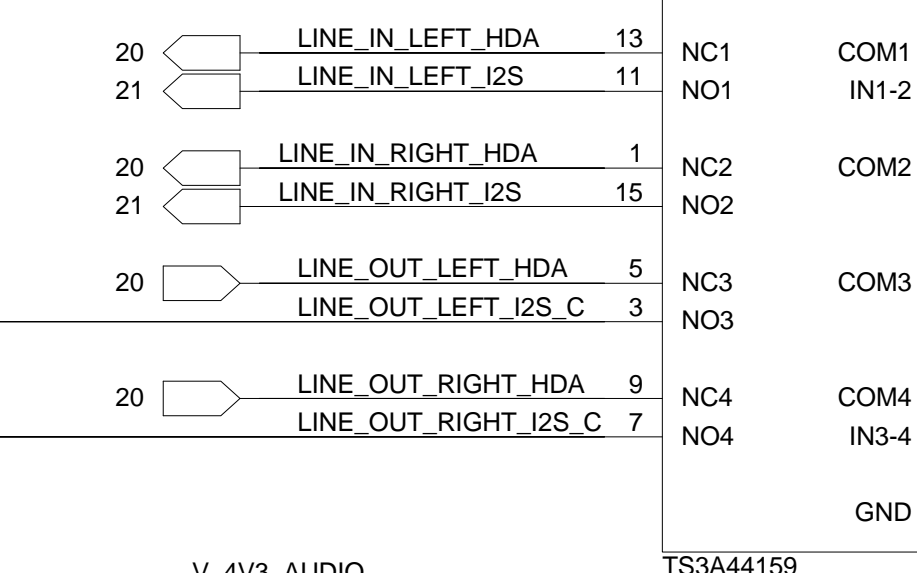
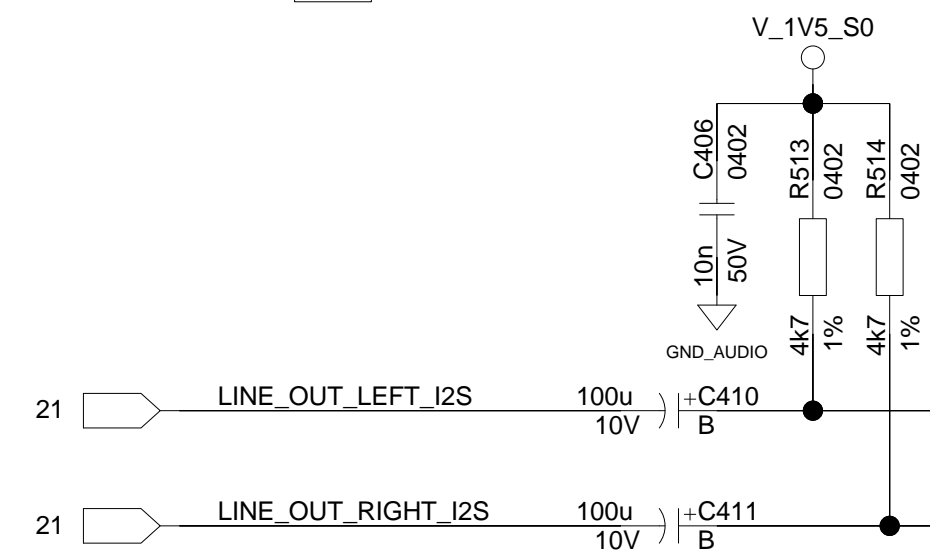
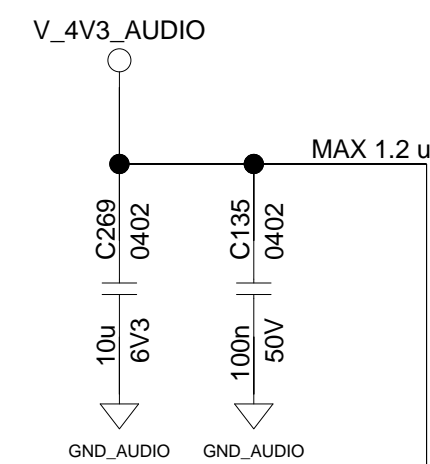
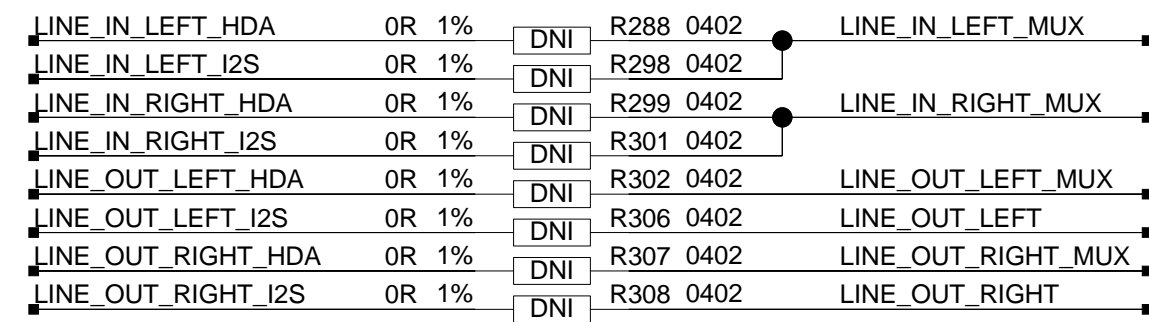


# Audio connectors and Analog Multiplexers

## V\_4V3\_AUDIO



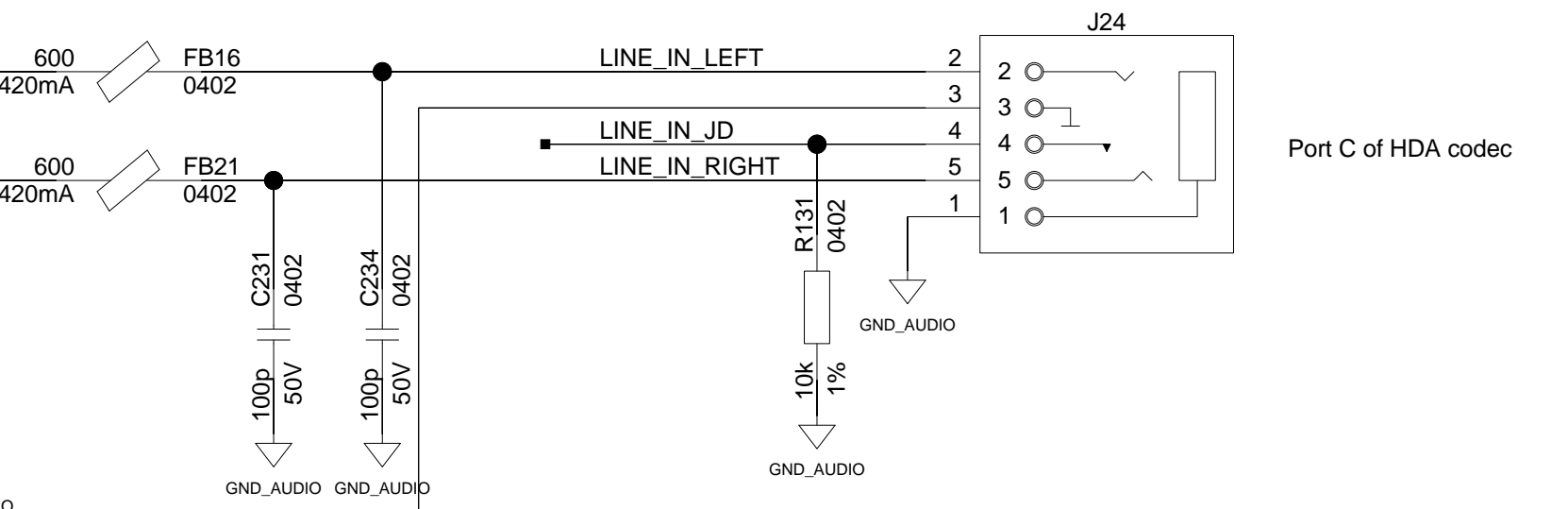
### Mux Bypass resistors



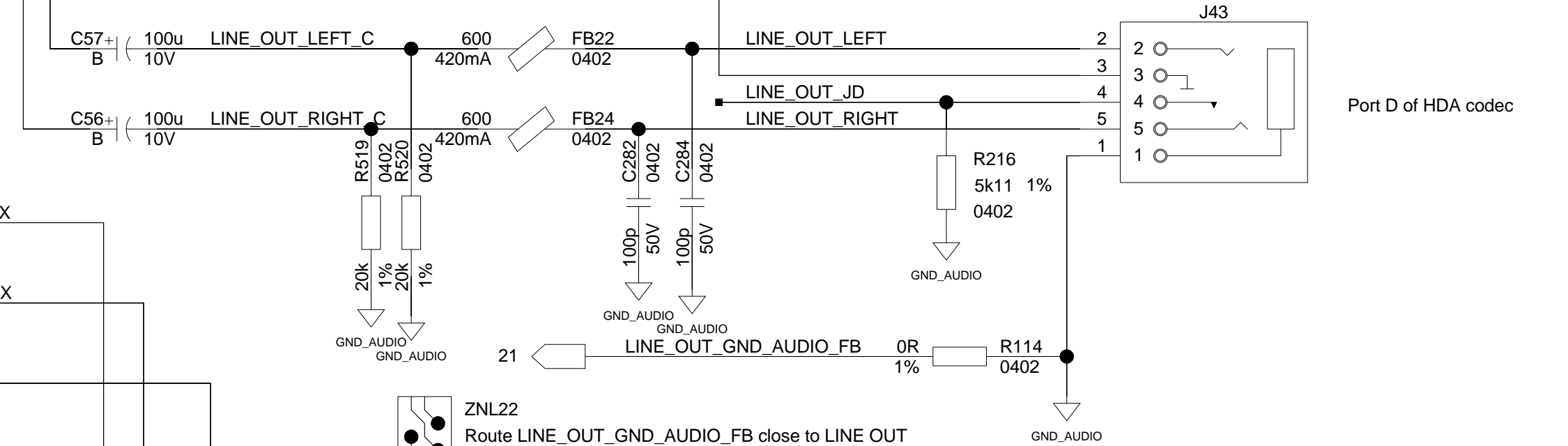
JACK	Signal	Function	Voltage	Log
LINE IN	LINE_IN_ID	Plug	5V	1
		Unplug	0	0
LINE OUT	LINE_OUT_ID	Plug	5V	1
		Unplug	0	0
MIC (*)	MIC_ID	Plug	5V	1
		Unplug	0	0
HEADPHONES (*)	HEADPHONES_ID	Unplug	5V	1
		Plug	0	0

(\*) These two JACKs are available via Front Panel Audio Header and plugged Intel HD Audio Front panel dongle

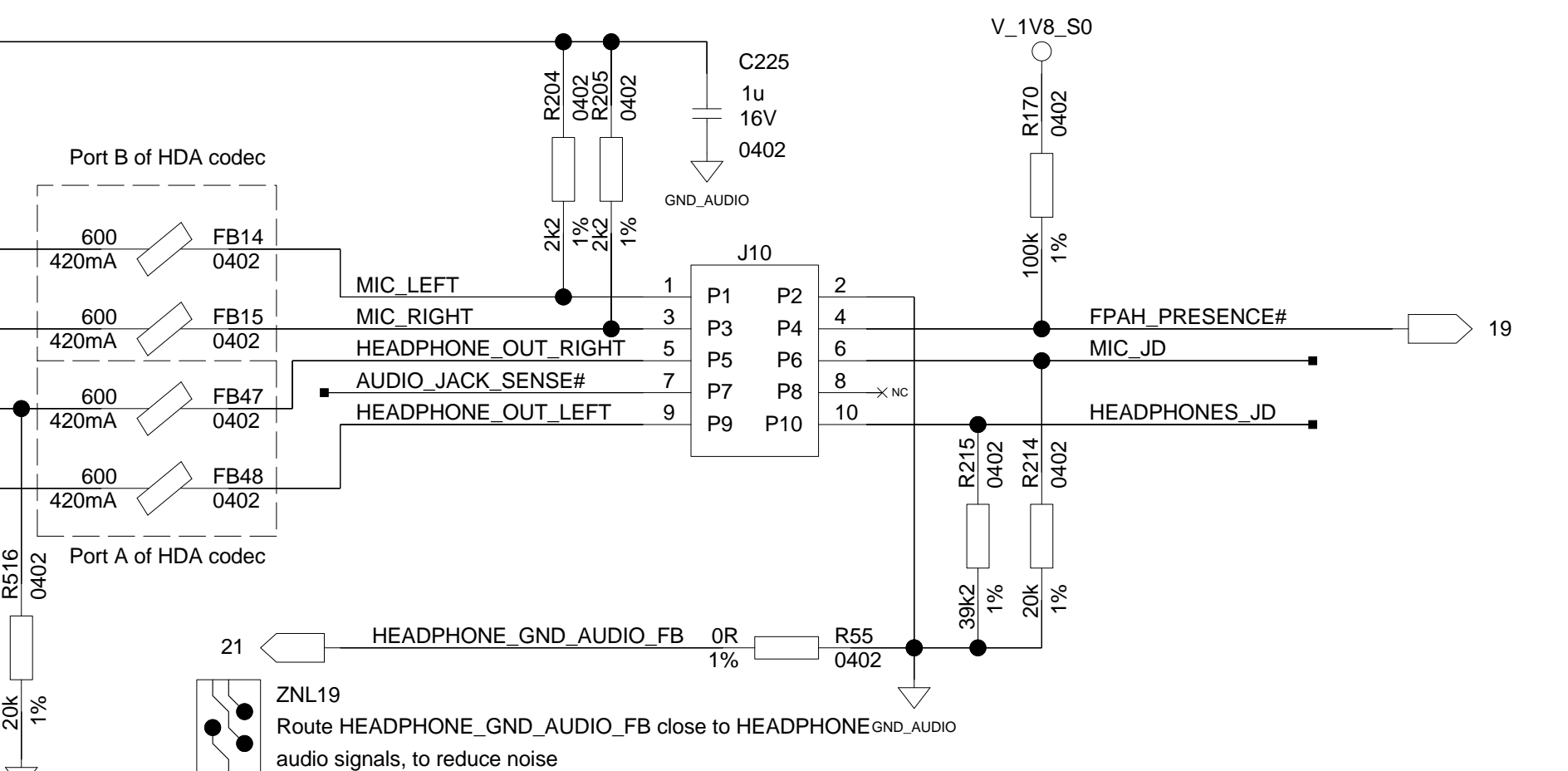
## Line In Jack 3.5 mm



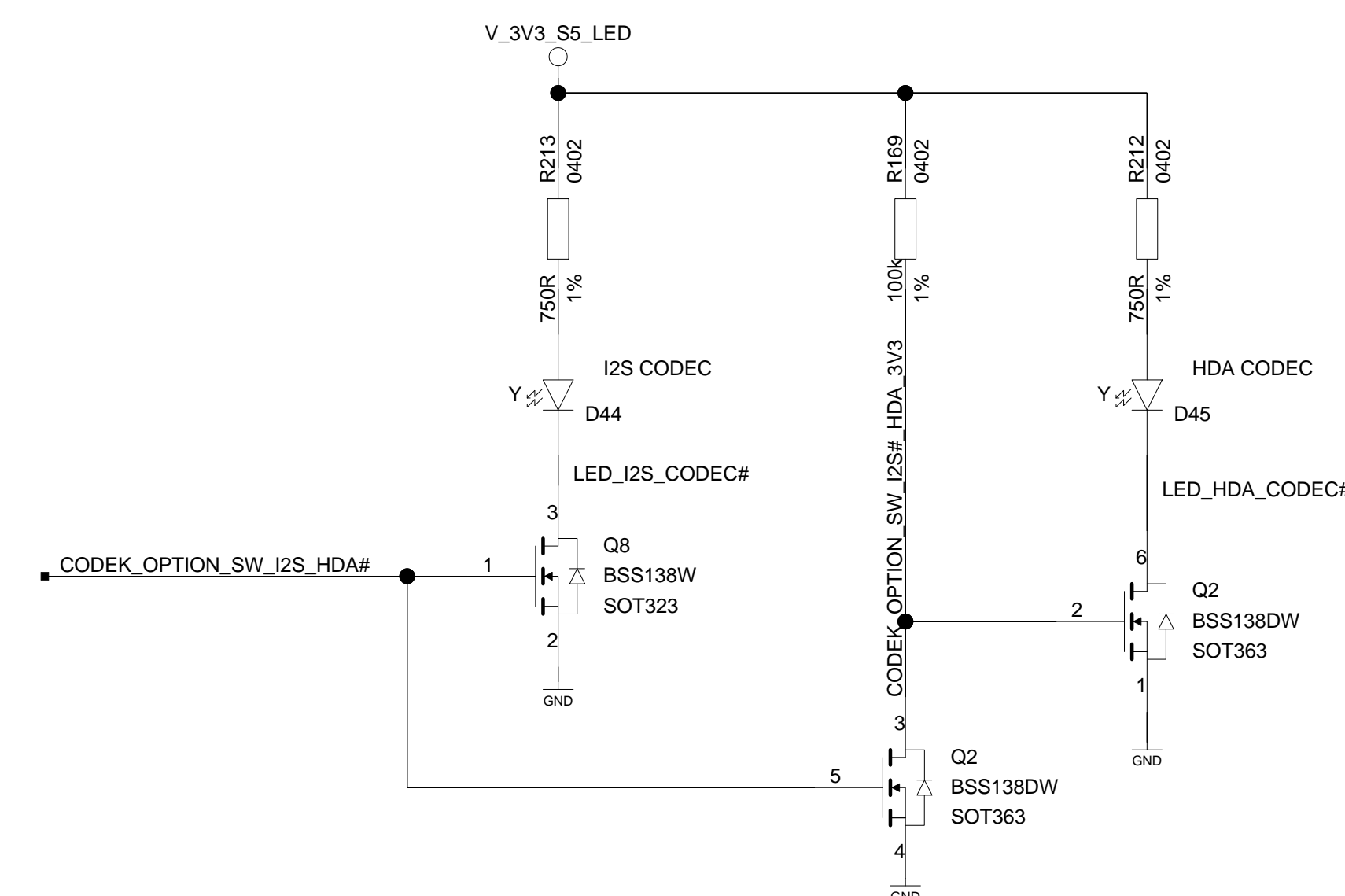
Line Out Jack 3.5 mm



## Front panel Analog Header



## HDA / I2S Audio codec LEDs indication



PROJECT		<div> <div>SMARC Eval 2.0</div> <div>ADS2 - SMARC Eval 2.0</div> </div>		<div>  <div>kontron</div> </div>	
BLOCK ID		DIVISION		NAME	
Schematic1 ( 22 of 30 )		CREATED:		DATE YYYY-MM-DD	
SHEET		VERIFIED:		2017.11.17	
22 Audio - con + mux		KEEDC		JM, JH ,MV	
		APPROVED:		2017.11.20	
PCB ID	PCB INDEX	LAST MODIFIED		PAGE	DRAWING ID
1062-0139	1400A	20/11/2017:15:03		22 OF 30	SCH 1400
					REV
					D00

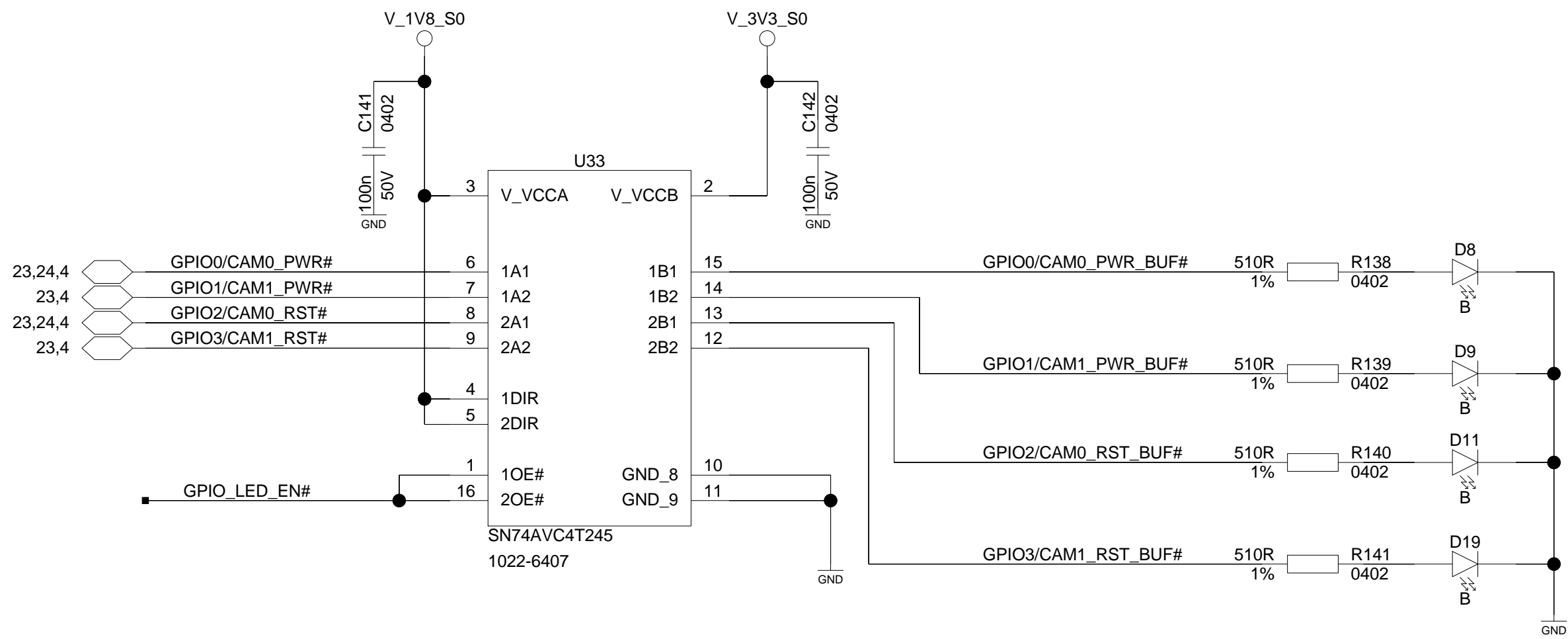
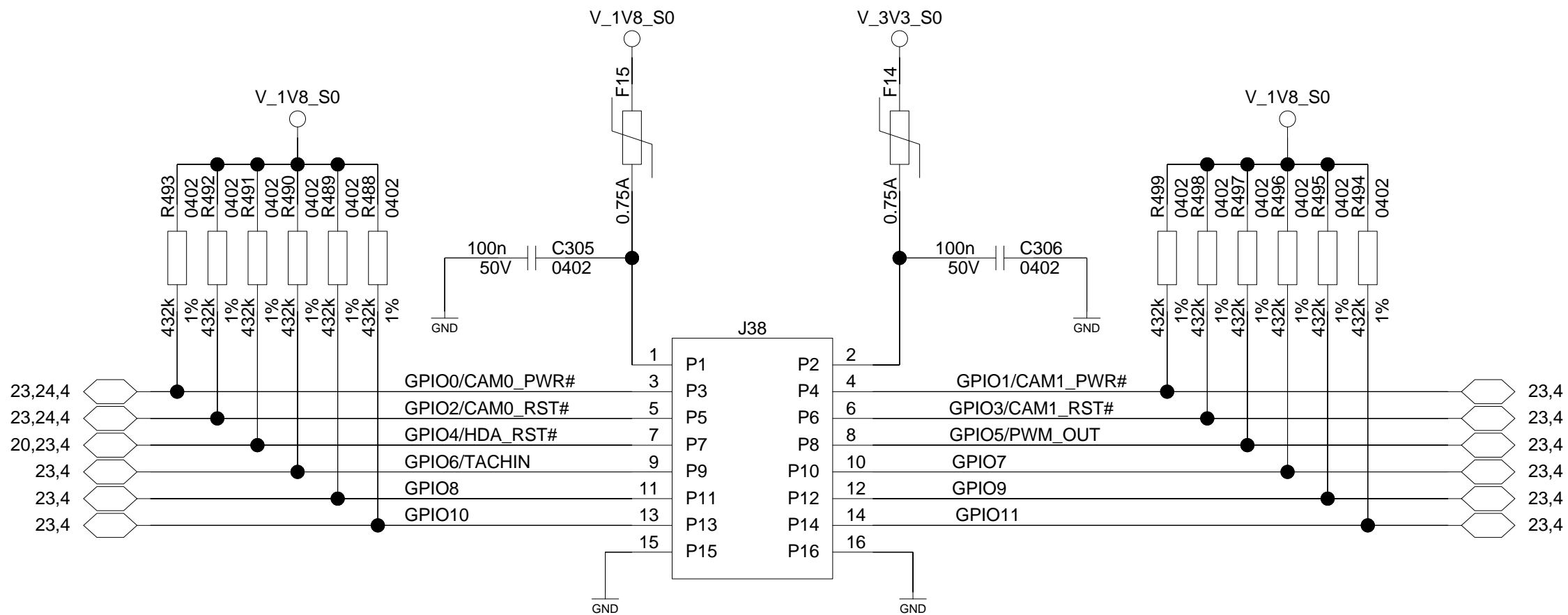
This drawing is proprietary to Kontron and may not be utilized in any means, electronic or mechanical, including photocopying and retrieval system without express written permission of Kontron.

Schematics are for reference only.  
Refer to ERP BOM and assembly instruction for build values.

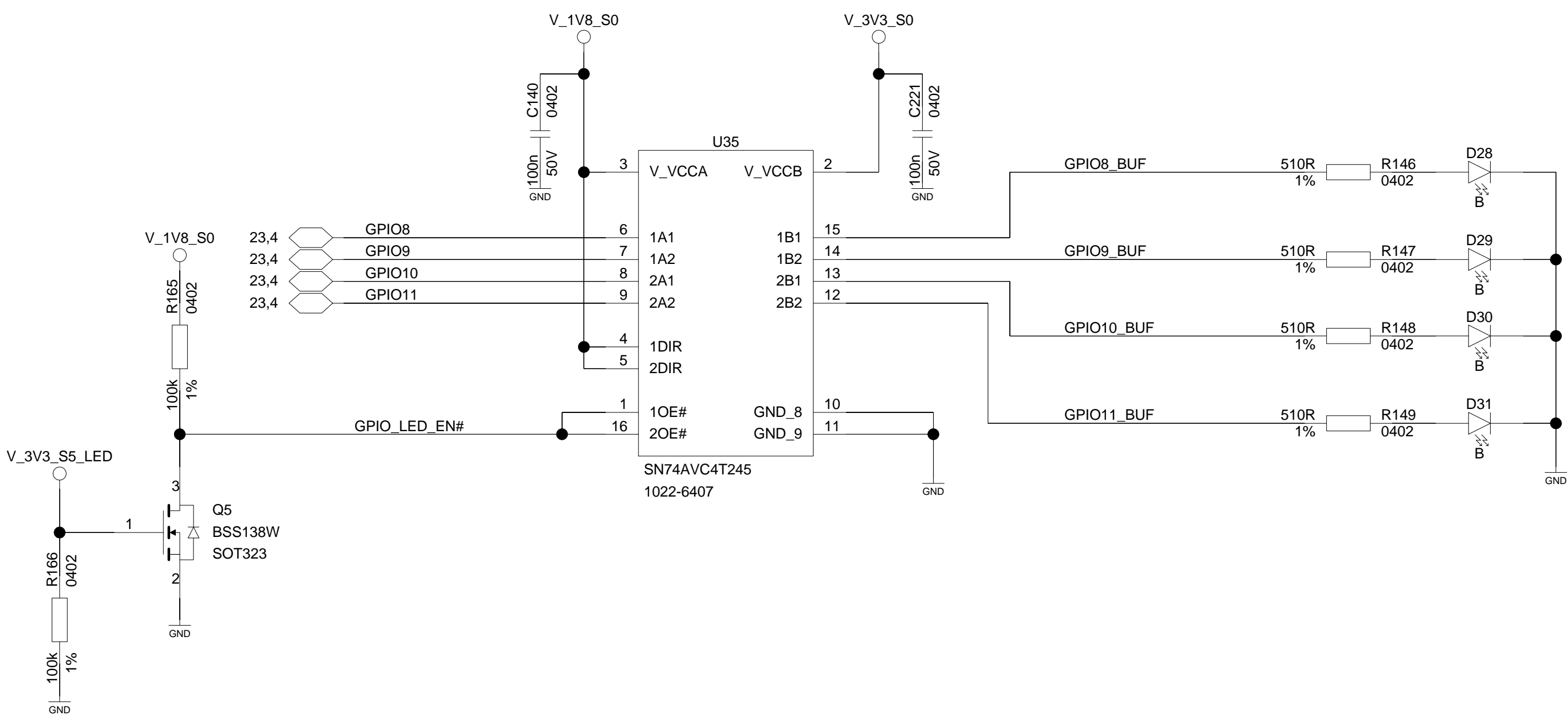
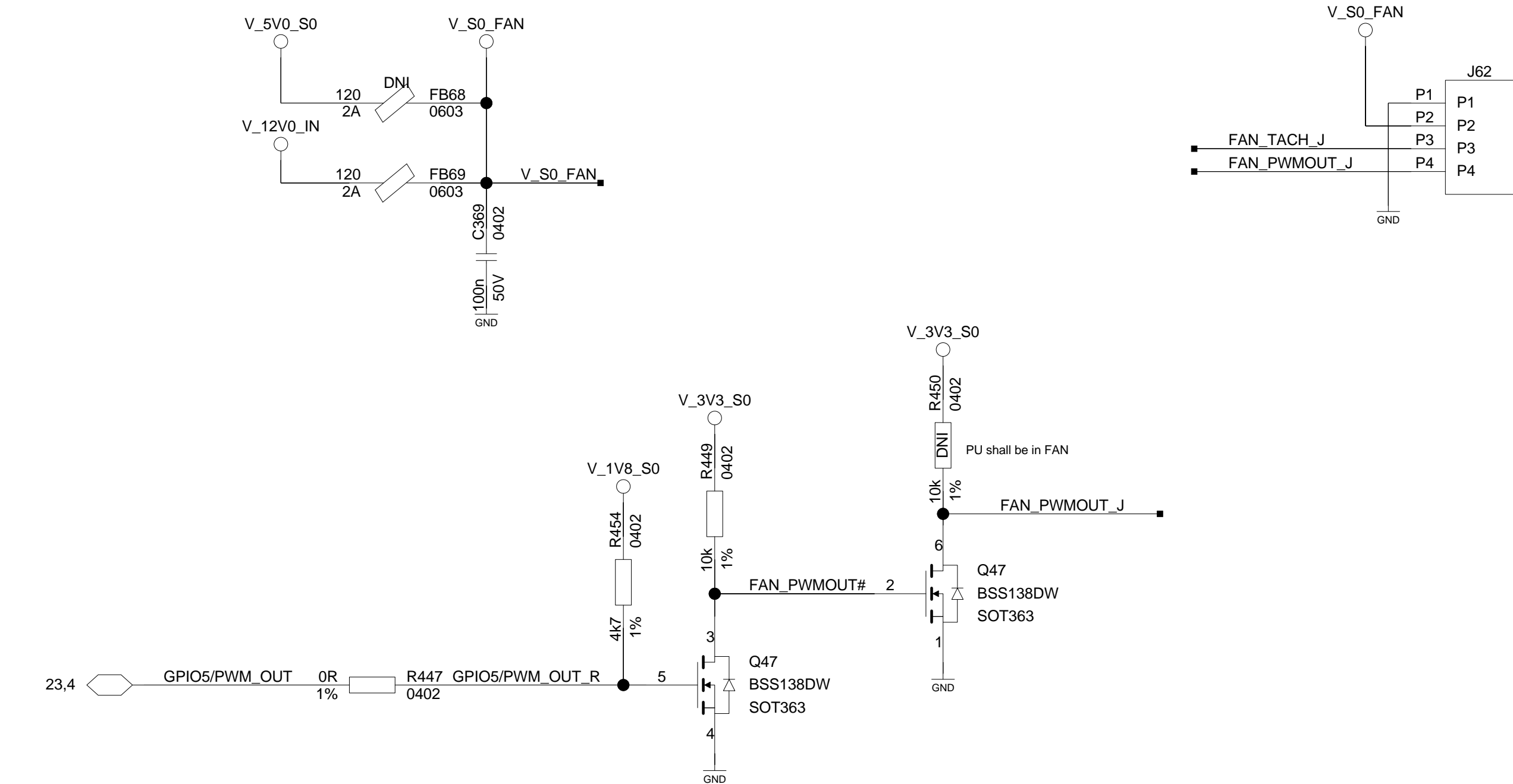
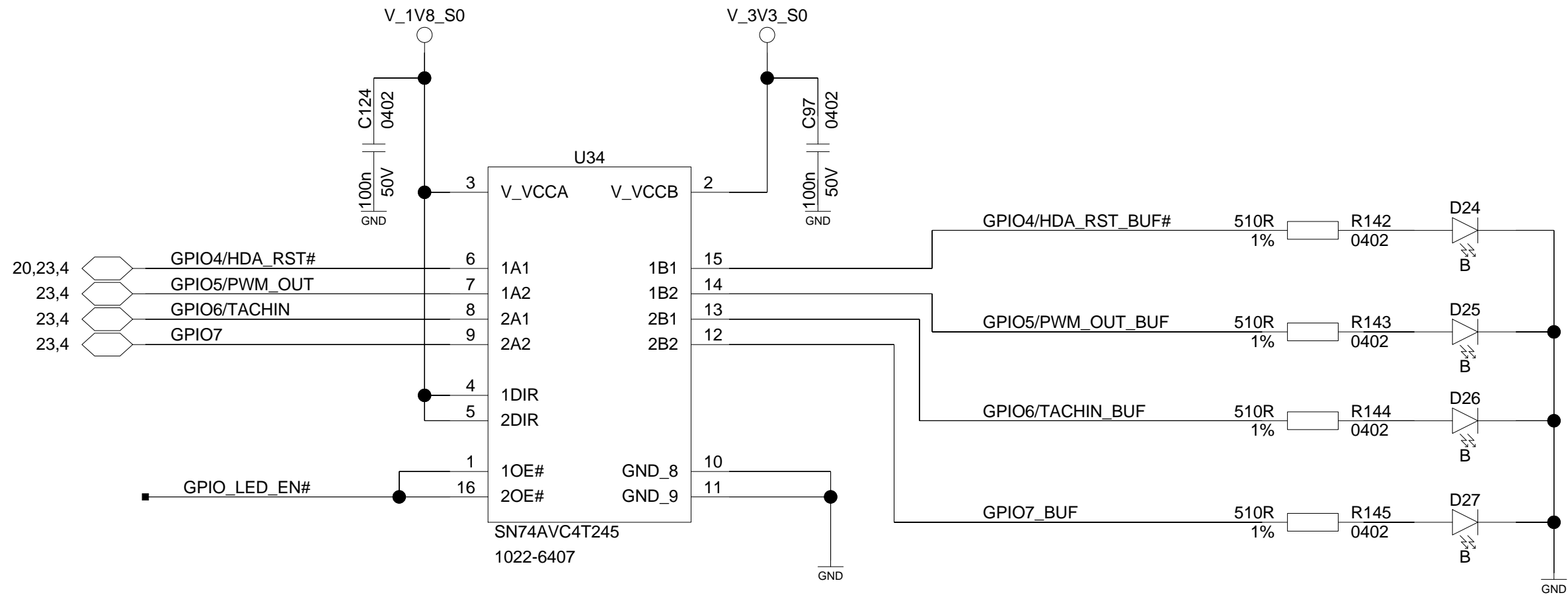
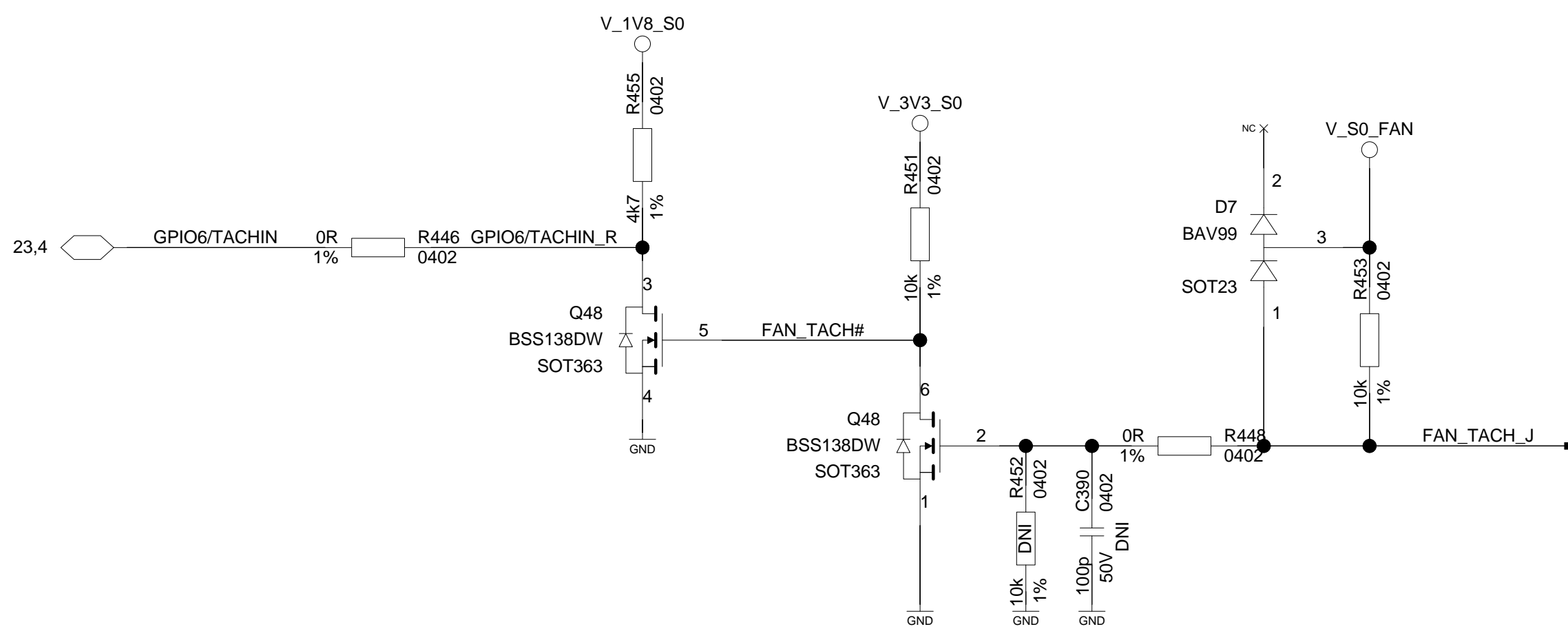
Created using CAD MGC VX 1.1



# GPIO Header

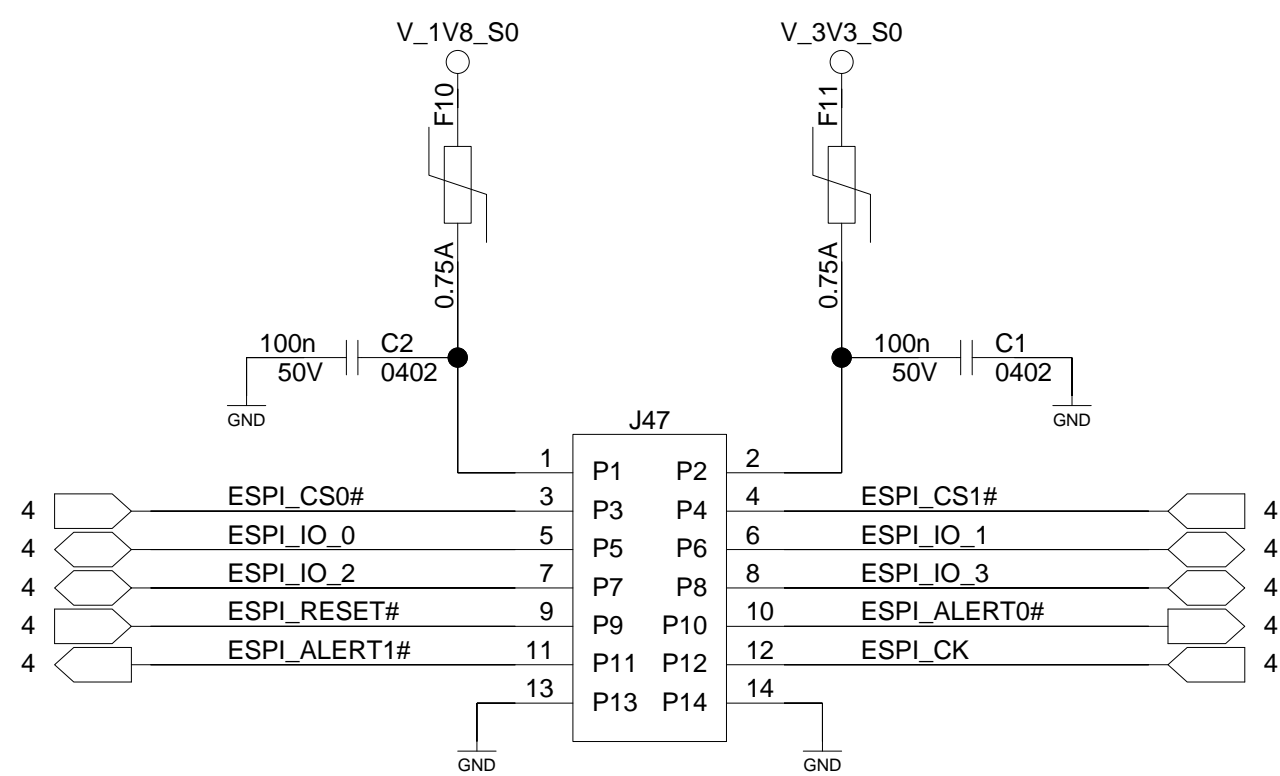


## FAN

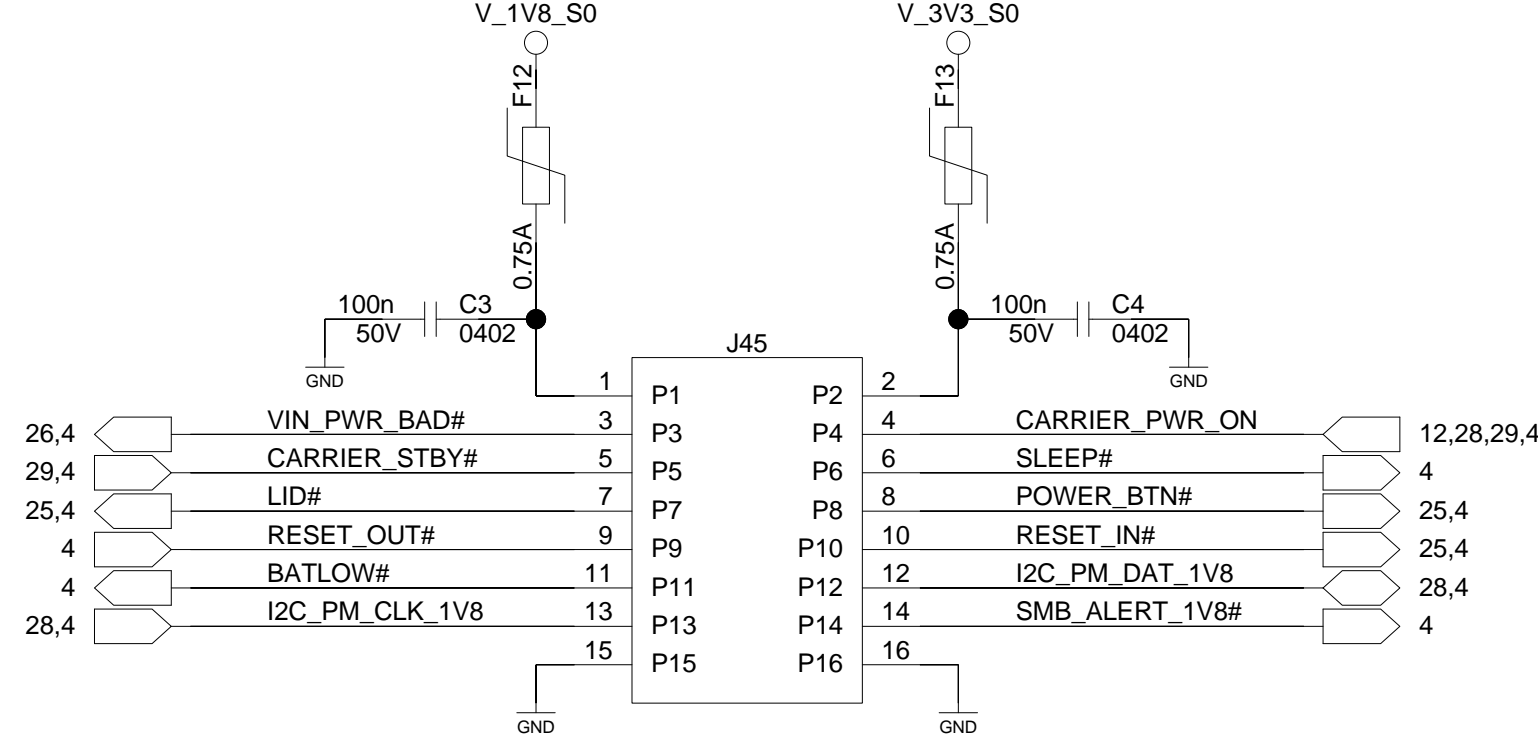


PROJECT			SMARC Eval 2.0			<div></div>											
			ADS2 - SMARC Eval 2.0														
BLOCK ID						DIVISION			NAME			DATE YYYY-MM-DD					
Schematic1 ( 23 of 30 )						CREATED:			KEEDC			JM, JH, MV			2017.11.17		
SHEET						VERIFIED:			KEEDC			MH			2017.11.20		
23 GPIO Header						APPROVED:											
PCB ID		PCB INDEX		LAST MODIFIED		PAGE			DRAWING ID			REV					
1062-0139		1400A		20/11/2017:15:03		23 OF 30			SCH 1400			D00					

eSPI Header

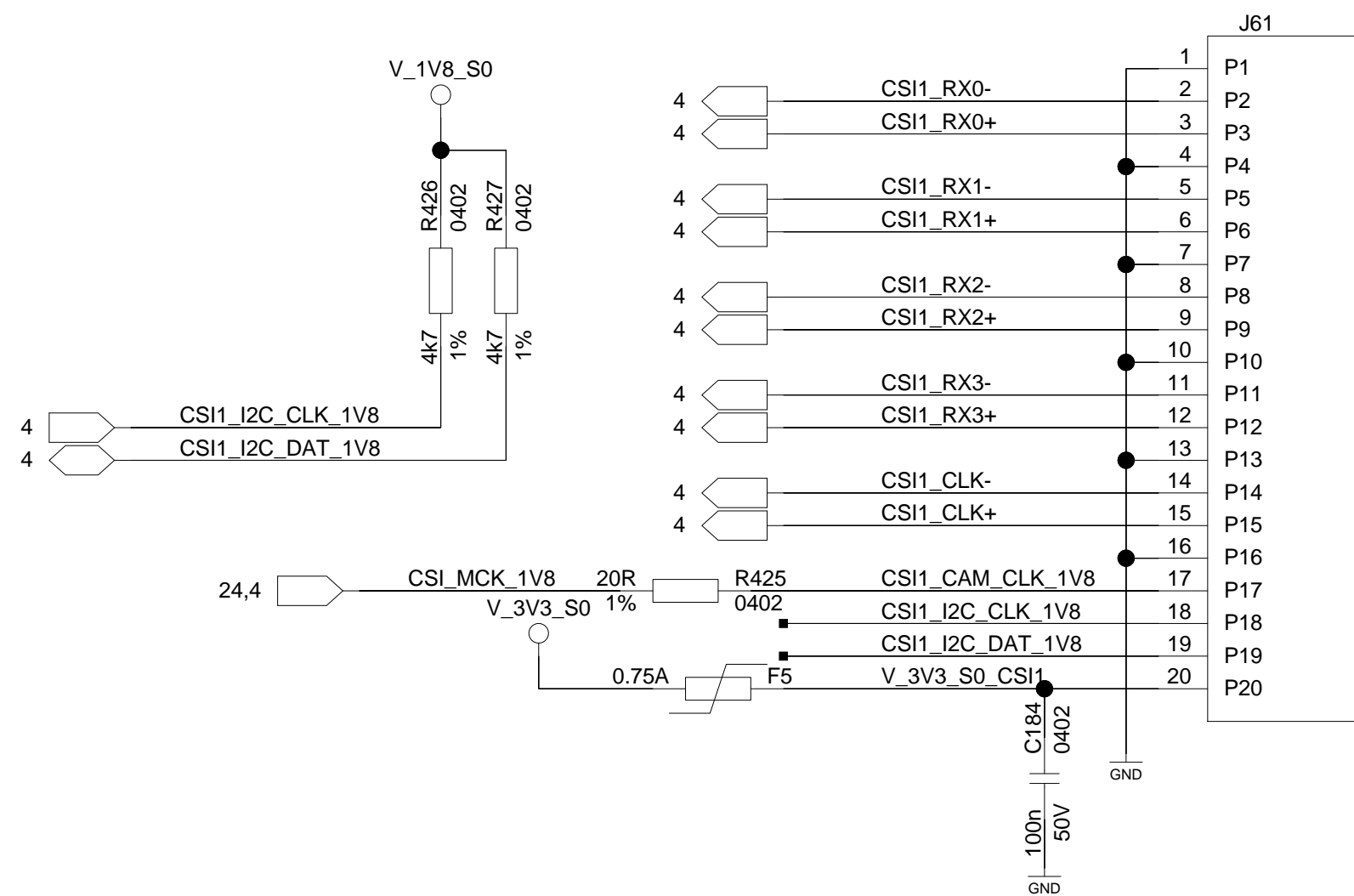


Power Management Header

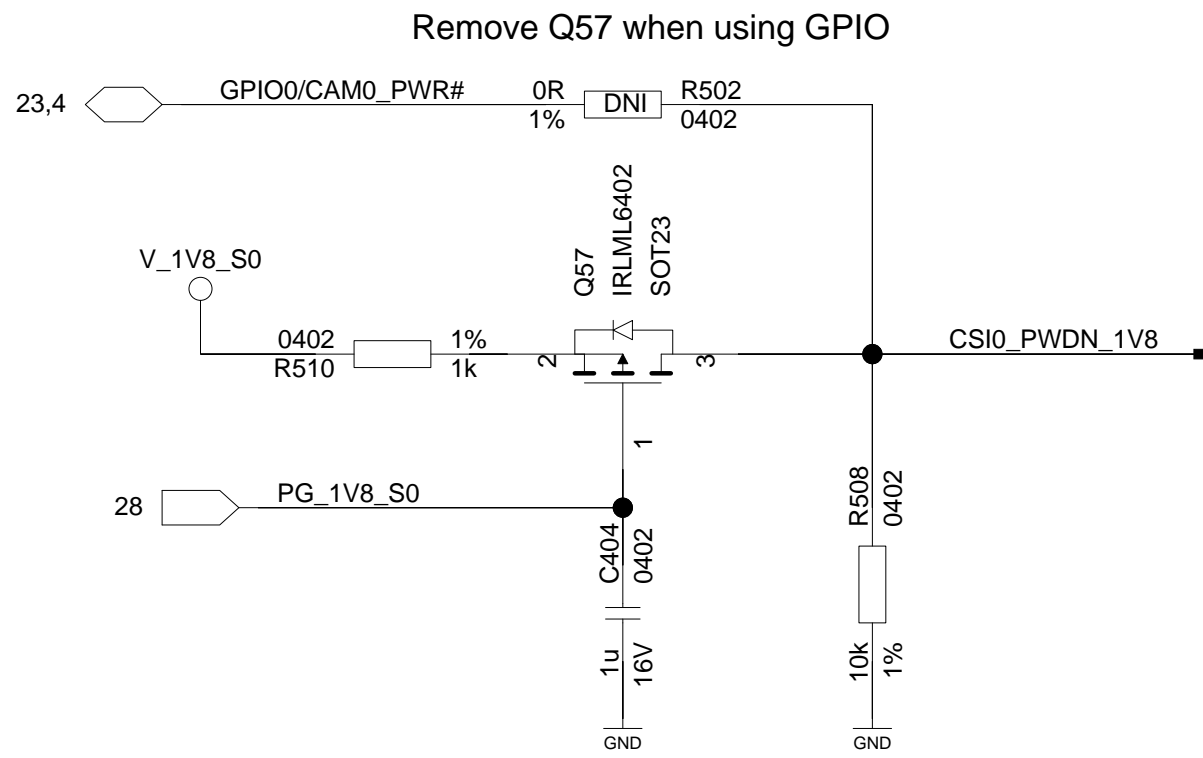
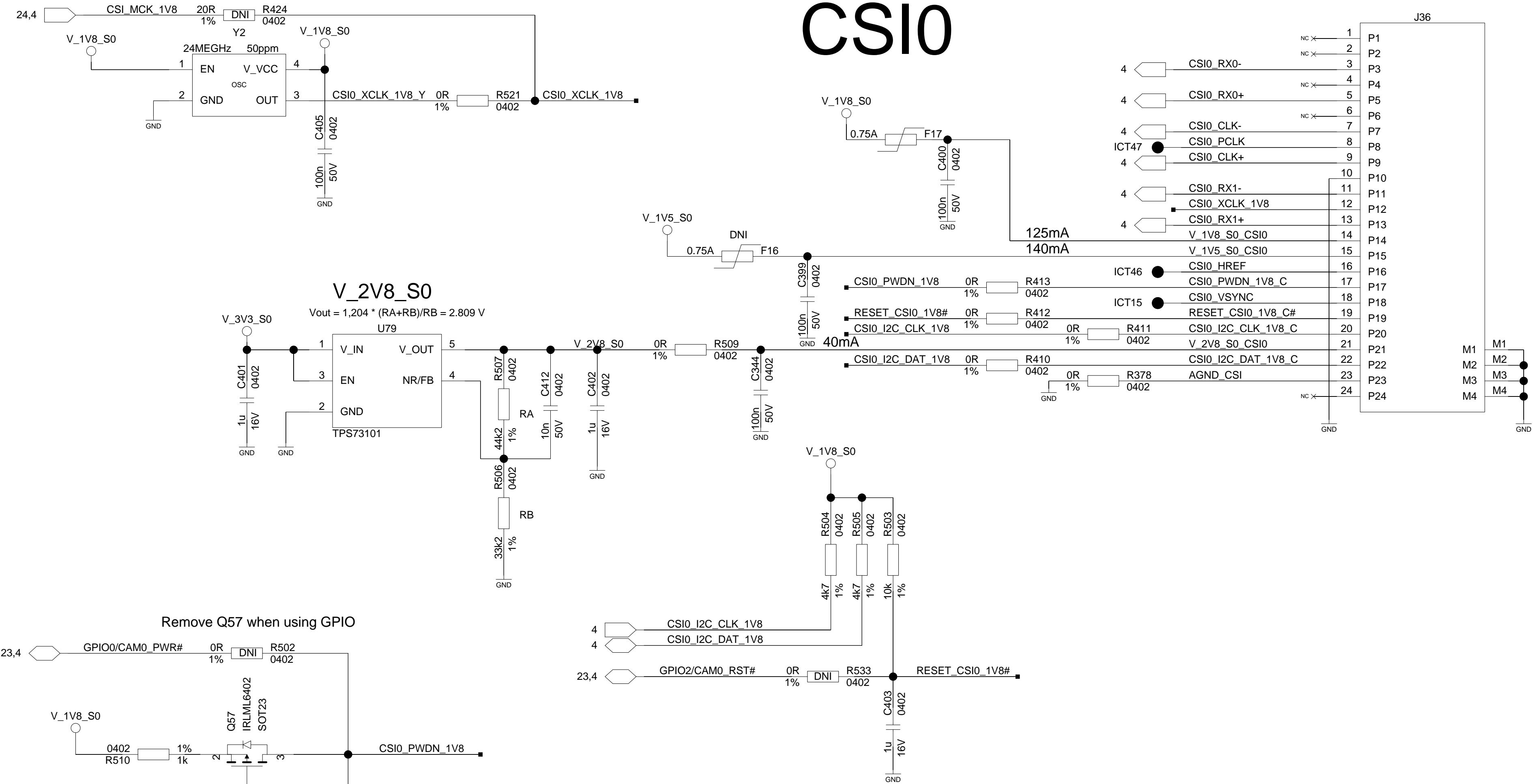


Camera Interface

CSI1



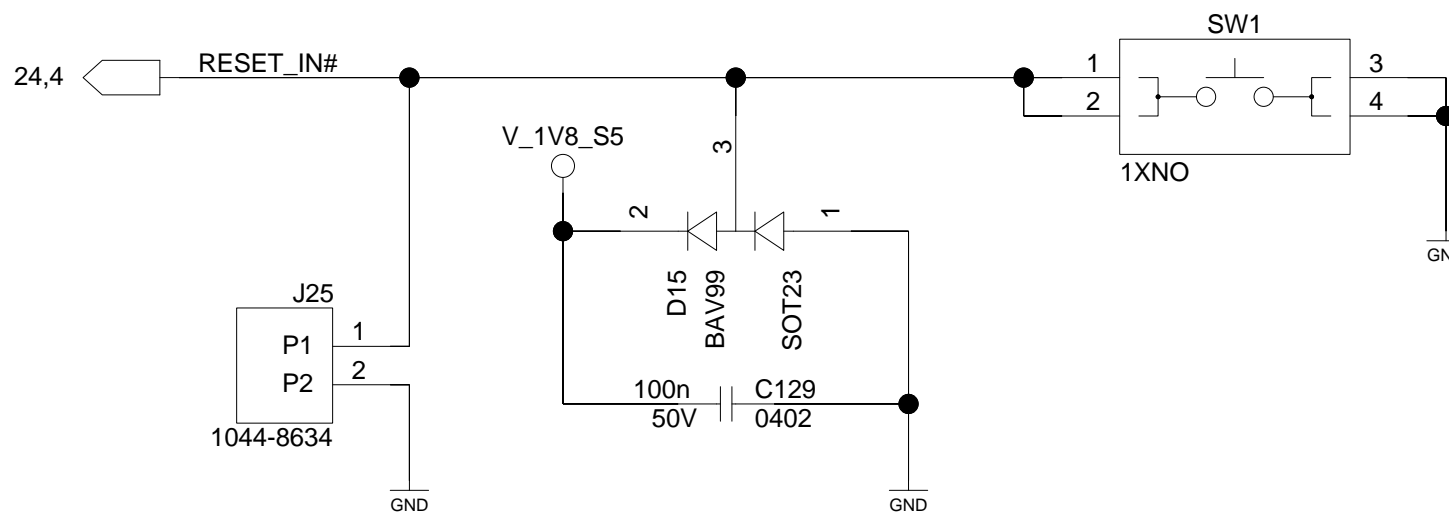
CSI0



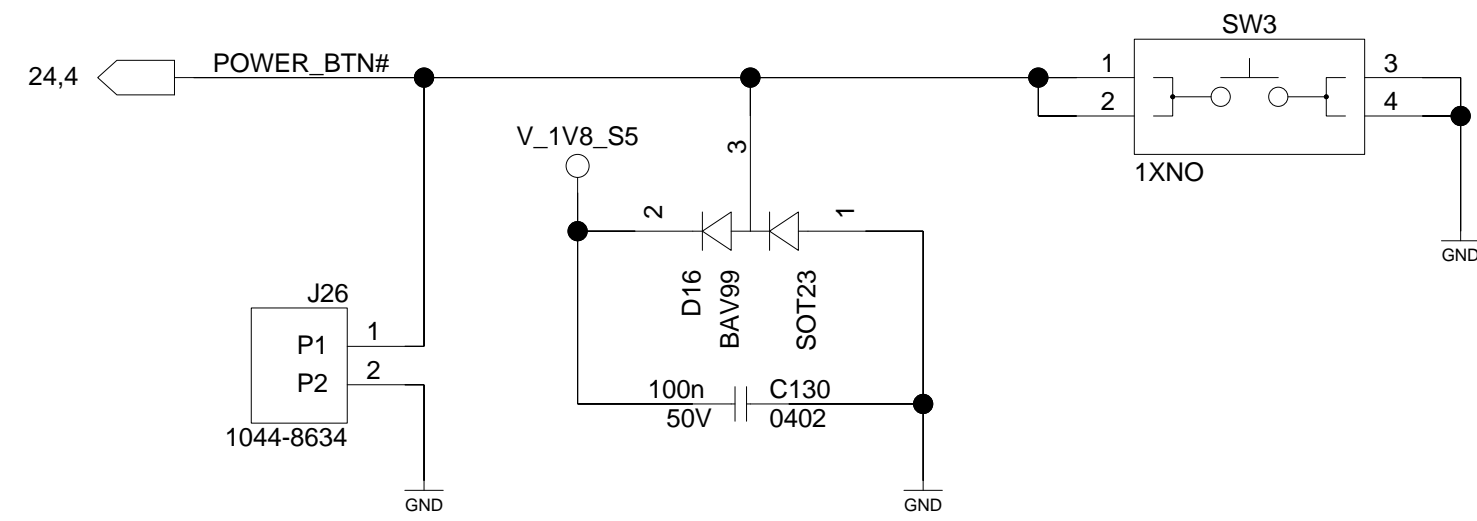
PROJECT			SMARC Eval 2.0			 <b>kontron</b>		
			ADS2 - SMARC Eval 2.0					
BLOCK ID			Schematic1 ( 24 of 30 )			DIVISION		
SHEET			24_eSPI Header Power header CSI			NAME		
PCB ID			1062-0139			DATE		
PCB INDEX			1400A			YYYY-MM-DD		
LAST MODIFIED			20/11/2017:15:03			CREATED:		
PAGE			24 OF 30			KEEDC		
DRAWING ID			SCH 1400			JM, JH ,MV		
REV			D00			MH		
						2017.11.17		
						2017.11.20		



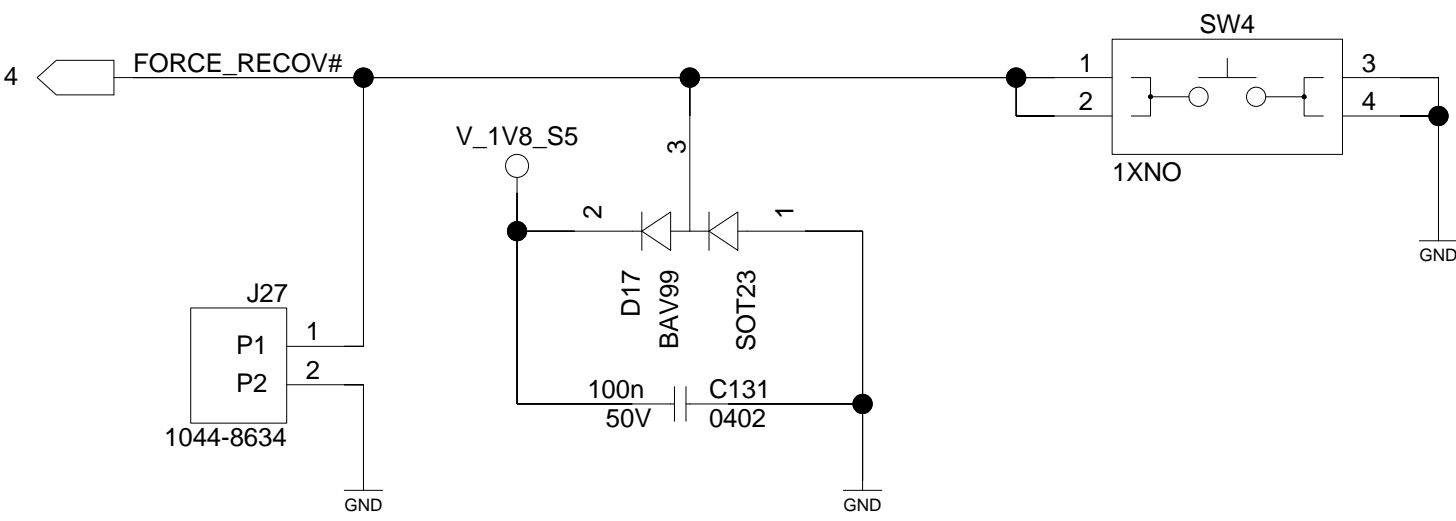
Reset



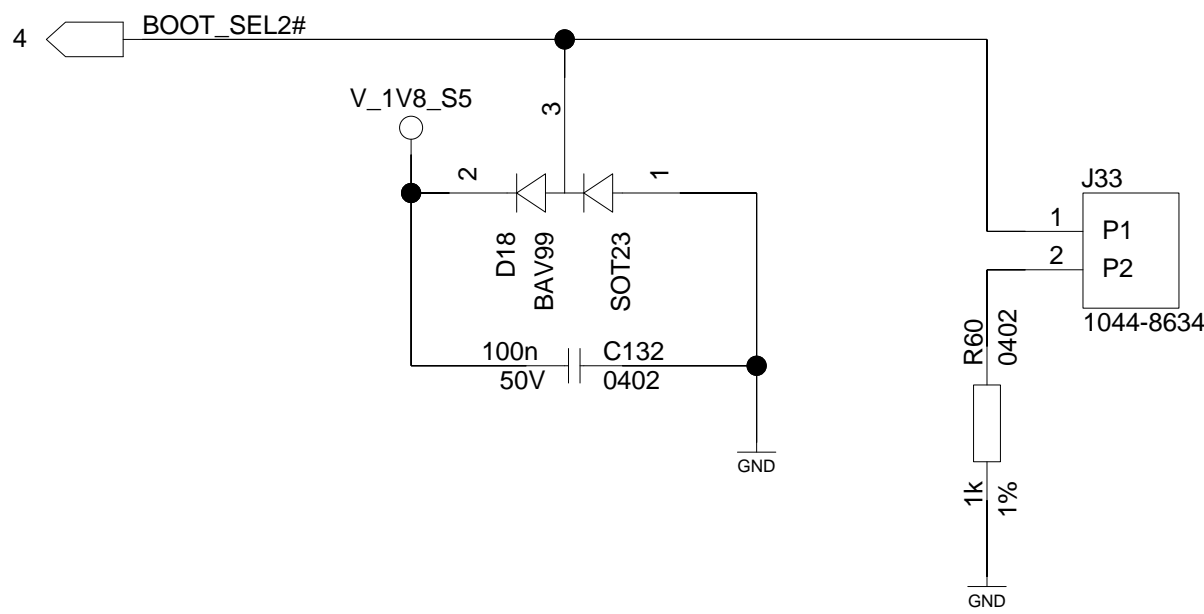
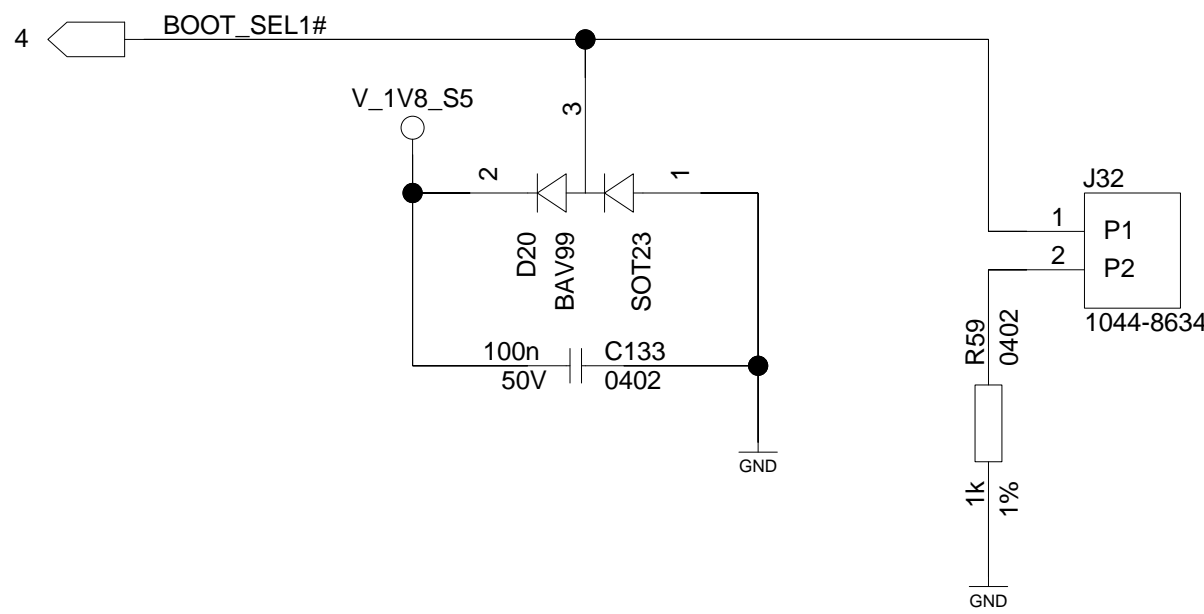
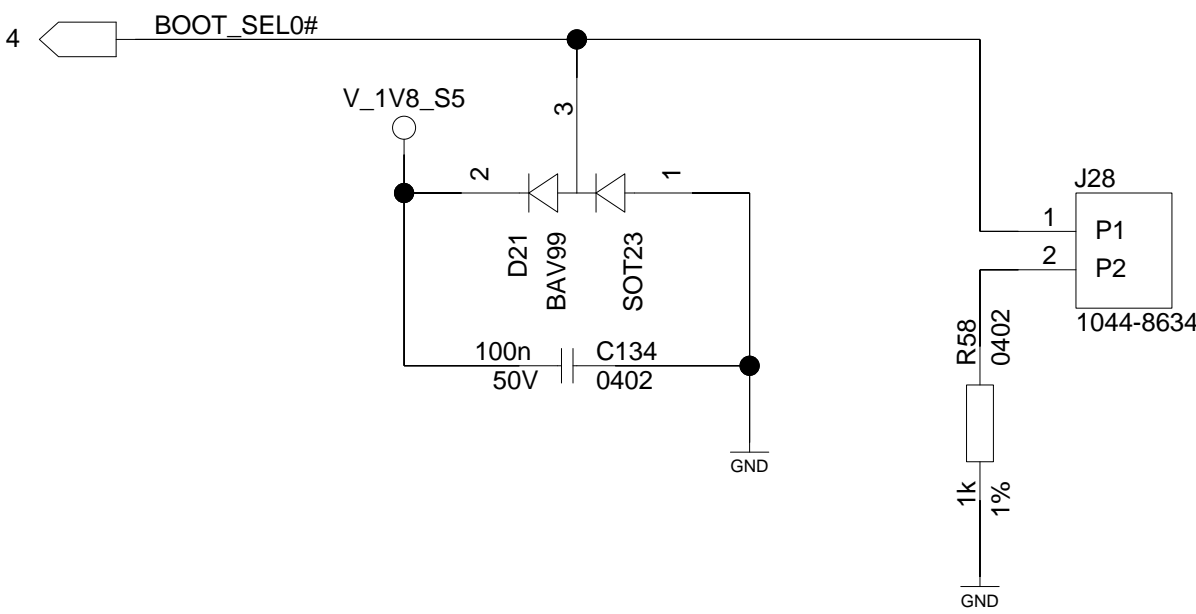
Power ON



Force Recovery

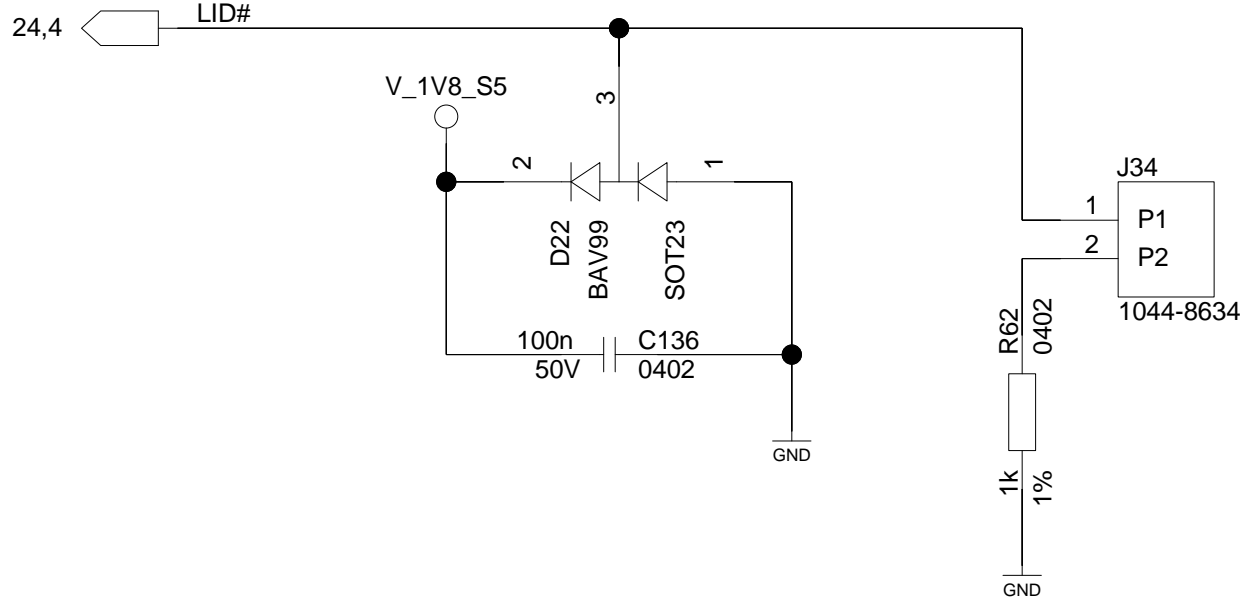


Boot Selection

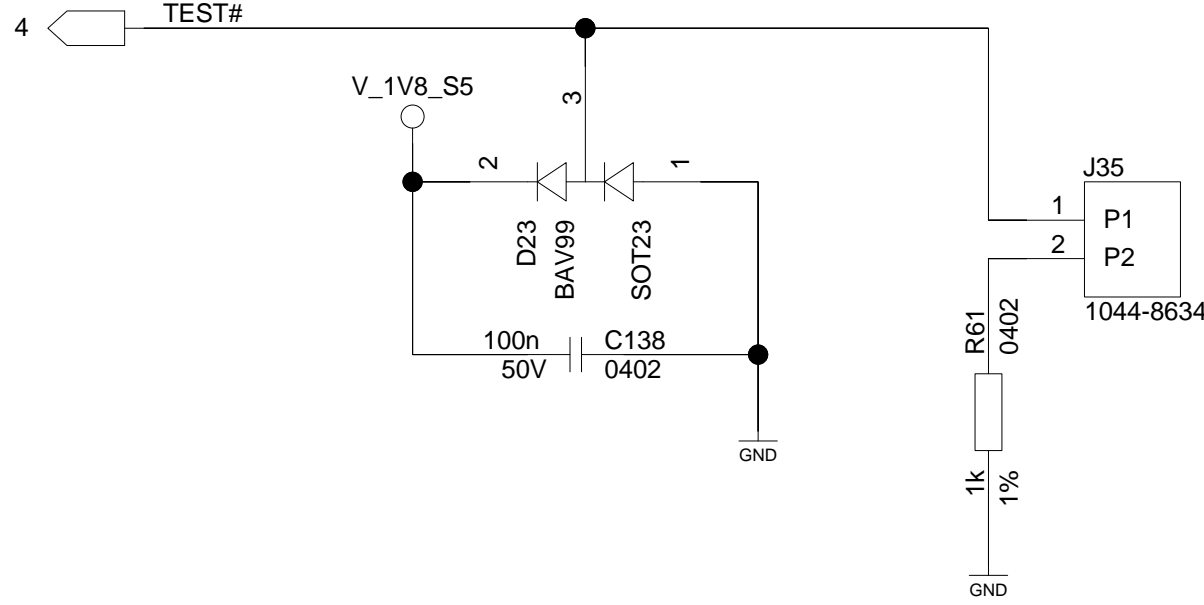


BOOT_SEL2#	BOOT_SEL1#	BOOT_SEL0#	Boot Source
GND	GND	GND	Carrier SATA
GND	GND	Float	Carrier SD Card
GND	Float	GND	Carrier eSPI (CS0#)
GND	Float	Float	Carrier SPI (CS0#)
Float	GND	GND	Module NAND/NOR Flash
Float	GND	Float	Remote boot (GBE, serial)
Float	Float	GND	Module eMMC Flash
Float	Float	Float	Module SPI

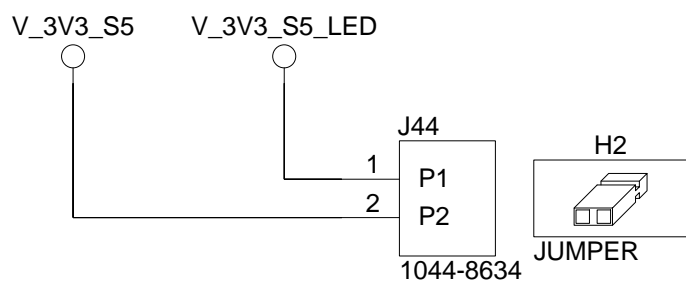
LID



TEST



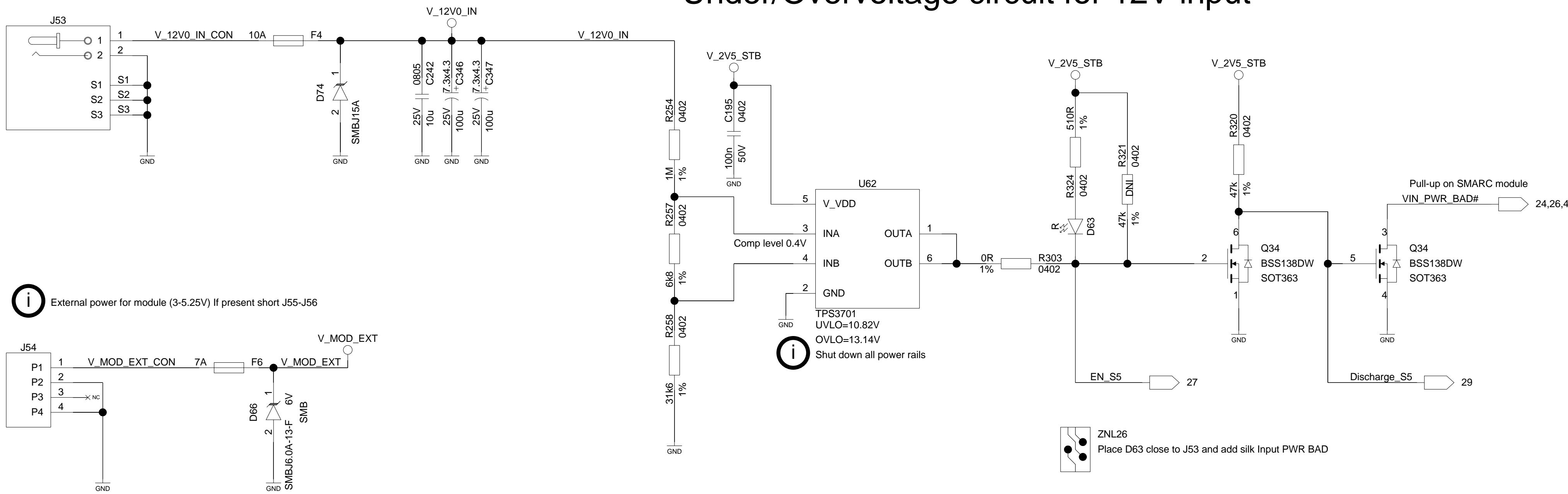
LEDs ENABLE



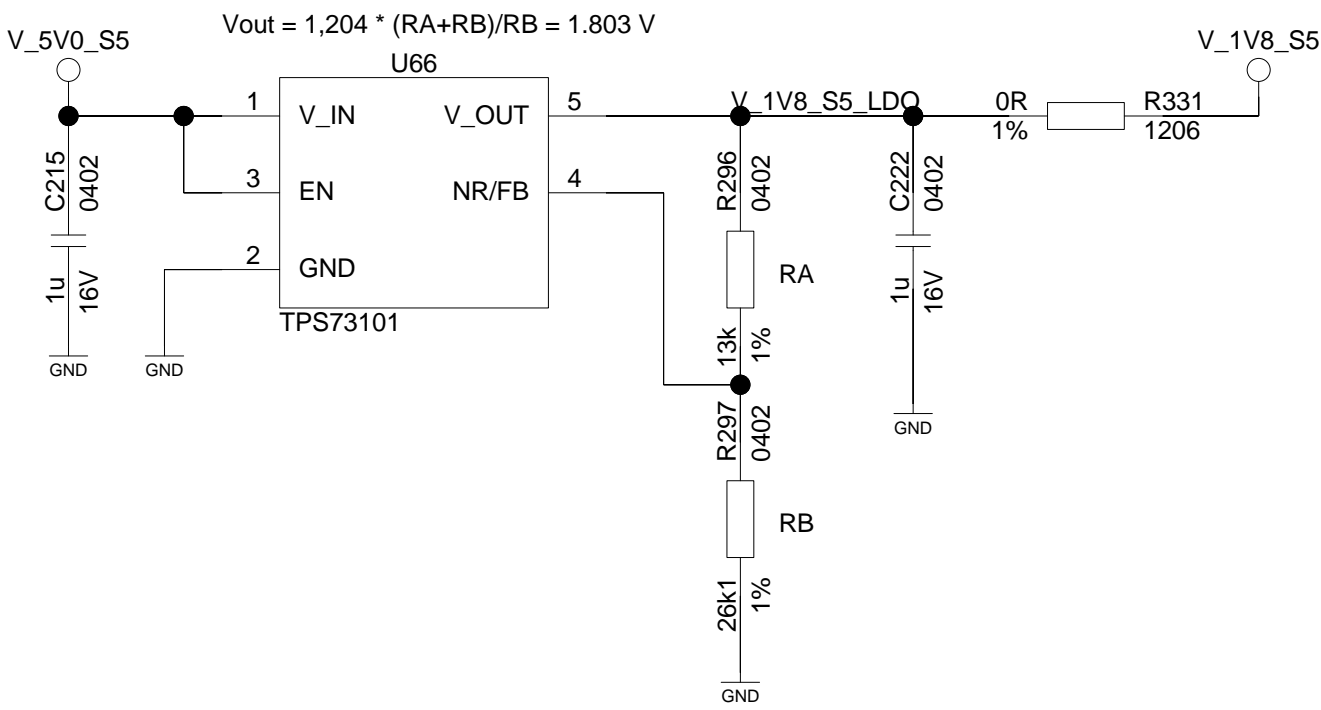
PROJECT SMARC Eval 2.0 ADS2 - SMARC Eval 2.0					
BLOCK ID Schematic1 ( 25 of 30 )			DIVISION KEEDC	NAME JM, JH ,MV	DATE YYYY-MM-DD 2017.11.17
SHEET 25 Buttons			VERIFIED: KEEDC	MH	2017.11.20
PCB ID 1062-0139			APPROVED:		
PCB INDEX 1400A	LAST MODIFIED 20/11/2017:15:03	PAGE 25 OF 30	DRAWING ID SCH 1400	REV D00	

Input Power

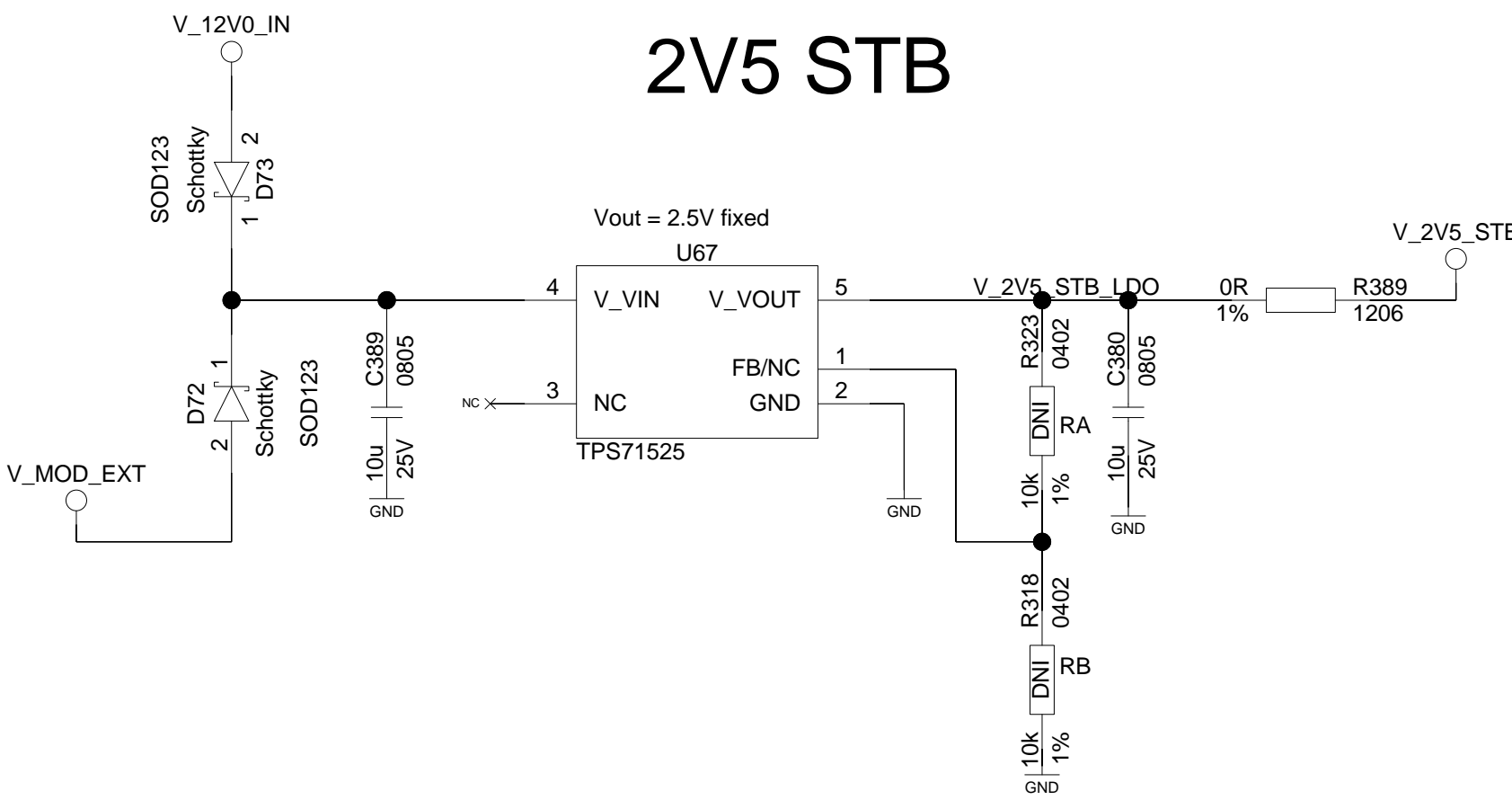
Under/Overvoltage circuit for 12V input



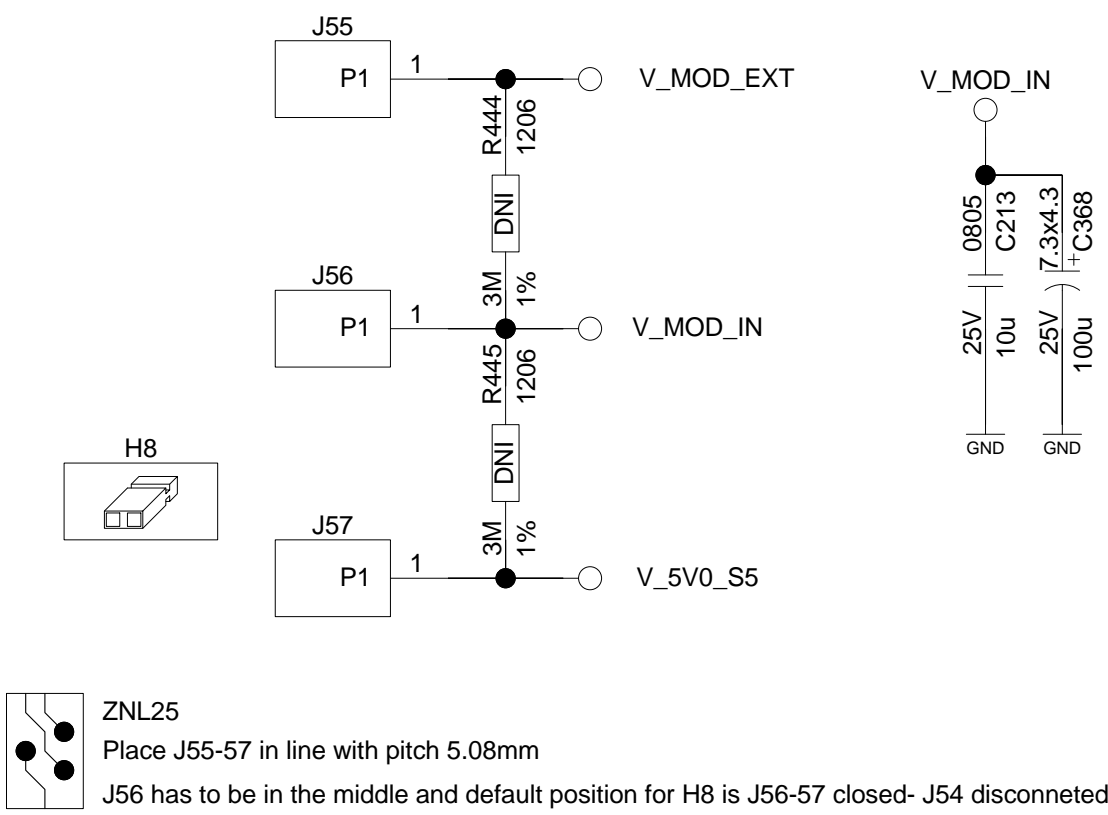
V\_1V8\_S5



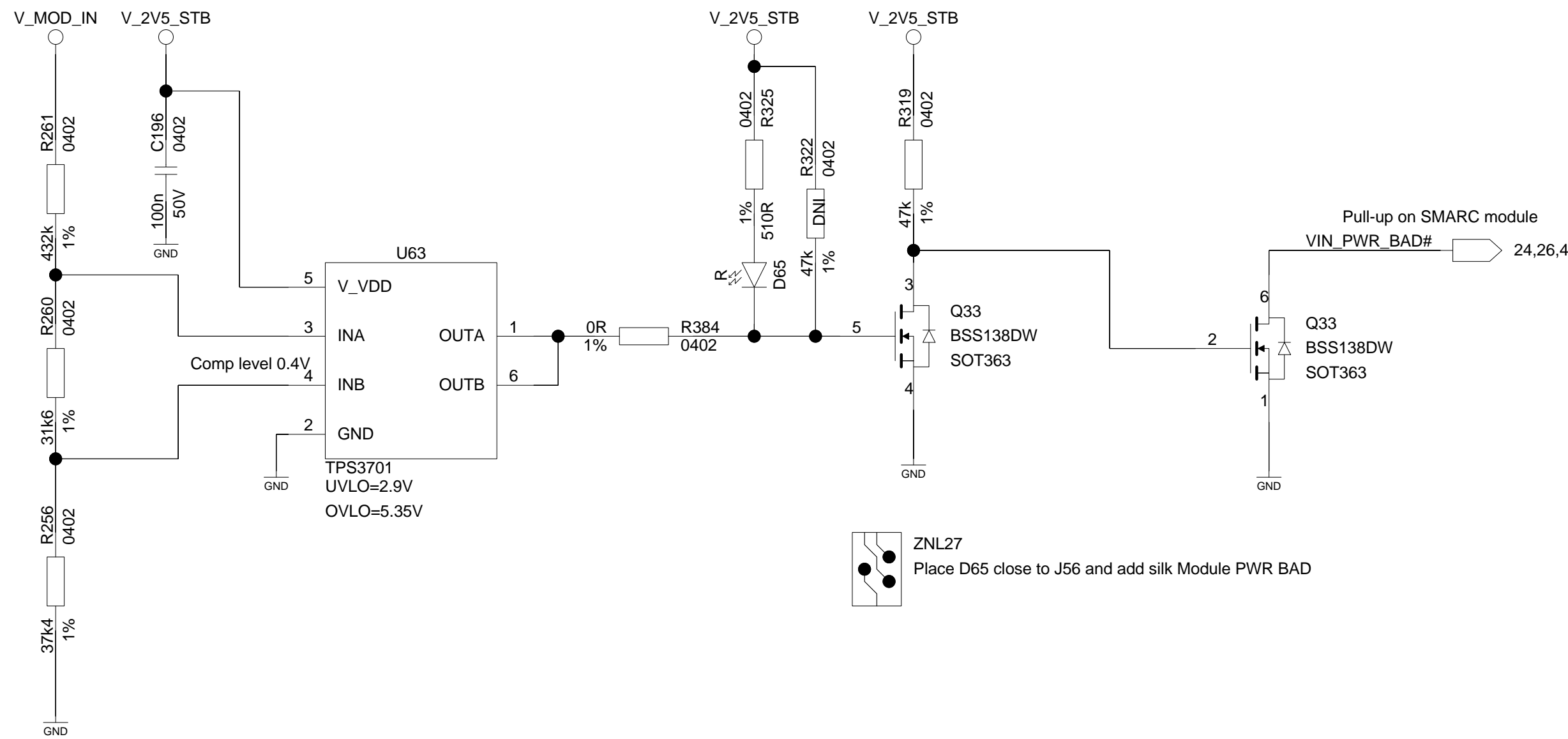
2V5 STB



SMARC mod EXT/INT power



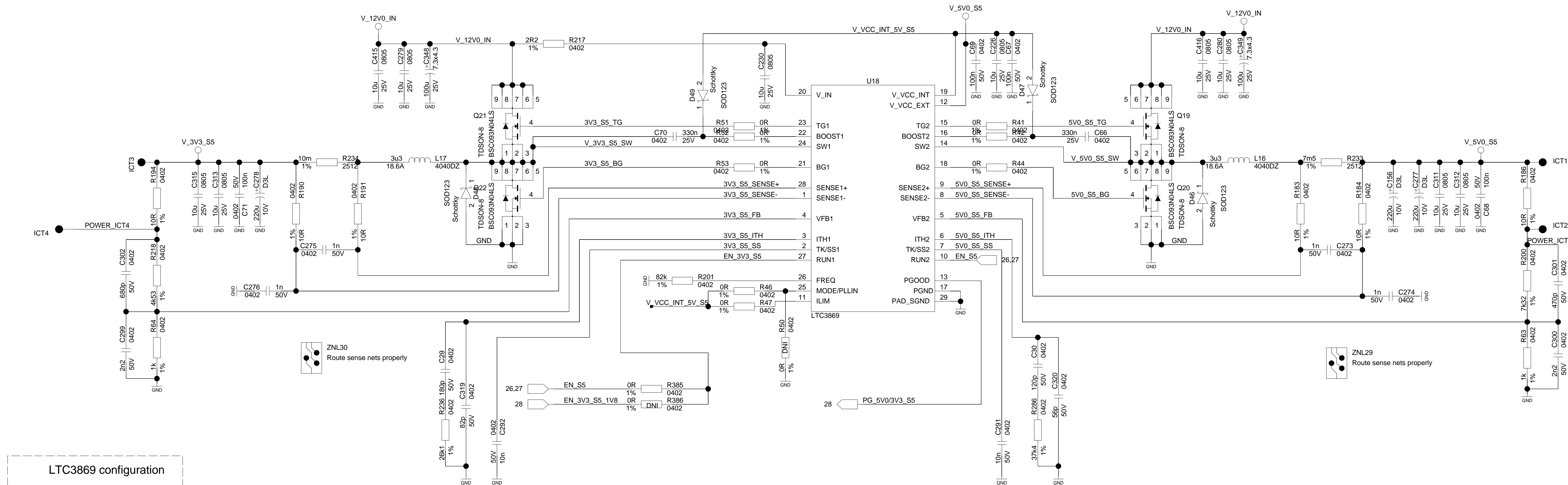
Under/Overvoltage circuit SMARC module



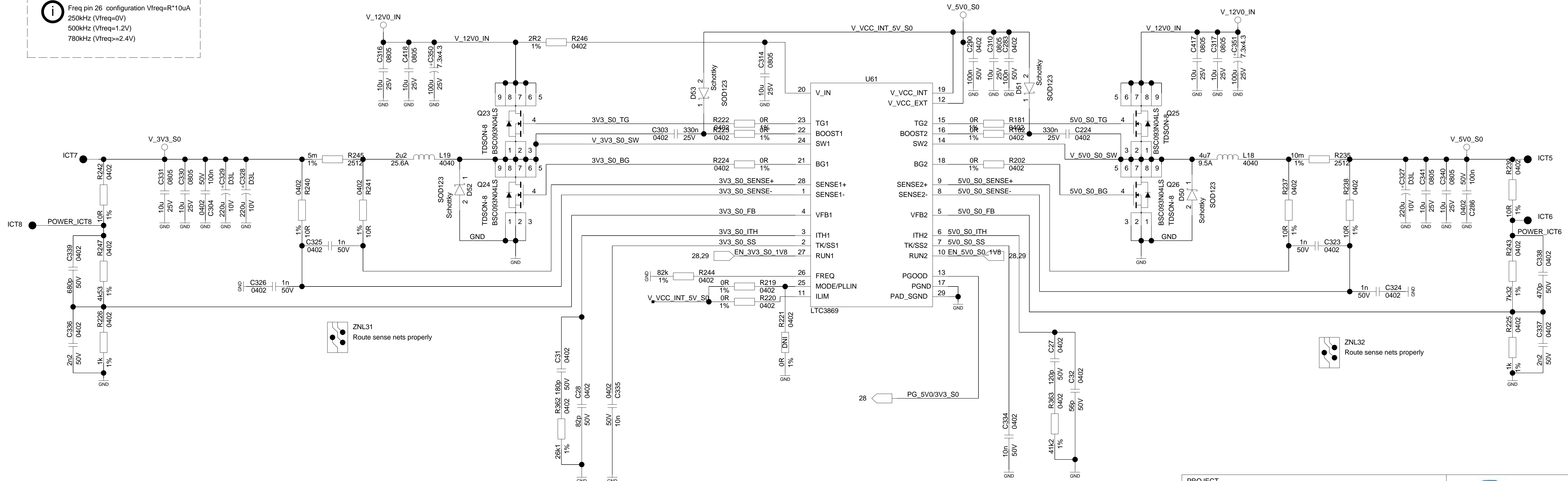
PROJECT		SMARC Eval 2.0		ADS2 - SMARC Eval 2.0			
BLOCK ID		Schematic1 ( 26 of 30 )		DIVISION		NAME	
SHEET		26 Power		CREATED:		KEEDC	
PCB ID		1062-0139		PCB INDEX		1400A	
LAST MODIFIED		20/11/2017:15:03		DIVISION		NAME	
PAGE		26 OF 30		VERIFIED:		KEEDC	
DRAWING ID		SCH 1400		DATE		YYYY-MM-DD	
REV		D00		2017.11.17		2017.11.20	



## 5V0\_S5 and 3V3\_S5



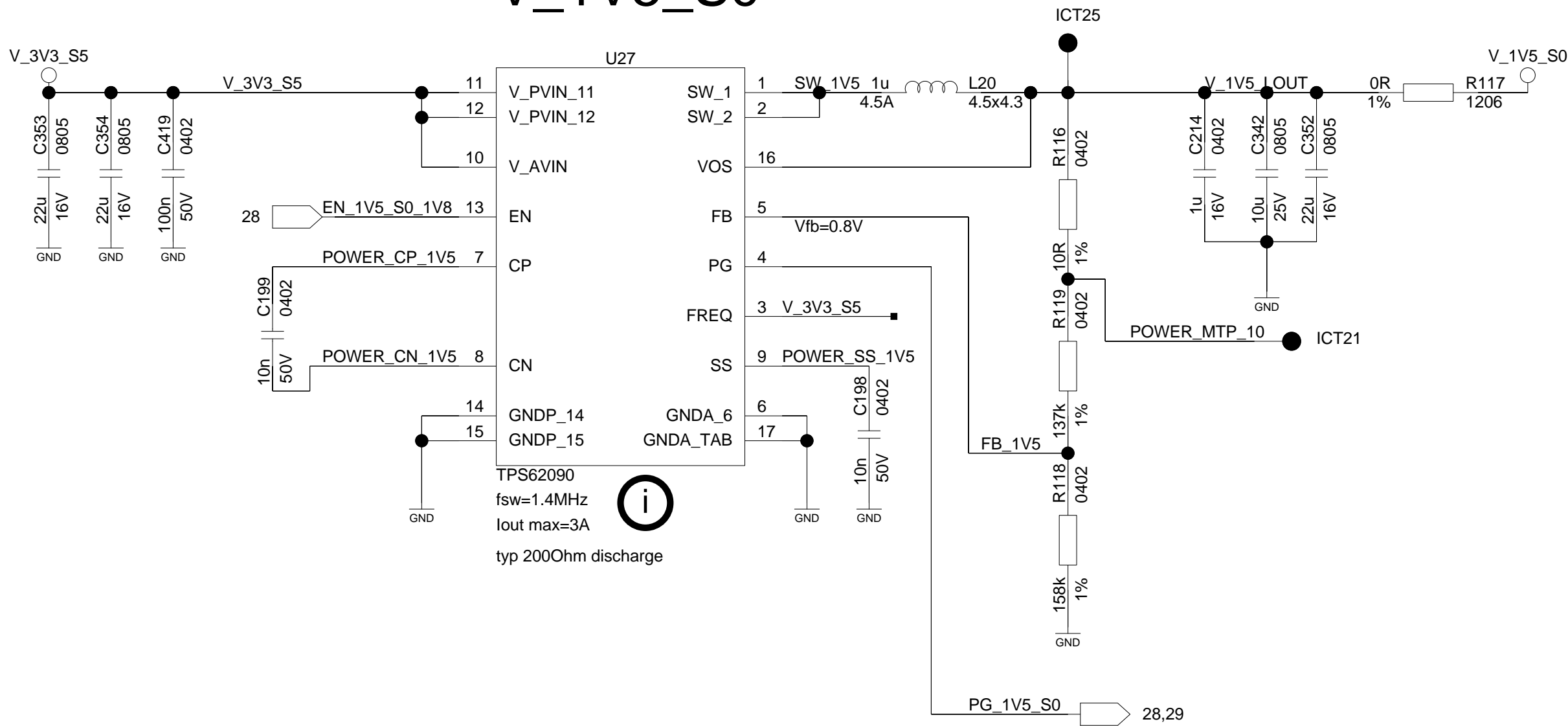
## 5V0\_S0 and 3V3 S0



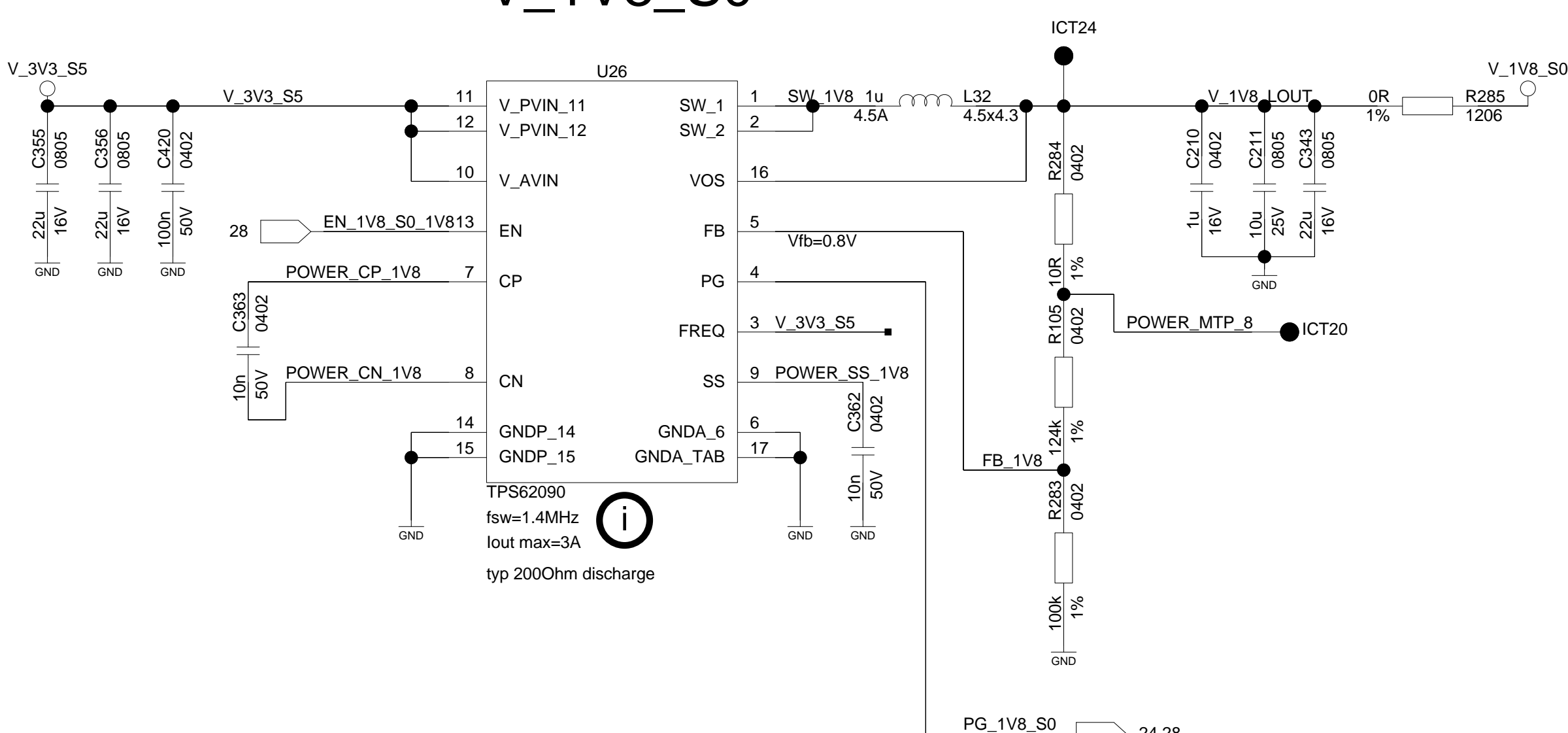
PROJECT		SMARC Eval 2.0		 <b>kontron</b>			
		ADS2 - SMARC Eval 2.0					
BLOCK ID				DIVISION	NAME		
Schematic1 ( 27 of 30 )				DATE	YYYY-MM-DD		
				CREATED:	KEEDC	JM, JH ,MV	2017.11.17
				VERIFIED:	KEEDC	MH	2017.11.20
SHEET				APPROVED:			
27 Power							
PCB ID	PCB INDEX	LAST MODIFIED		PAGE	DRAWING ID		
1062-0139	1400A	20/11/2017:15:03		27 OF 30	SCH 1400		
					REV		
					D00		

# 1V8 and 1V5 S0, PM GPIO

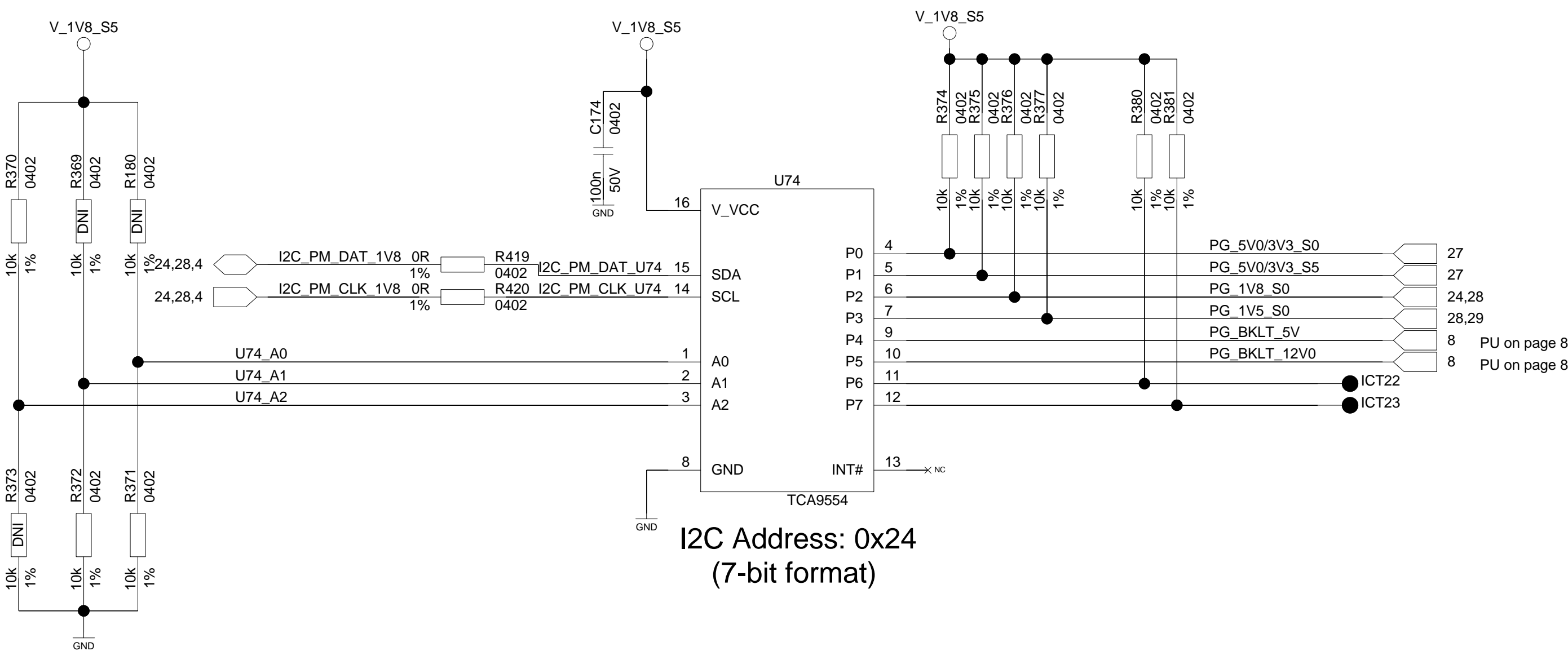
V\_1V5\_S0



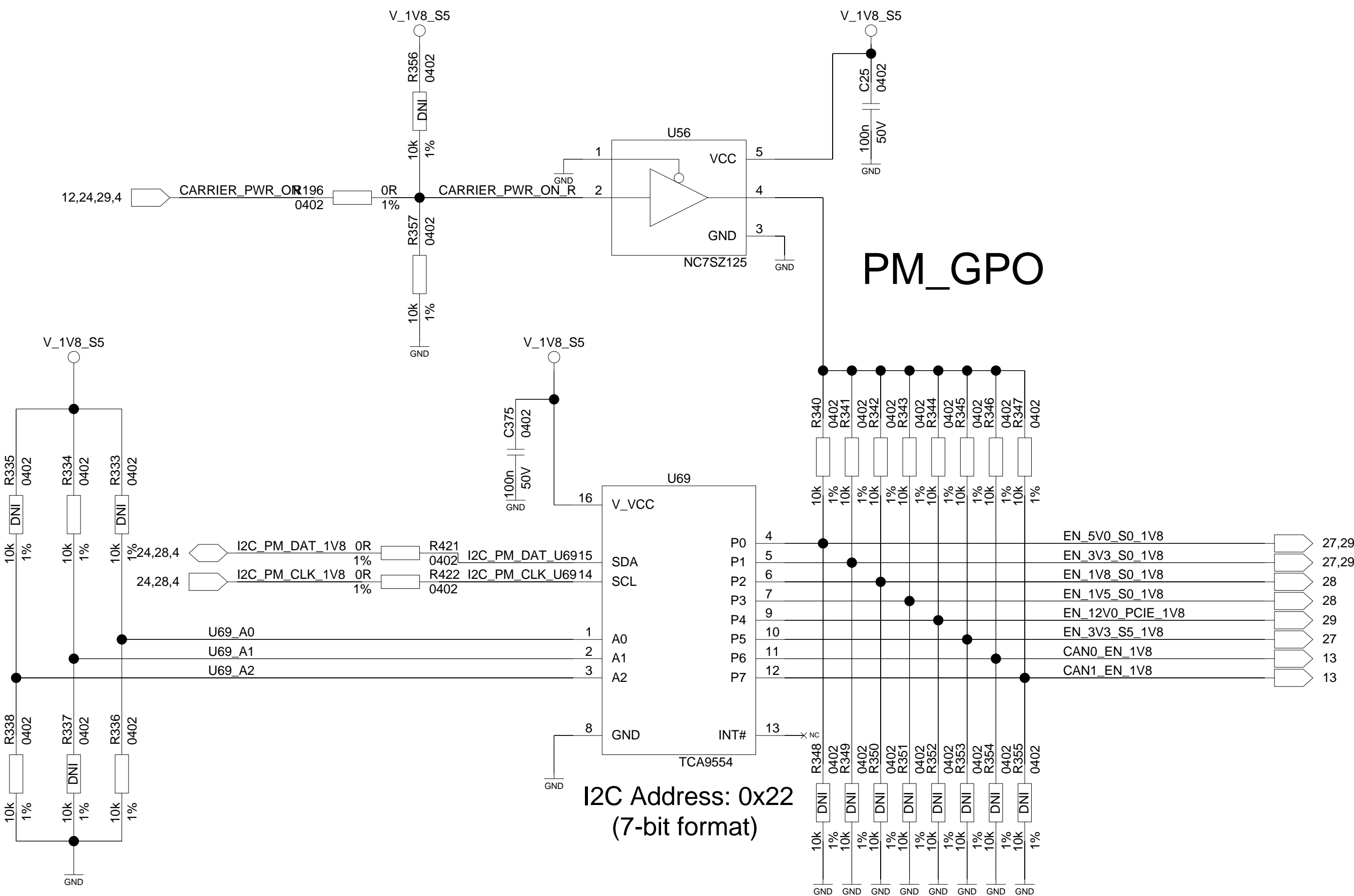
V\_1V8\_S0



PM\_GPI



PM\_GPO

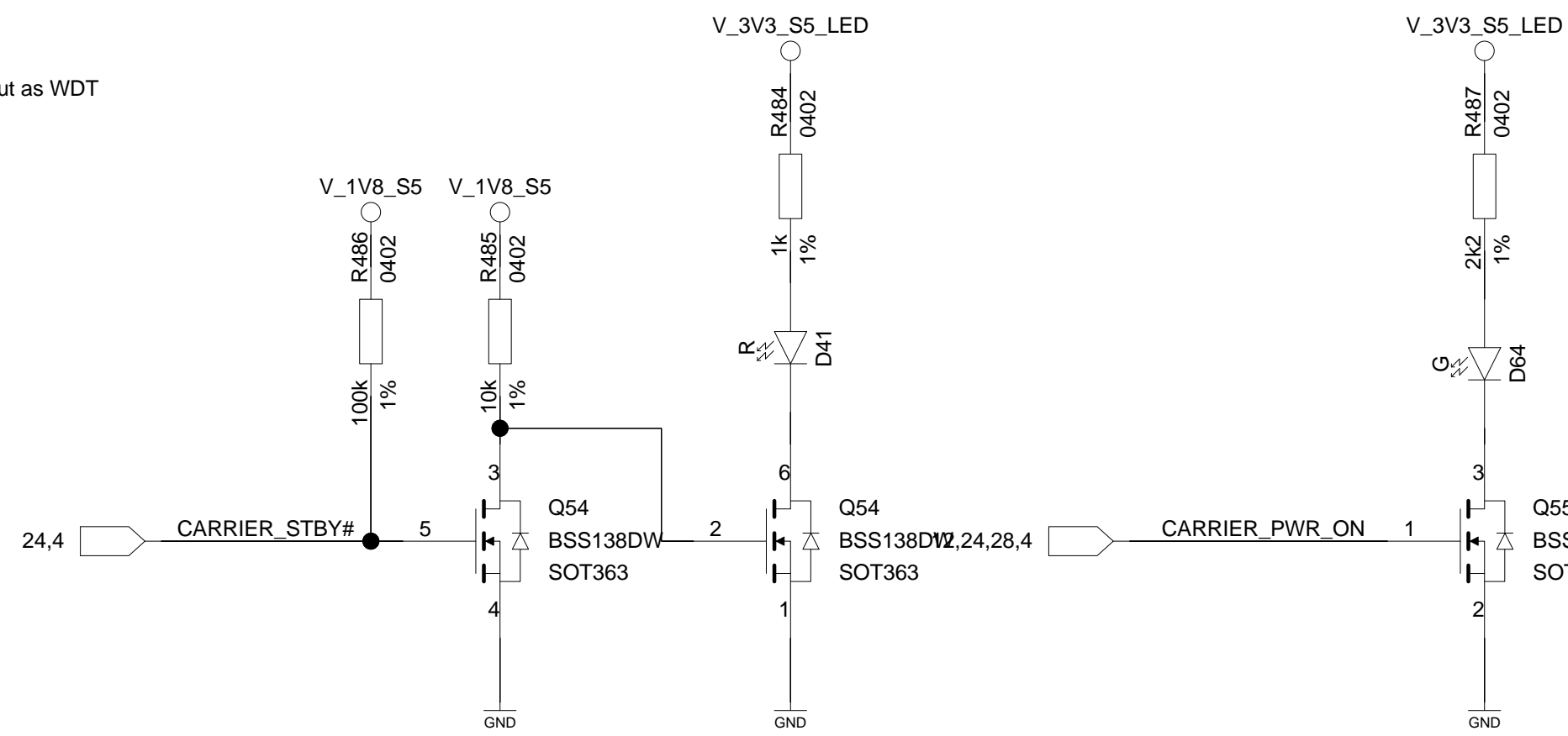
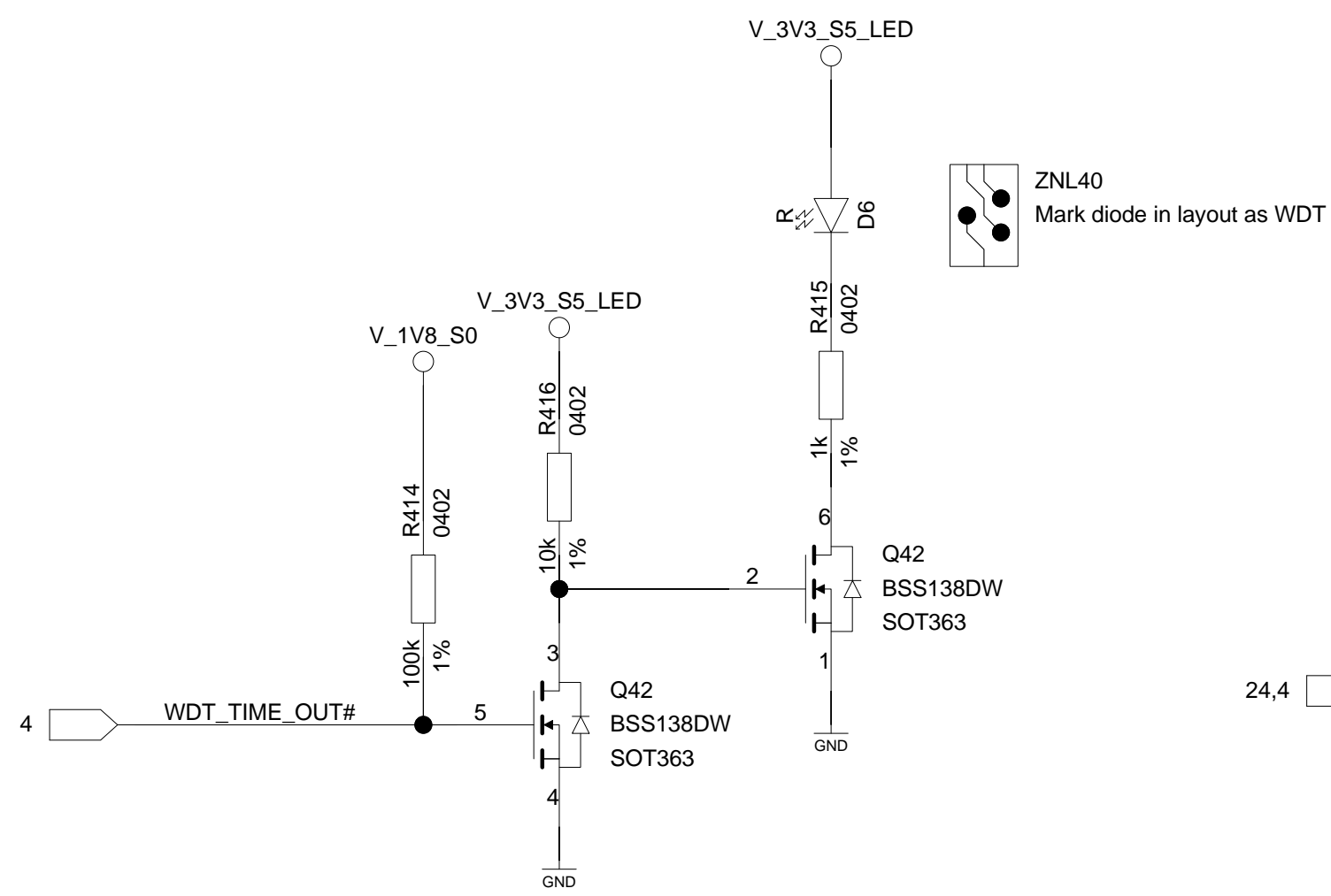


PROJECT			SMARC Eval 2.0			 <b>kontron</b>		
			ADS2 - SMARC Eval 2.0					
BLOCK ID						DIVISION	NAME	DATE YYYY-MM-DD
Schematic1 ( 28 of 30 )						CREATED:	KEEDC JM, JH, MV	2017.11.17
SHEET						VERIFIED:	KEEDC MH	2017.11.20
28 Power						APPROVED:		
PCB ID		PCB INDEX	LAST MODIFIED			PAGE	DRAWING ID	REV
1062-0139		1400A	20/11/2017:15:03			28 OF 30	SCH 1400	D00

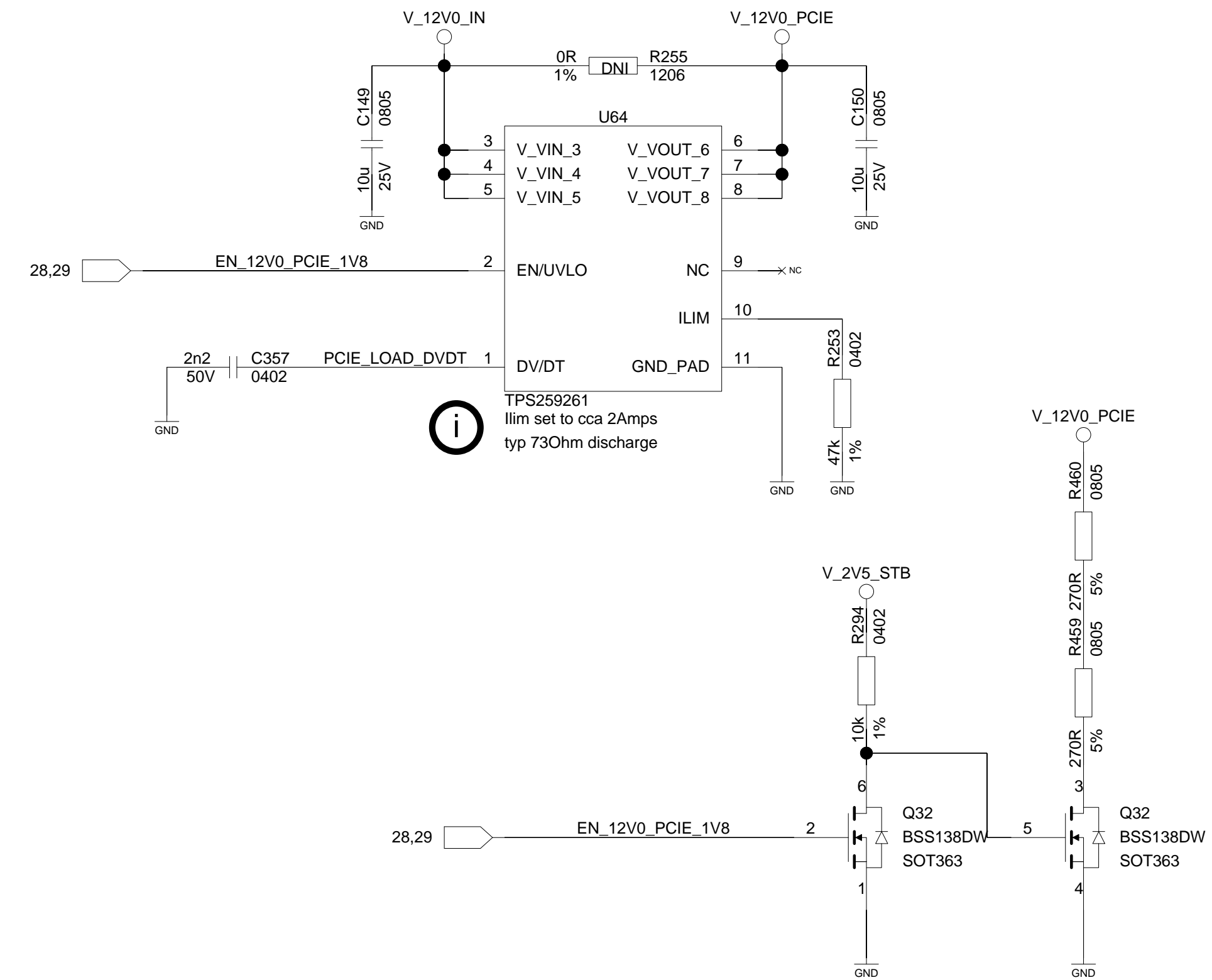


# LEDs, Discharge, RTC

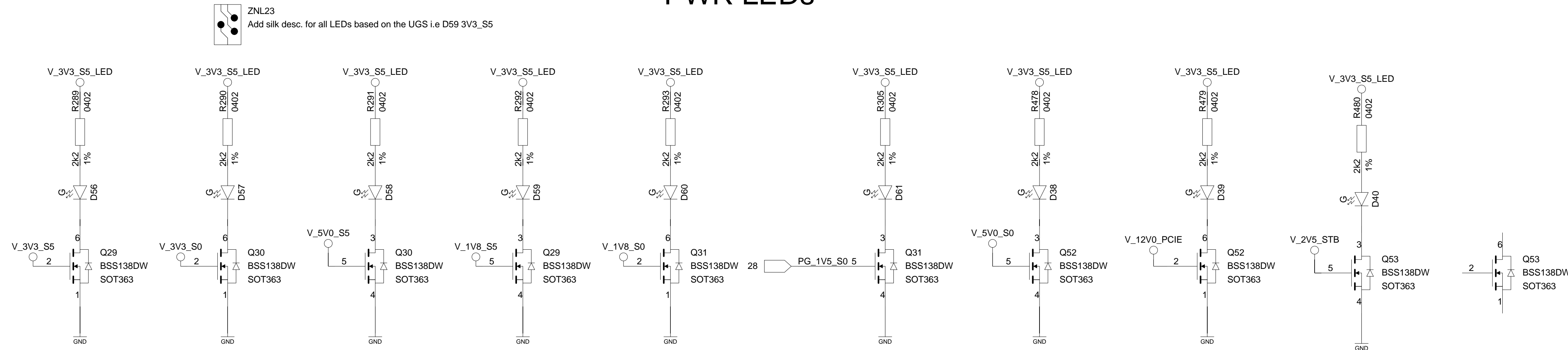
## WDT



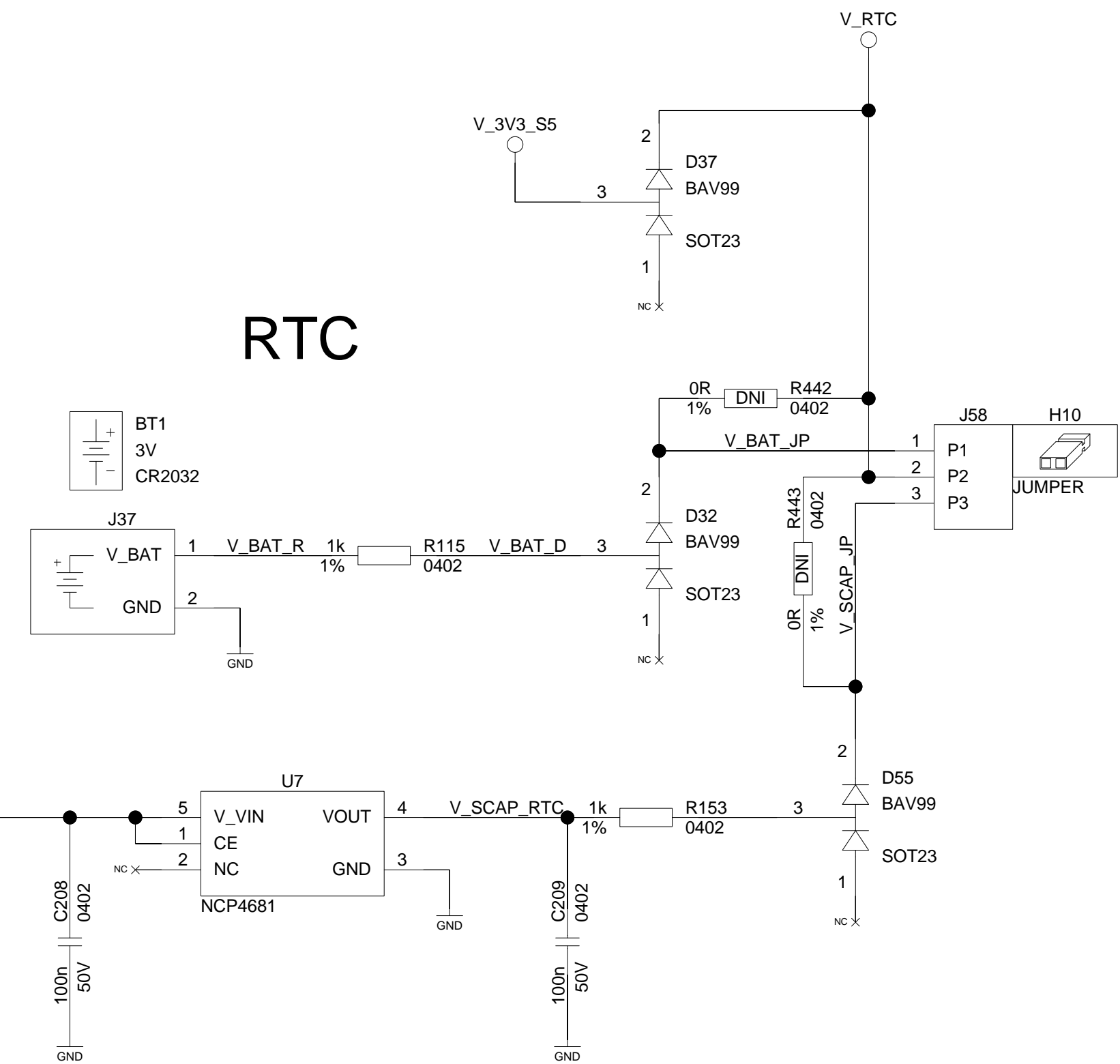
## LOAD switch for PCIe



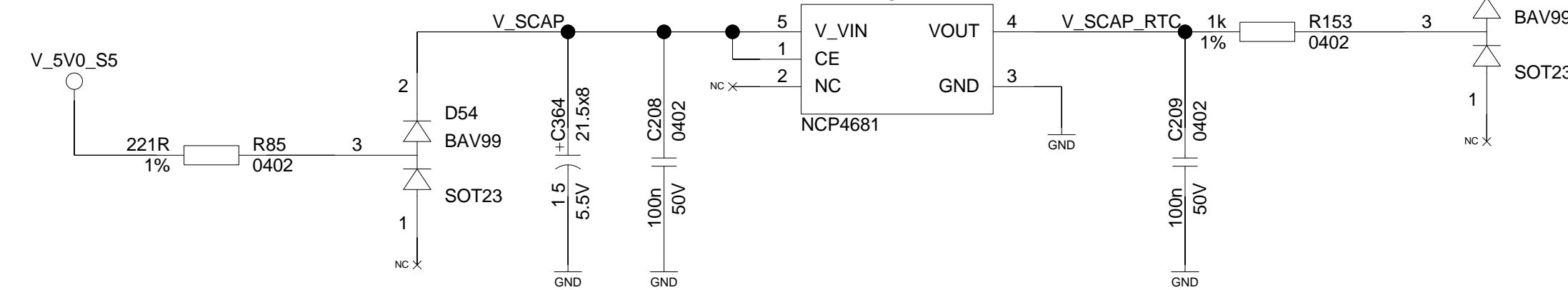
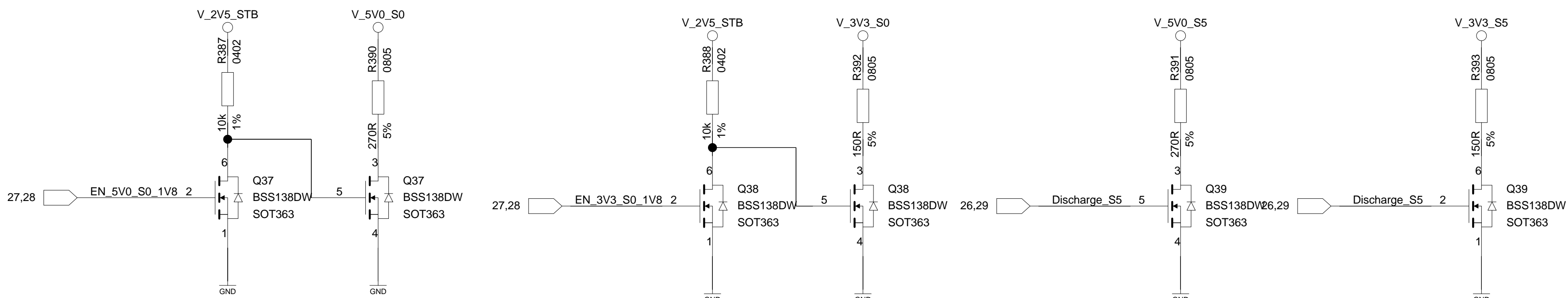
## PWR LEDs




RTC



## DISCHARGE



PROJECT			<div>SMARC Eval 2.0</div> <div>ADS2 - SMARC Eval 2.0</div>			<div> <b>kontron</b></div>			
BLOCK ID			DIVISION			NAME		DATE YYYY-MM-DD	
Schematic1 ( 29 of 30 )			CREATED:		KEEDC	JM, JH ,MV		2017.11.17	
			VERIFIED:		KEEDC	MH		2017.11.20	
			APPROVED:						
SHEET			PAGE			DRAWING ID		REV	
29 Power			29 OF 30			SCH 1400		D00	
PCB ID		PCB INDEX	LAST MODIFIED						
1062-0139		1400A	20/11/2017:15:03						

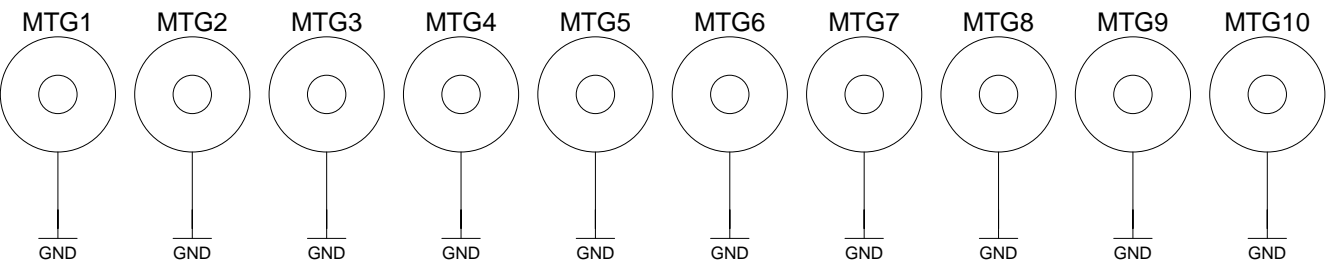
This drawing is proprietary to Kontron and may not be utilized in any means, electronic or mechanical, including photocopying and retrieval system without express written permission of Kontron.

Schematics are for reference only.  
Refer to ERP BOM and assembly instruction for build values.

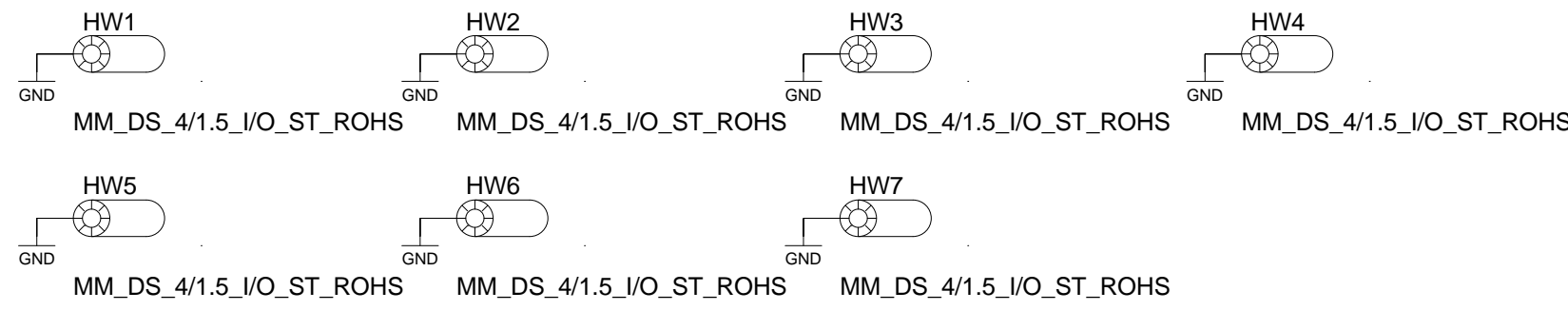
Created using CAD MGC VX 1.1

Mechanics

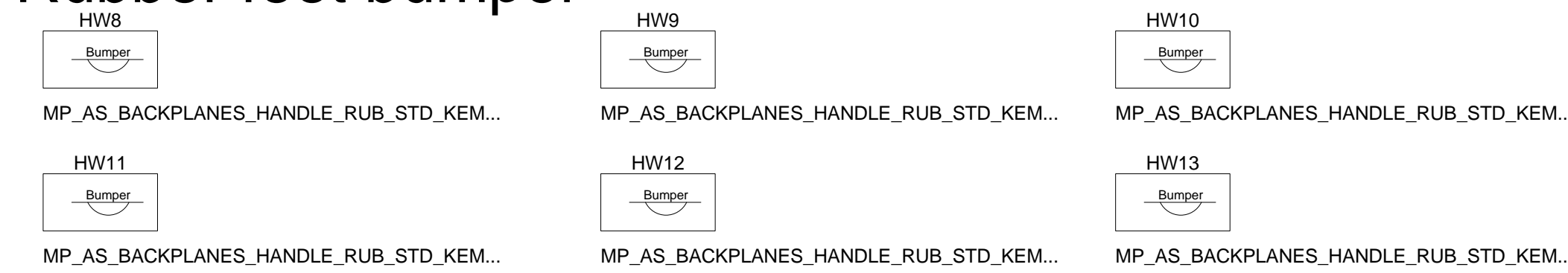
Baseboard mounting holes



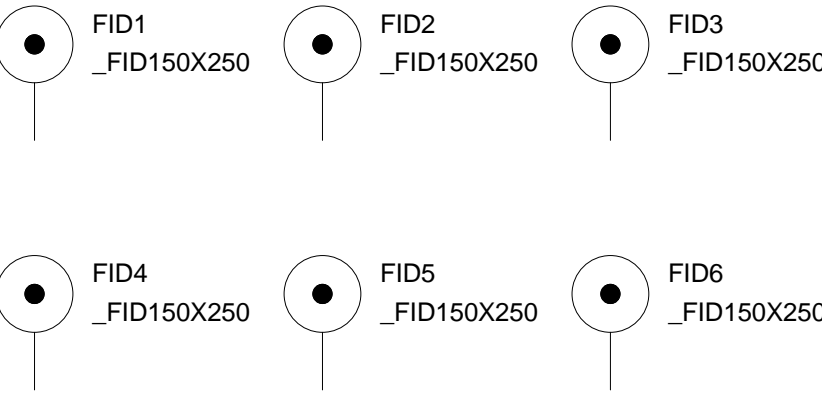
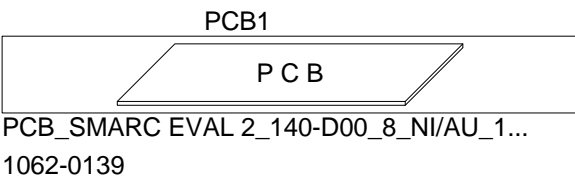
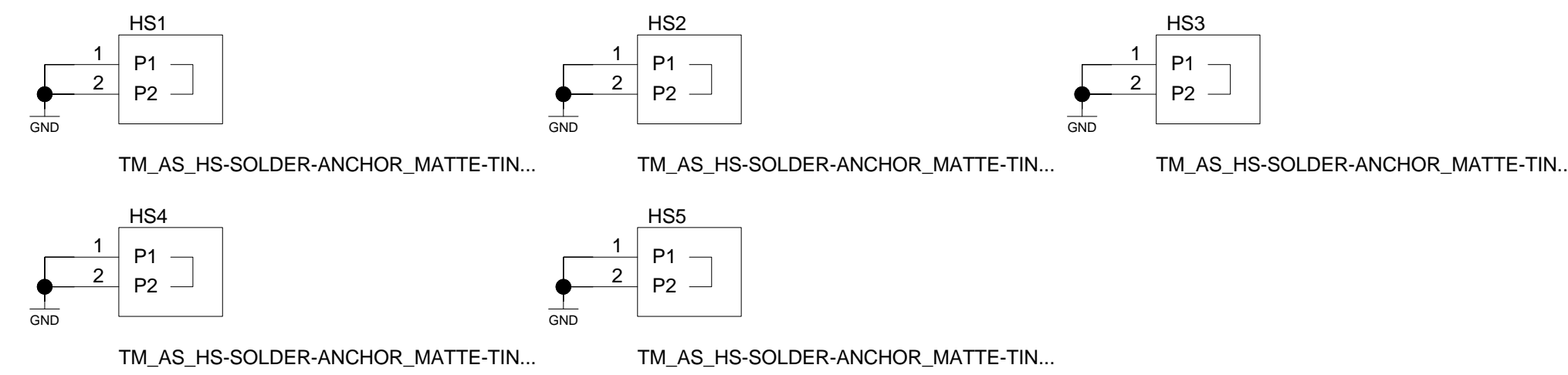
Module mounting holes



Rubber feet bumper



Ground connection



PROJECT SMARC Eval 2.0 ADS2 - SMARC Eval 2.0					
BLOCK ID Schematic1 ( 30 of 30 )			DIVISION CREATED: KEEDC	NAME JM, JH ,MV	DATE 2017.11.17
SHEET 30 Mechanics			VERIFIED: KEEDC	MH	2017.11.20
			APPROVED:		
PCB ID 1062-0139	PCB INDEX 1400A	LAST MODIFIED 20/11/2017:15:04	PAGE 30 OF 30	DRAWING ID SCH 1400	REV D00