

Please check the notes appearing in red on the schematic pages. In addition, please check the Errata document of the respective product (the potential issues discovered/reported are going to appear in the Errata first). Follow the guidance provided in the relevant Carrier Board Design Guide. Please carefully review your designs against all of the sections of the Carrier Board Design Guide before proceeding with manufacturing your custom carrier board. The documents referenced are available on our Developer Website.

REVISION HISTORY

IF IN DOUBT ASK

23 August 2012
0. Initial Release

18 September 2012
1. New Hardware Revision, Colibri Evaluation Baord V3.1
2. Unified Interface schematic page
- Swapped the designators of the resistors R89 and R90.
- Swapped the designators of the resistors R100 and R101.

28 September 2013
3. Schematic library and SD Card schematic page
- SD card image has been updated in the schematic library. SD card connector on the schematic page has been updated to reflect the library changes.

21 November 2013
4. USB schematic page
- The NOTE 1 has been added in the schematic page: "It is recommended to assemble 0R resistor instead of 22R for R102 and R103".

04 September 2014
5. All schematic pages
- Schematic page template has been updated.
- "Port Cross Reference" has been added to the project.
- Text comments for not assembled components (NA) have been removed.
- Schematic page numbering has been updated .
6. Revision history schematic page
- Revision history page has been added to the project.
7. Ethernet schematic pages
- The NOTE 2 has been added to the schematic page: "It is recommended to connect SODIMM 191 (ETH_GND) pin directly to the GND".

04 September 2014
8. New Hardware Revision, Colibri Evaluation Baord V3.2
9. Ethernet schematic page
- Jumper JP3 has been added to make Ethernet compatible with future voltage mode line drivers.
10. Camera interface schematic page
- Parallel Camera Interface connector X22 pin-out has been updated.
- The NOTE 3 has been added to the schematic page: "Connector X22 pin-out has been updated to maintain the compatibility with Apalis Evaluation Board".
11. Serial schematic page
- Jumpers JP20 and JP21 have been added to allow RTS and CTS signals of the FF UART to be routed to either connector X27 or connector X25.
- Pull-up resistors R177 and R178 have been added to the UART_USB_CTS and UART_USB_RXD signals.
12. GPIO schematic page
- Resistors R169 and R170 have been connected to connector X7 instead of connector X9.
13. CAN schematic page
- Jumpers JP4 and JP5 have been added to allow user to connect or disconnect the CAN controller output signals to the CAN transceiver.
- Connector X38 has been added to the schematic page. It will facilitate user to evaluate/test on-module CAN interface.

Revision History
RevisionHistory.SchDoc

Audio
Audio.SCHDOC

Ethernet
Ethernet.SCHDOC

SDCard
SDCard.SCHDOC

GPIOs
GPIOs.SCHDOC

Serial
Serial.SCHDOC

JTAG
JTAG.SCHDOC

LEDs_Switches
LEDs_Switches.SCHDOC

DVI-I
DVI-I.SCHDOC

Power_Switch
Power_Switch.SchDoc

PowerSupply
PowerSupply.SCHDOC

Extension
Extension.SCHDOC

RTC
RTC.SCHDOC

CAN
CAN.SCHDOC

USB
USB.SchDoc

Camera_Interface
Camera_Interface.SCHDOC

LDD
LDD.SCHDOC

LVDS
LVDS.SCHDOC

VGA
VGA.SCHDOC

Analog_IOs
Analog_IOs.SCHDOC

Generic_Display
Generic_Display.SCHDOC

Unified_Interface
Unified_Interface.SCHDOC



Title **Evaluation Board 3.2**

Toradex AG
Altsagenstrasse 5
Horw
6048
Switzerland

Size: A3

Number:2

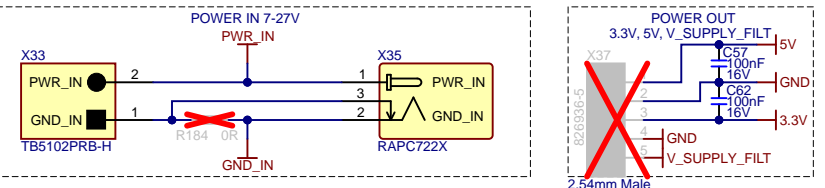
Revision:V3.2

Date: 9/8/2022

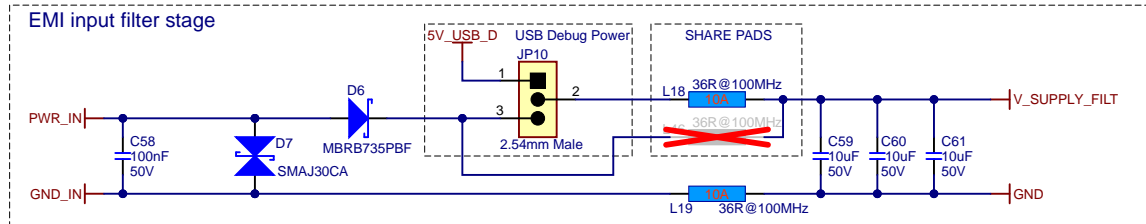
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Sheet 2 of 23

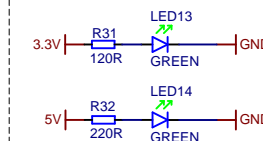
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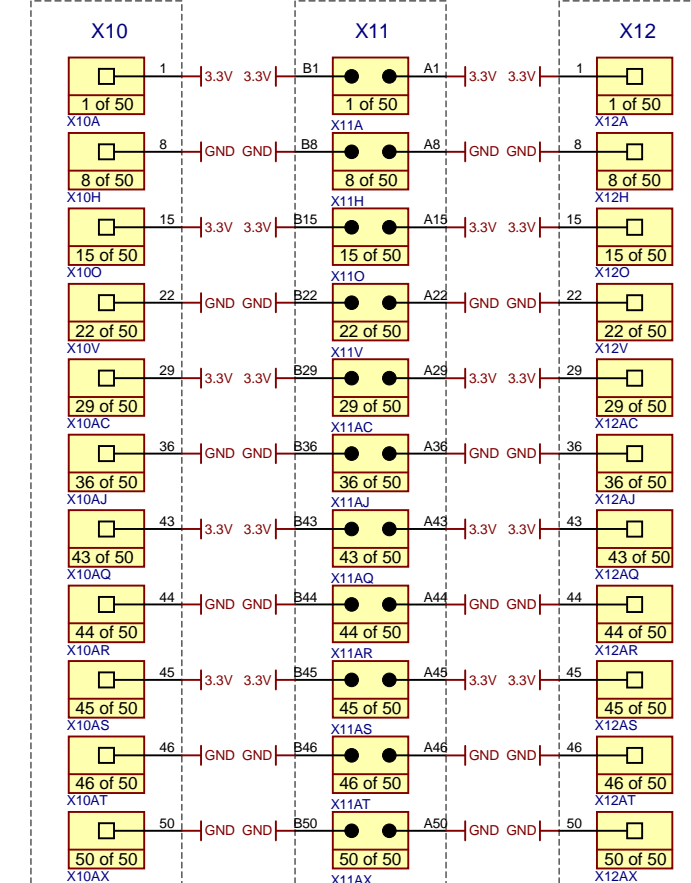
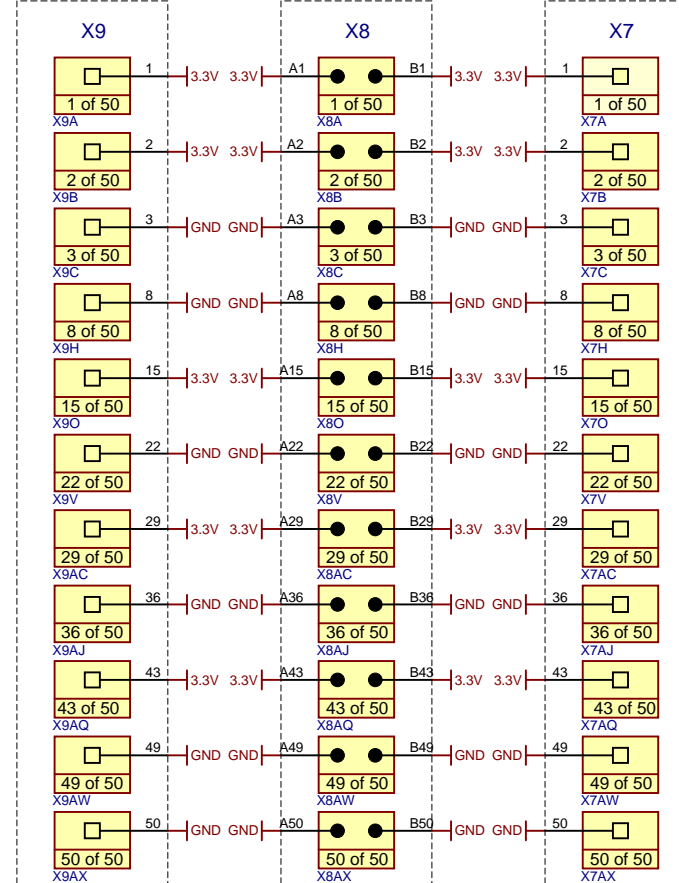
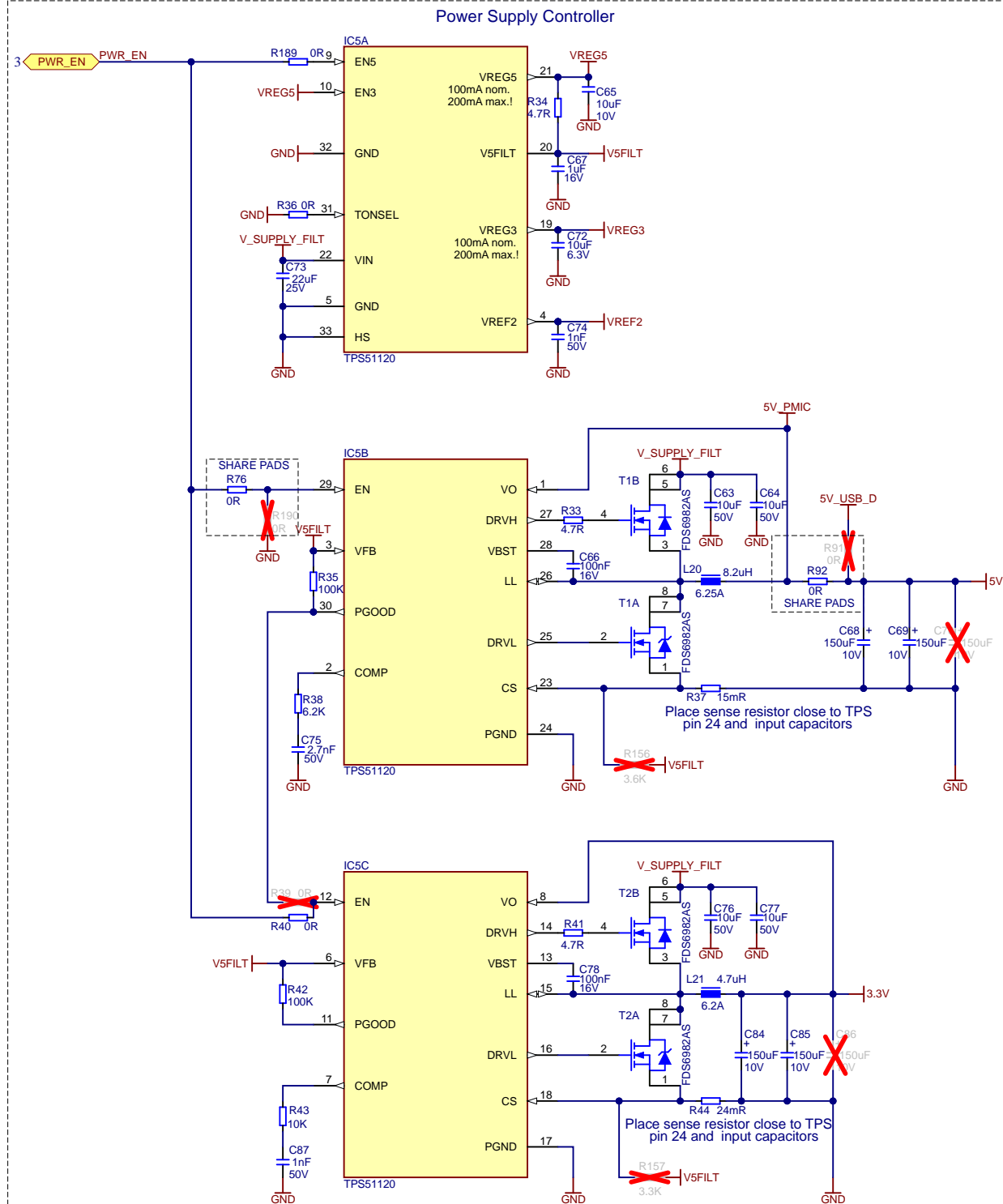
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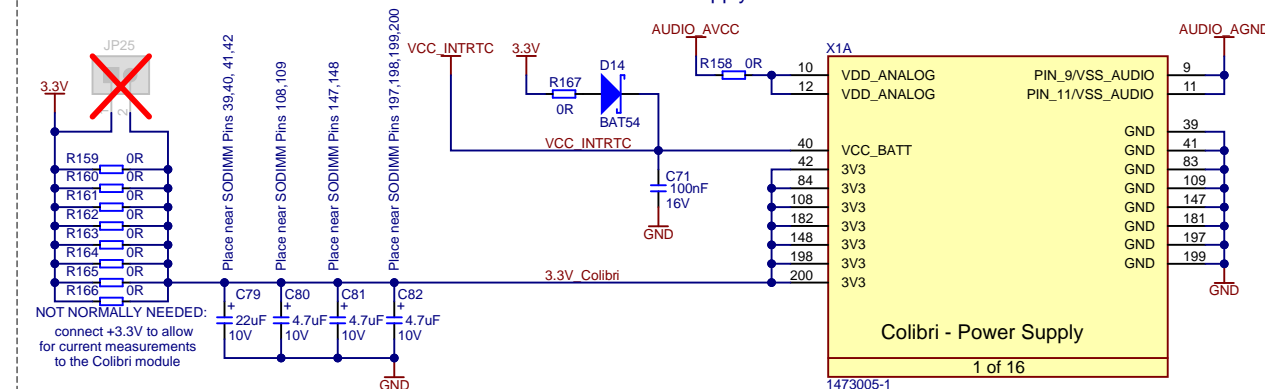
Power Supply Status



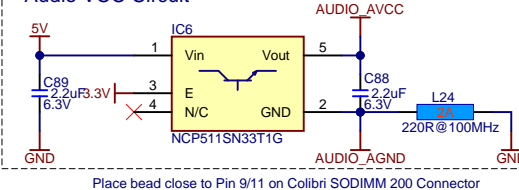
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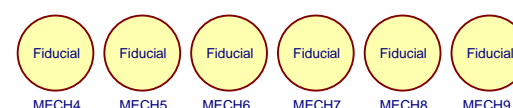
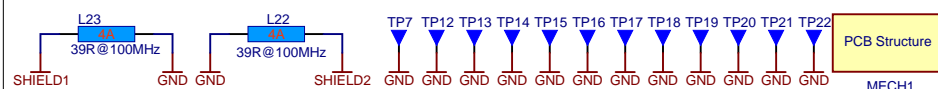
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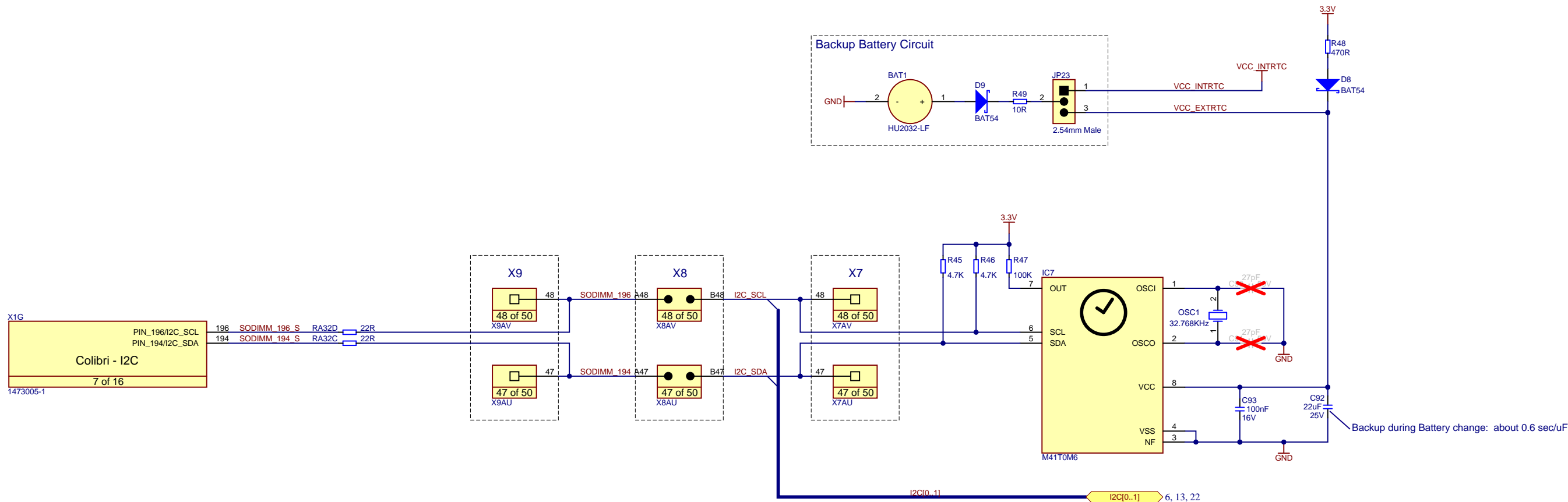


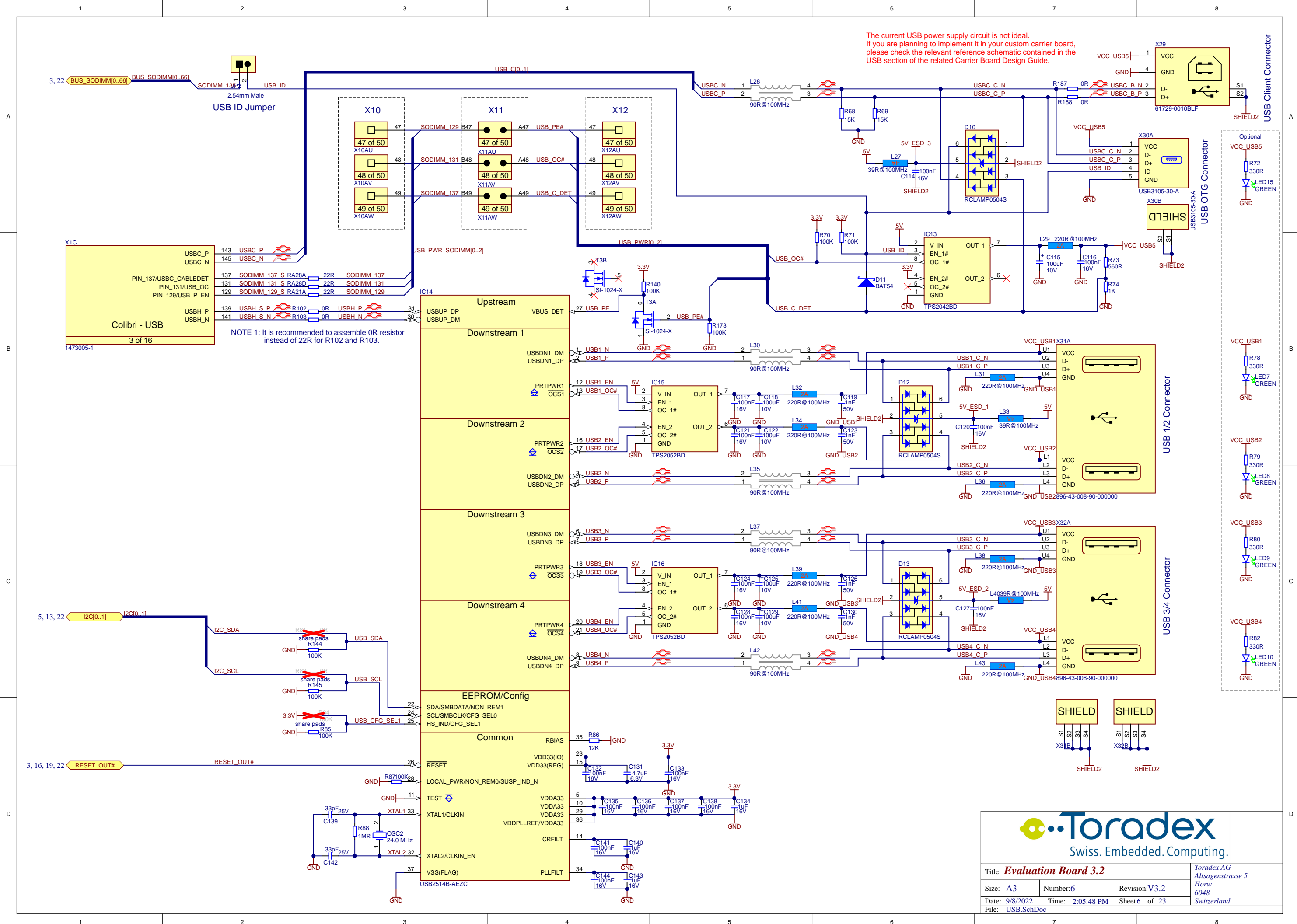
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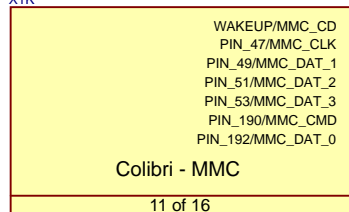
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Size: A3	Number: 4	Revision: V3.2	<i>Horw</i> <i>6048</i>
Date: 9/8/2022	Time: 2:05:48 PM	Sheet 4 of 23	<i>Switzerland</i>
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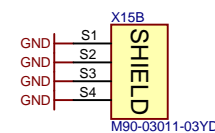
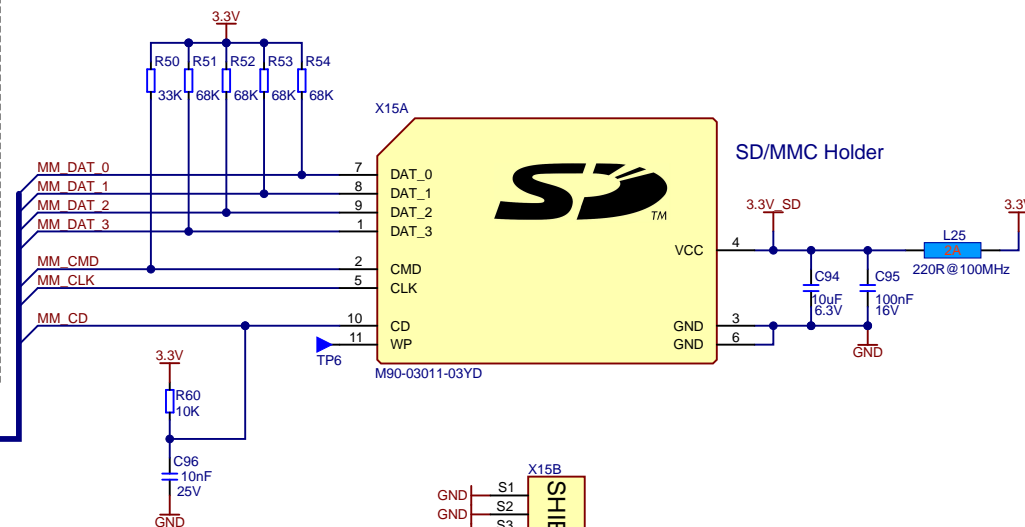
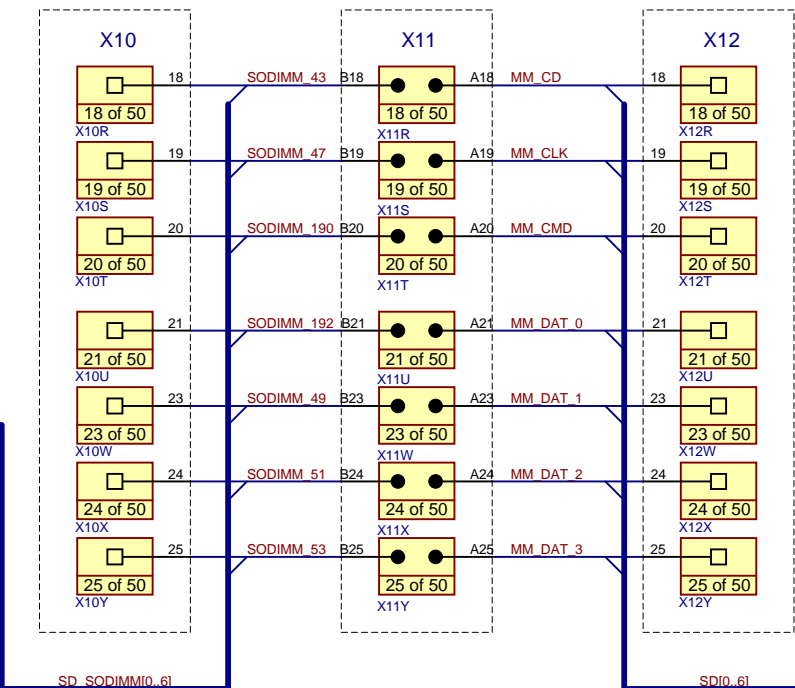
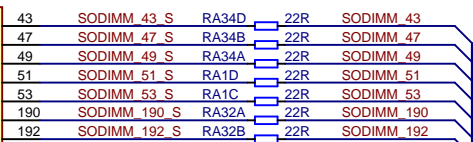




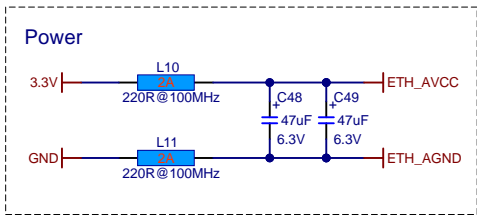
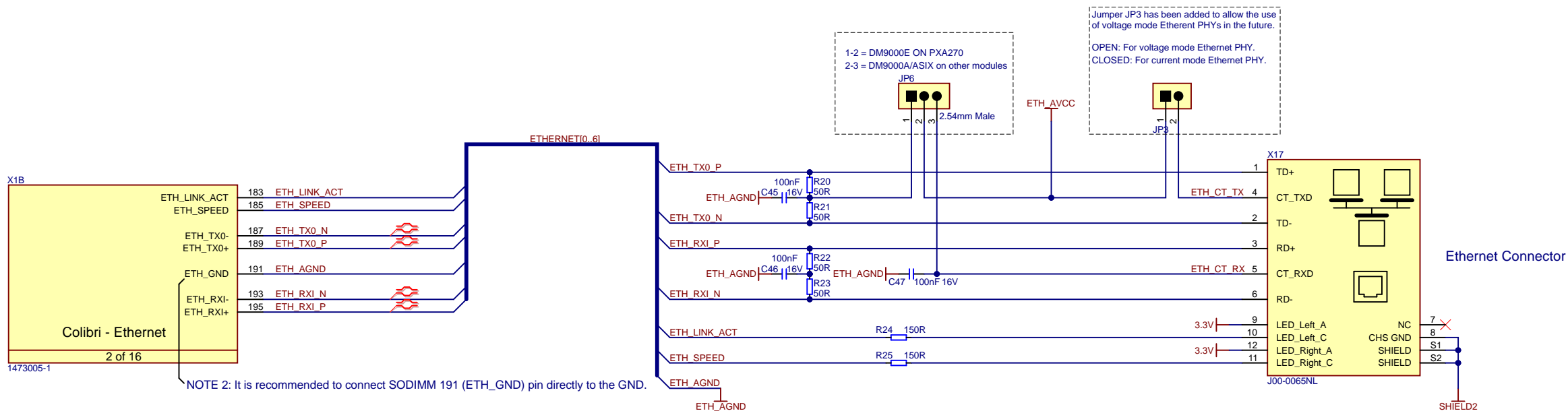
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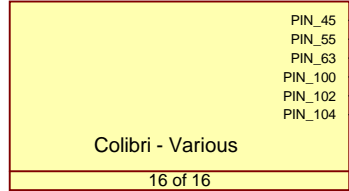
1473005-1



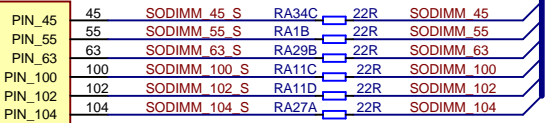
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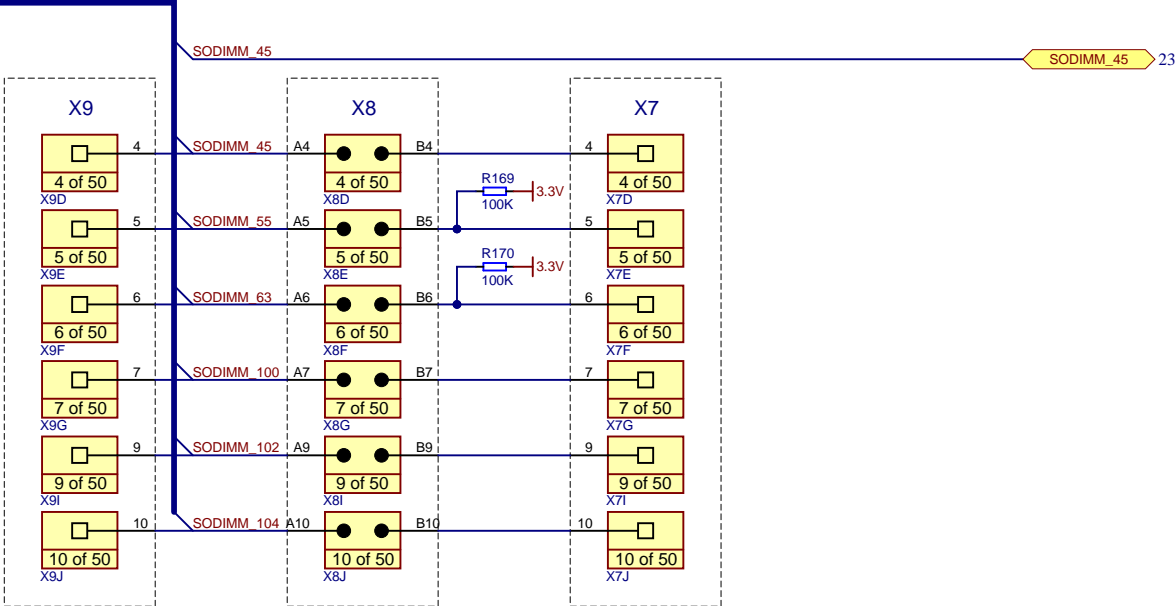
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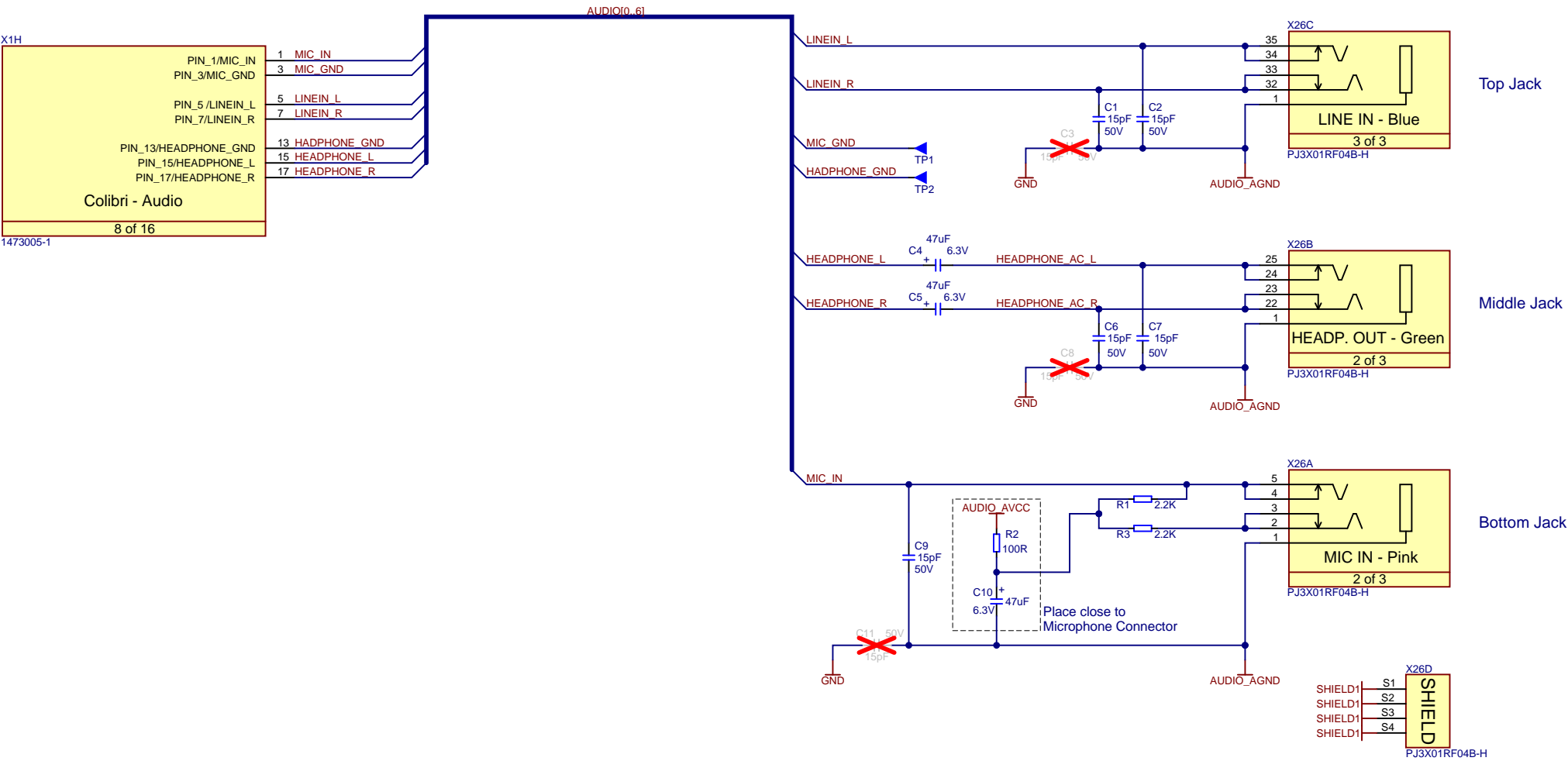
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GPIOs_SODIMM0_51



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Size: A3	Number:9	Revision:V3.2	
Date: 9/8/2022	Time: 2:05:49 PM	Sheet9 of 23	
File: GPIOs.SchDoc			



X1L

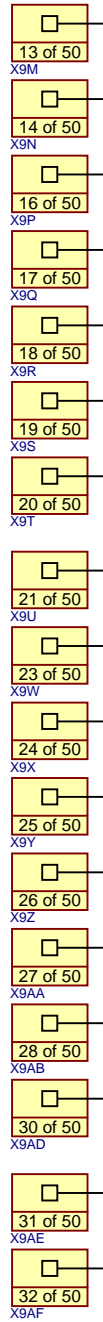
PIN_44/LDD_BIAS	44	SODIMM 44 S	RA4C	22R	SODIMM 44
PIN_46/LDD_D_7	46	SODIMM 46 S	RA4D	22R	SODIMM 46
PIN_48/LDD_D_9	48	SODIMM 48 S	RA5A	22R	SODIMM 48
PIN_50/LDD_D_11	50	SODIMM 50 S	RA5B	22R	SODIMM 50
PIN_52/LDD_D_12	52	SODIMM 52 S	RA5C	22R	SODIMM 52
PIN_54/LDD_D_13	54	SODIMM 54 S	RA5D	22R	SODIMM 54
PIN_56/LDD_PCLK_WR	56	SODIMM 56 S	RA6A	22R	SODIMM 56
PIN_58/LDD_D_3	58	SODIMM 58 S	RA6B	22R	SODIMM 58
PIN_60/LDD_D_2	60	SODIMM 60 S	RA6C	22R	SODIMM 60
PIN_62/LDD_D_8	62	SODIMM 62 S	RA6D	22R	SODIMM 62
PIN_64/LDD_D_15	64	SODIMM 64 S	RA7A	22R	SODIMM 64
PIN_66/LDD_D_14	66	SODIMM 66 S	RA7B	22R	SODIMM 66
PIN_68/LDD_LCLK_A0	68	SODIMM 68 S	RA7C	22R	SODIMM 68
PIN_70/LDD_D_1	70	SODIMM 70 S	RA7D	22R	SODIMM 70
PIN_72/LDD_D_5	72	SODIMM 72 S	RA8A	22R	SODIMM 72
PIN_74/LDD_D_10	74	SODIMM 74 S	RA8B	22R	SODIMM 74
PIN_76/LDD_D_0	76	SODIMM 76 S	RA8C	22R	SODIMM 76
PIN_78/LDD_D_4	78	SODIMM 78 S	RA8D	22R	SODIMM 78
PIN_80/LDD_D_6	80	SODIMM 80 S	RA9A	22R	SODIMM 80
PIN_82/LDD_FCLK_RD	82	SODIMM 82 S	RA9B	22R	SODIMM 82
PIN_57/LDD_D_16	57	SODIMM 57 S	RA1A	22R	SODIMM 57
PIN_61/LDD_D_17	61	SODIMM 61 S	RA29C	22R	SODIMM 61
PIN_71/BL_ON	71	SODIMM 71 S	RA30D	22R	SODIMM 71
PIN_136/LDD_D_18/ADDR24	136	SODIMM 136 S	RA25D	22R	SODIMM 136
PIN_138/LDD_D_19/ADDR23	138	SODIMM 138 S	RA10A	22R	SODIMM 138
PIN_140/LDD_D_20/ADDR22	140	SODIMM 140 S	RA10B	22R	SODIMM 140
PIN_142/LDD_D_21/ADDR21	142	SODIMM 142 S	RA10C	22R	SODIMM 142
PIN_144/LDD_D_22/ADDR20	144	SODIMM 144 S	RA10D	22R	SODIMM 144
PIN_146/LDD_D_23/ADDR19	146	SODIMM 146 S	RA16A	22R	SODIMM 146

Colibri - LDD

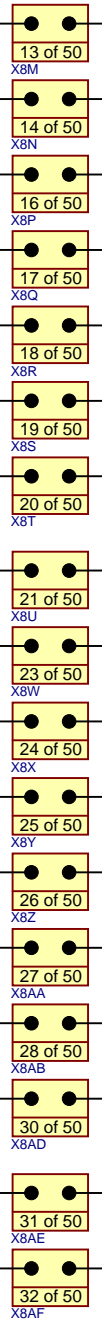
12 of 16

1473005-1

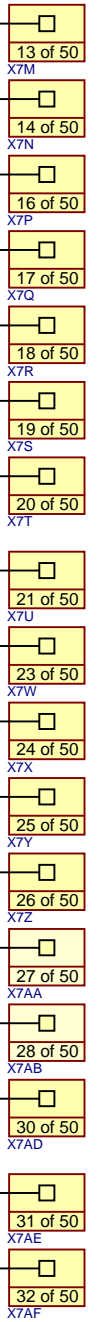
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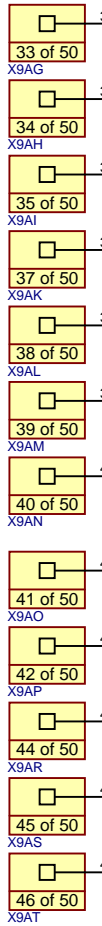
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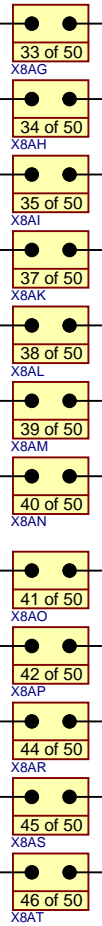
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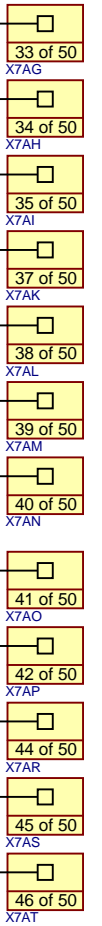
X9



X8



X7



LCD_SODIMM[0..28]

LCD_SODIMM[0..28] 13, 22

LCD[0..28]

LCD[0..28] 14, 15, 16, 17



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Number: **12**

Revision: **V3.2**

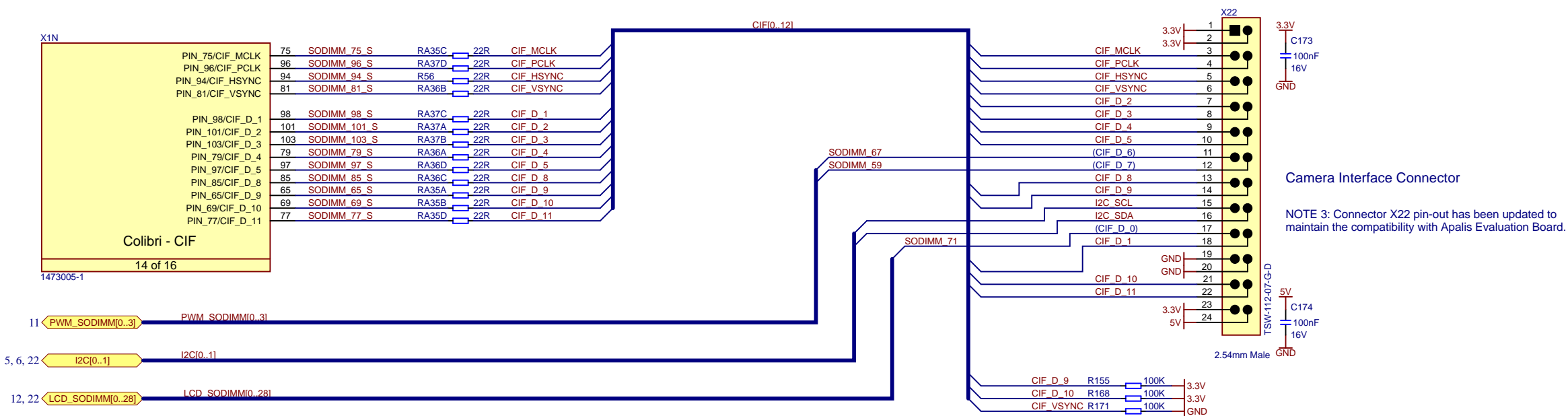
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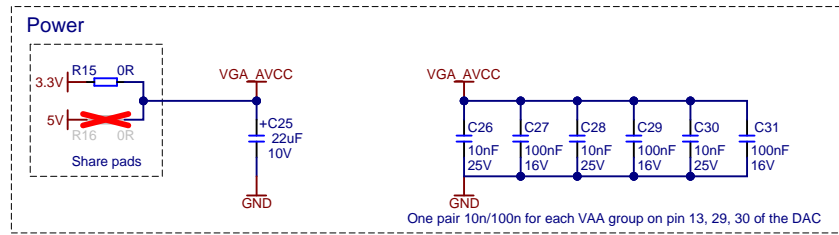
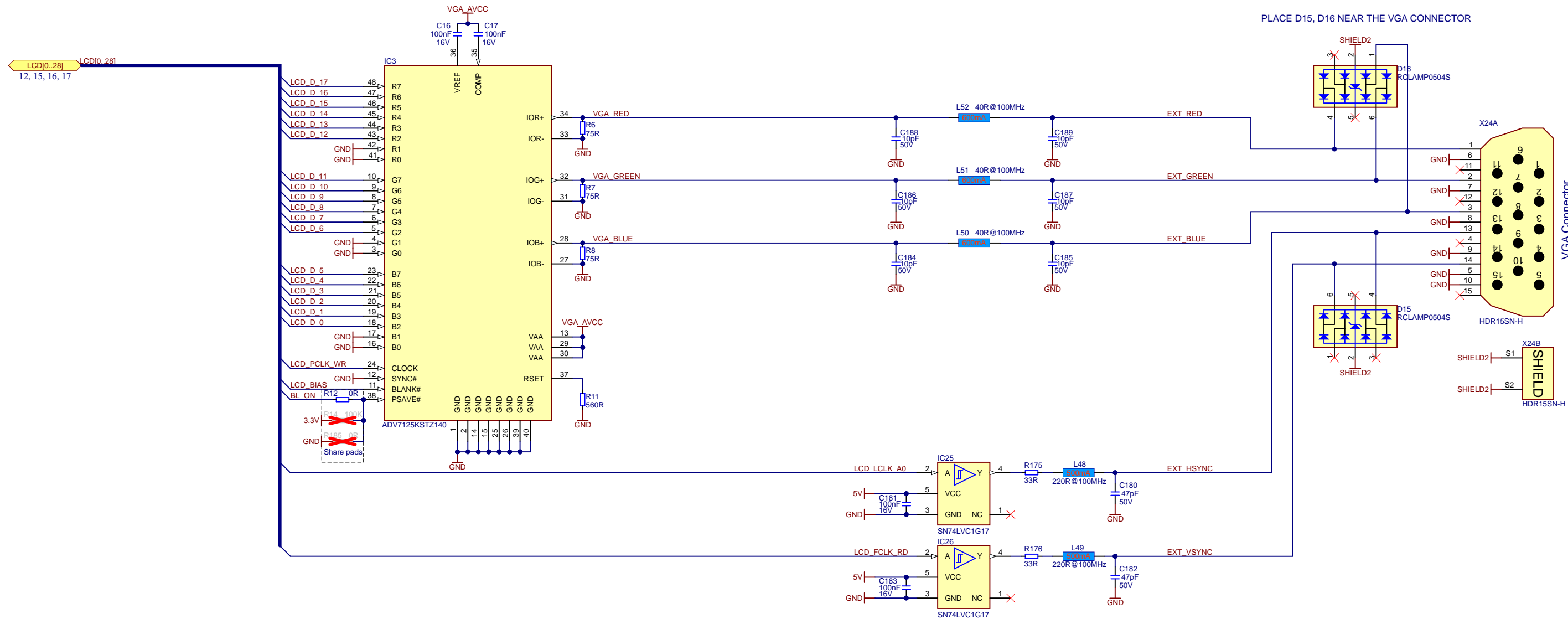
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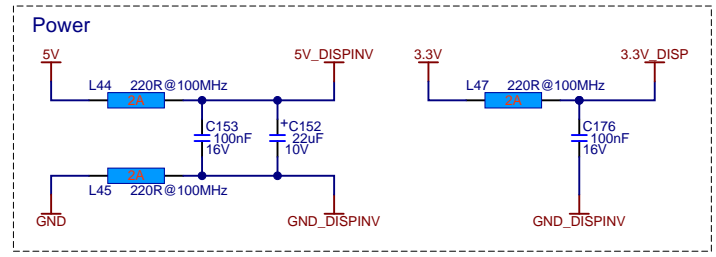
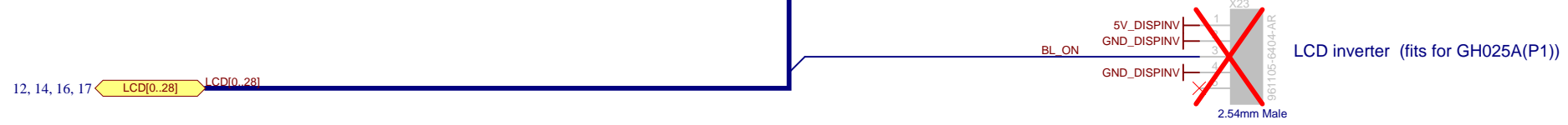
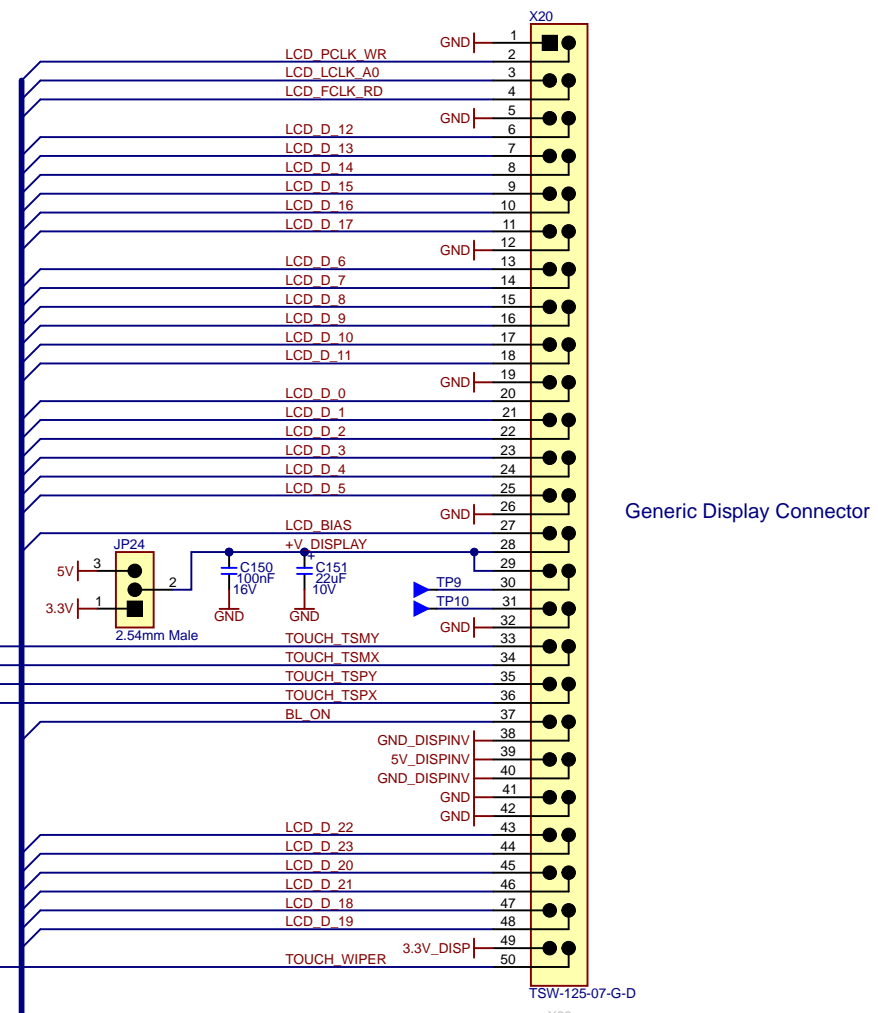
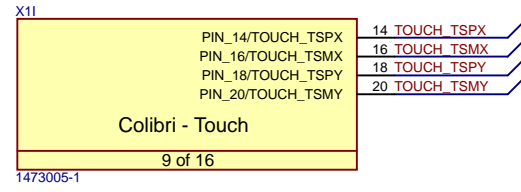
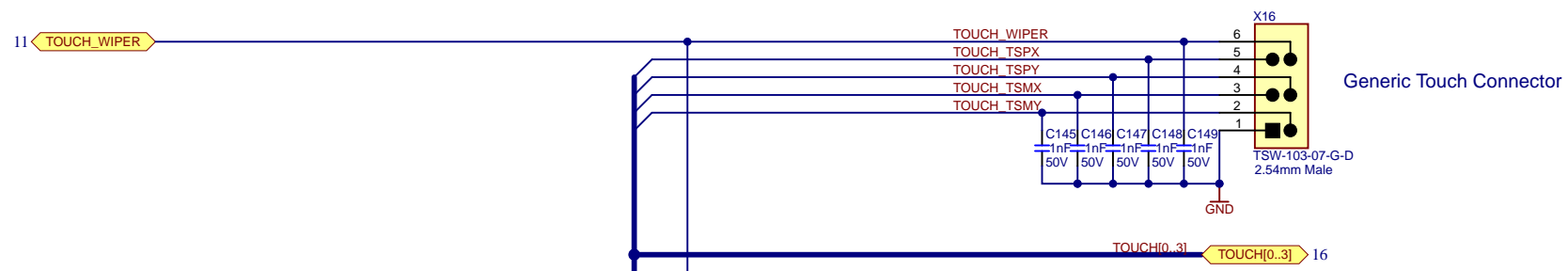
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Toradex AG
Altsagenstrasse 5
Horw
6048
Switzerland



Title Evaluation Board 3.2			Toradex AG Altsagenstrasse 5 Horw 6048 Switzerland
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Date: 9/8/2022	Time: 2:05:50 PM	Sheet 13 of 23	
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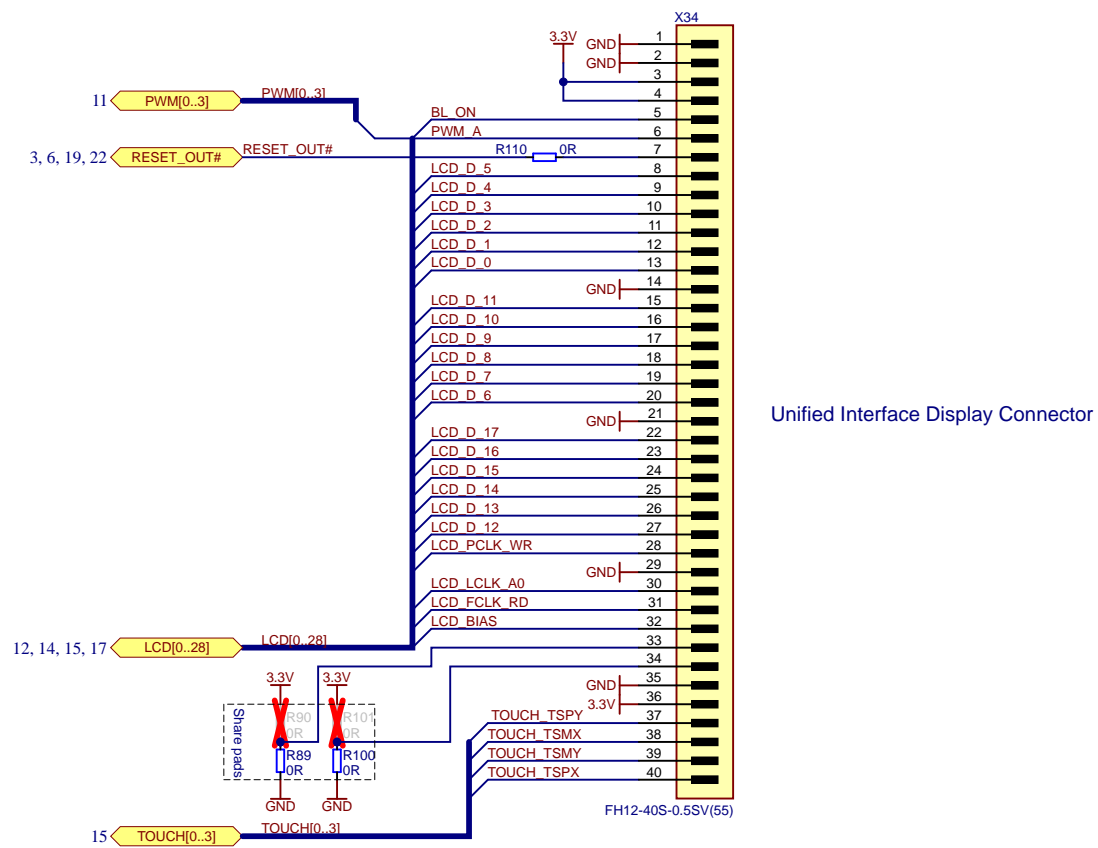




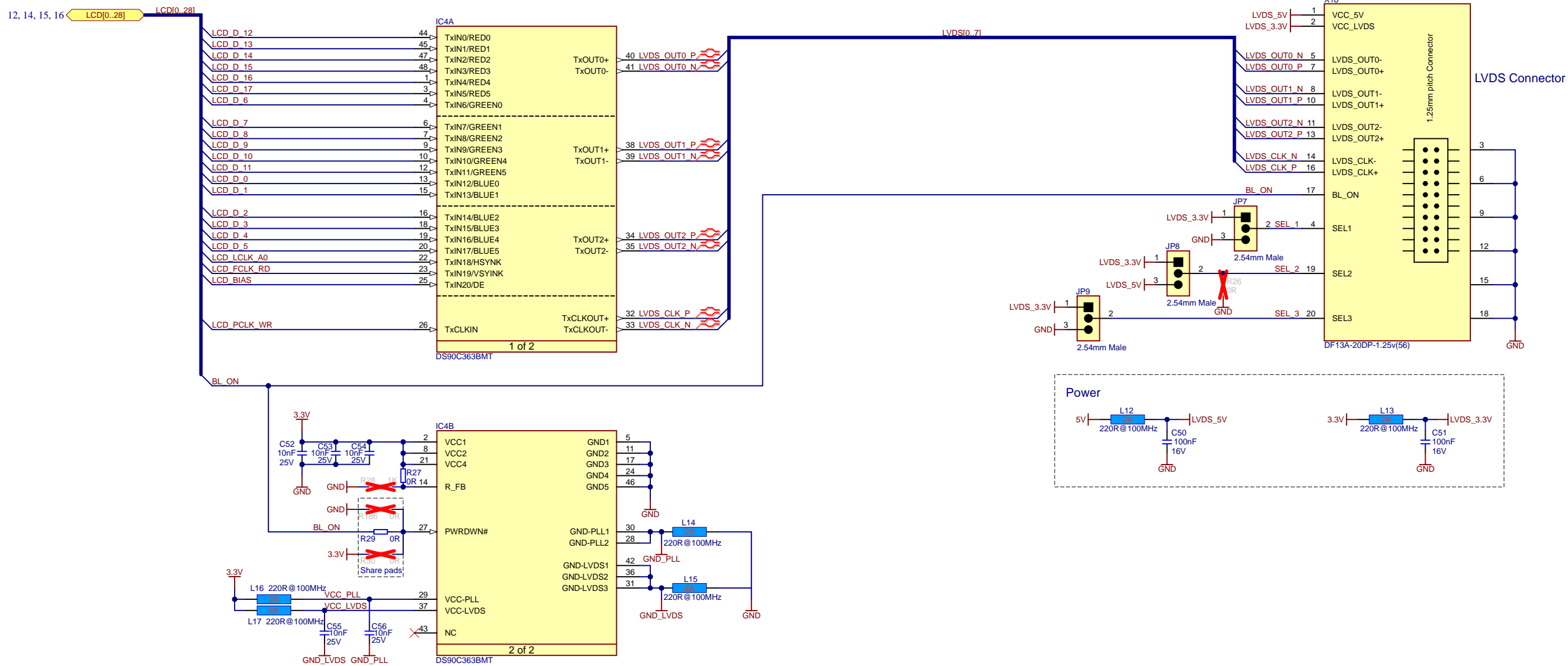


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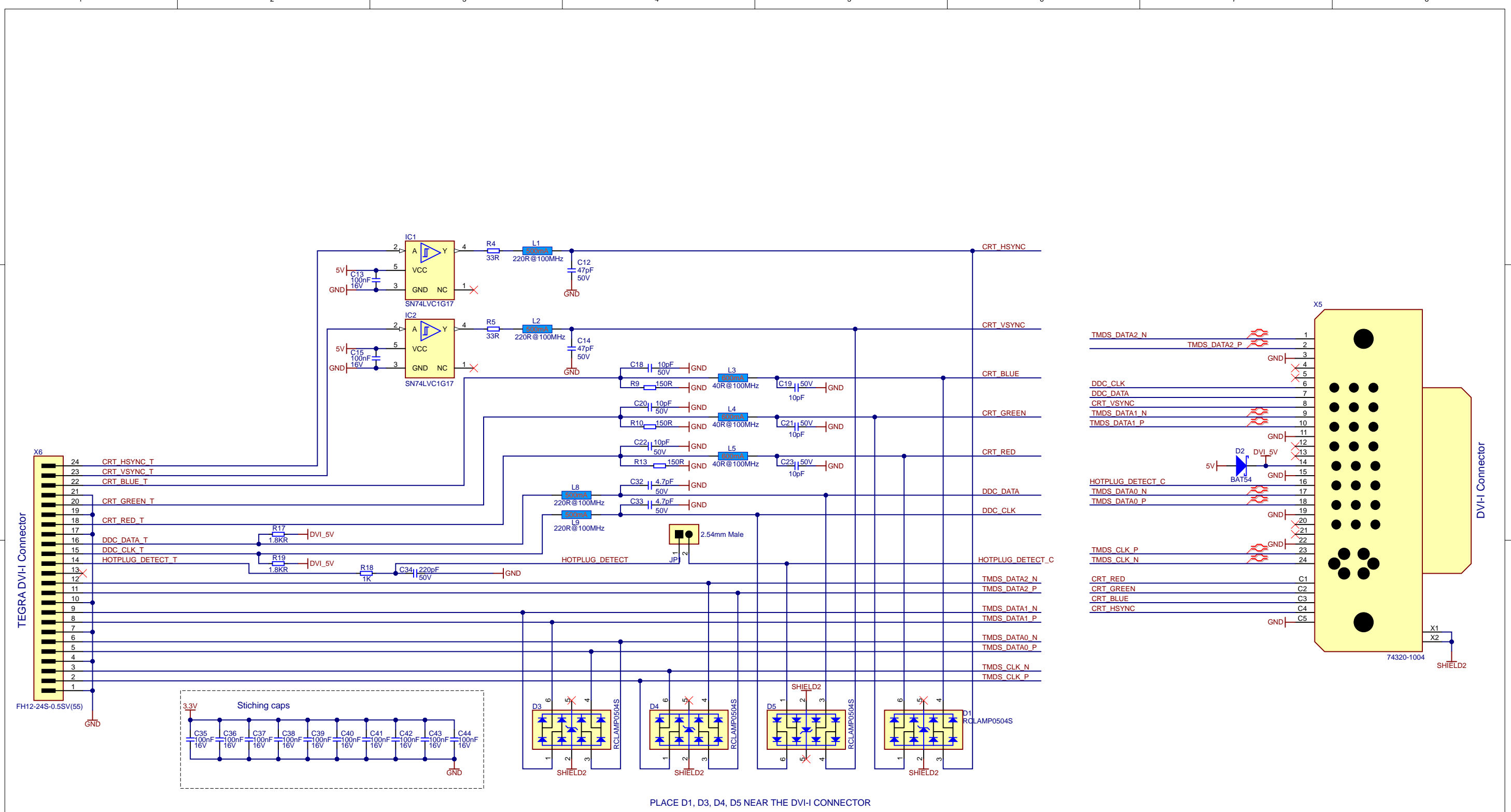
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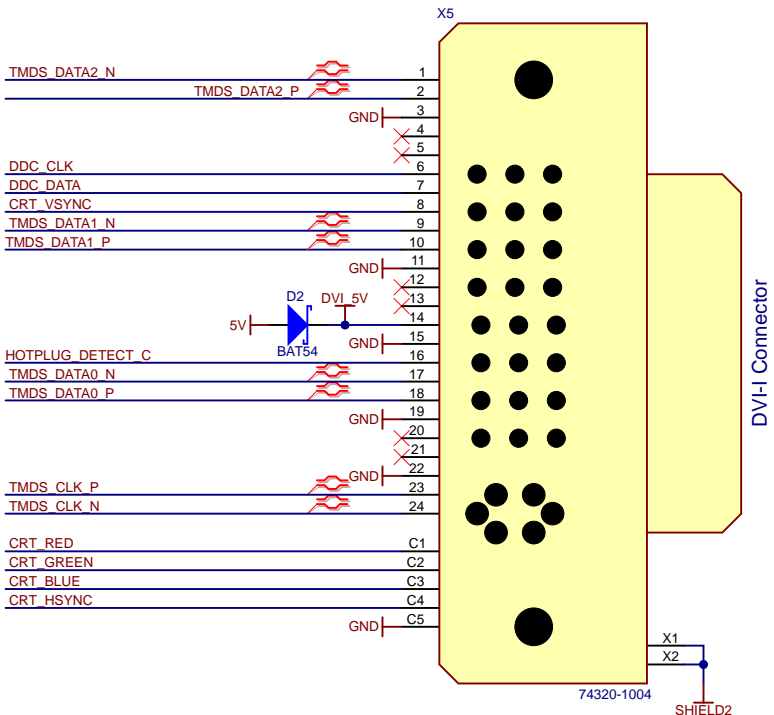
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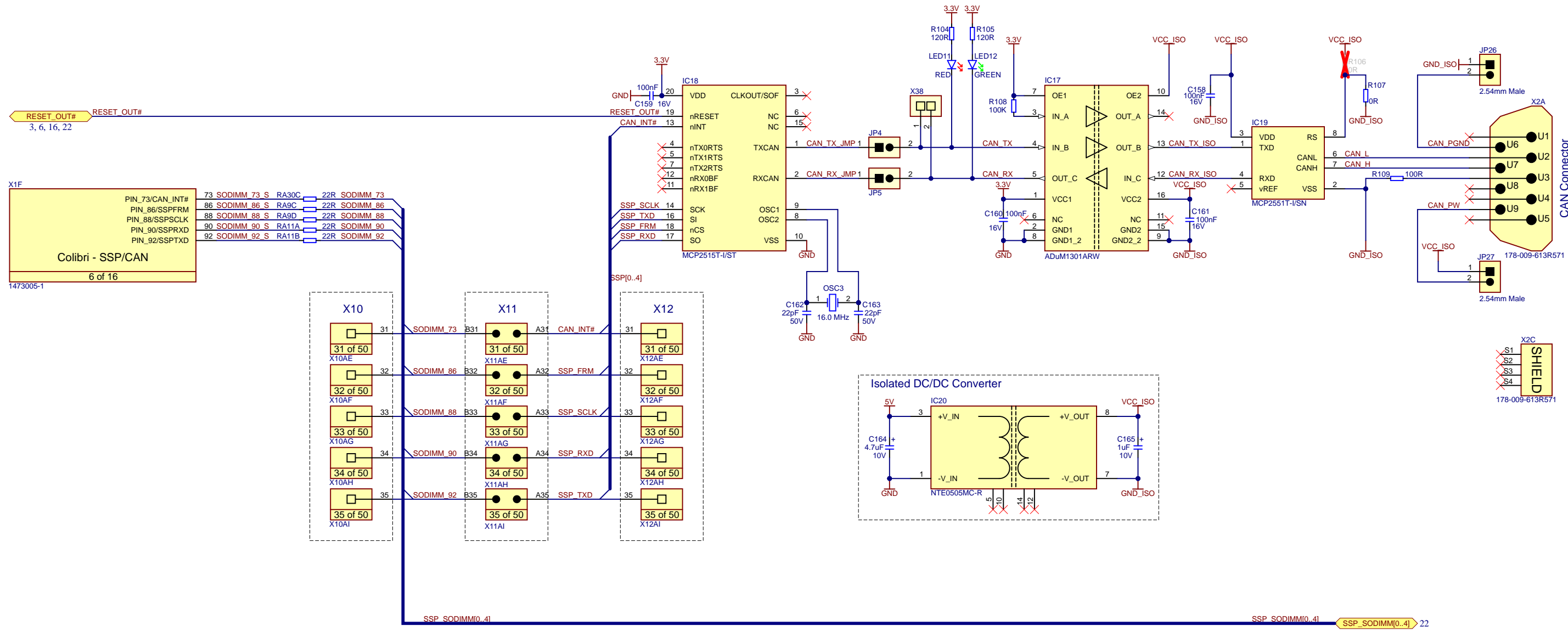


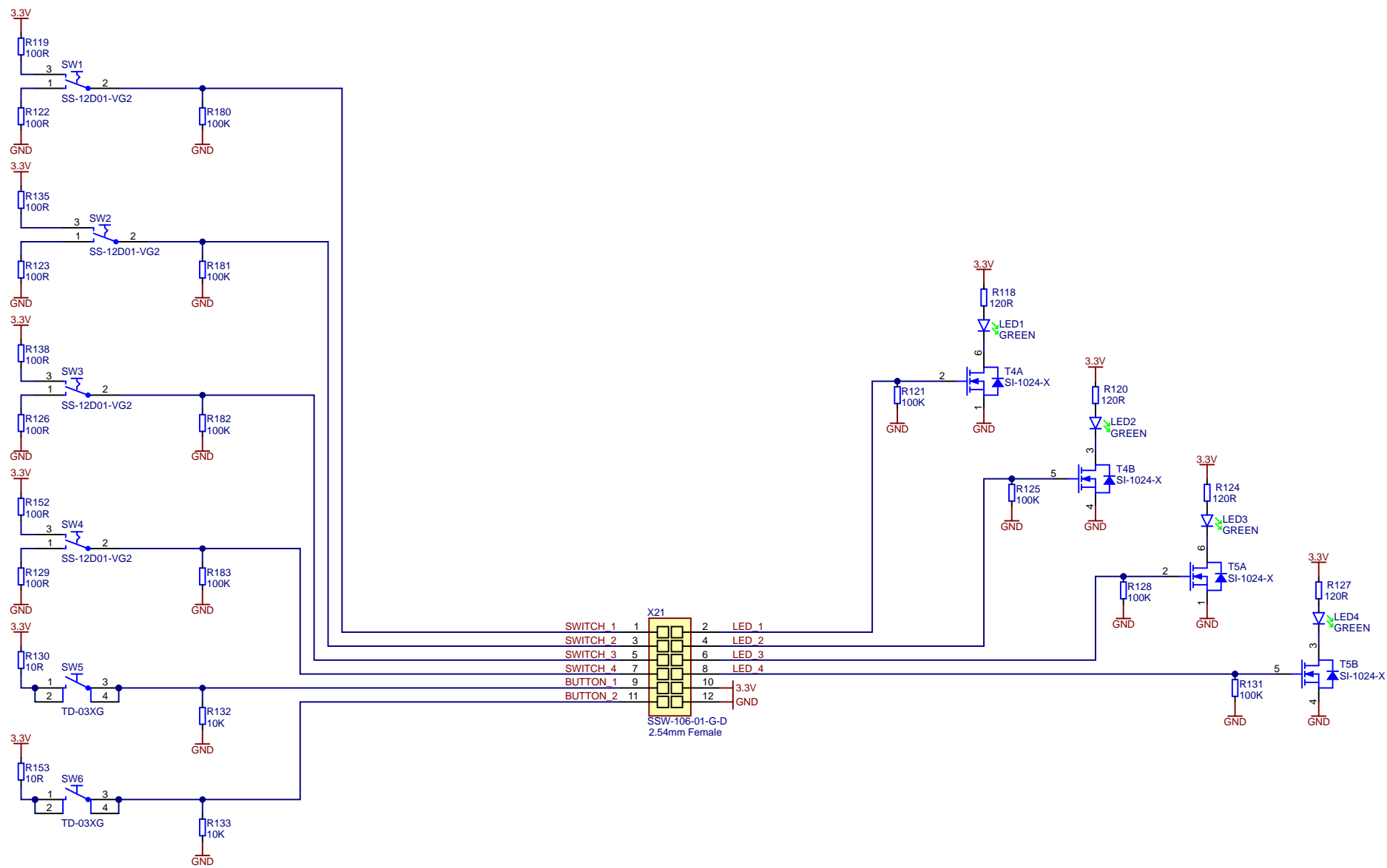
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Size: A3	Number: 17	Revision: V3.2	
Date: 9/8/2022	Time: 2:05:51 PM	Sheet 17 of 23	
File: LVDS.SchDoc			



PLACE D1, D3, D4, D5 NEAR THE DVI-I CONNECTOR







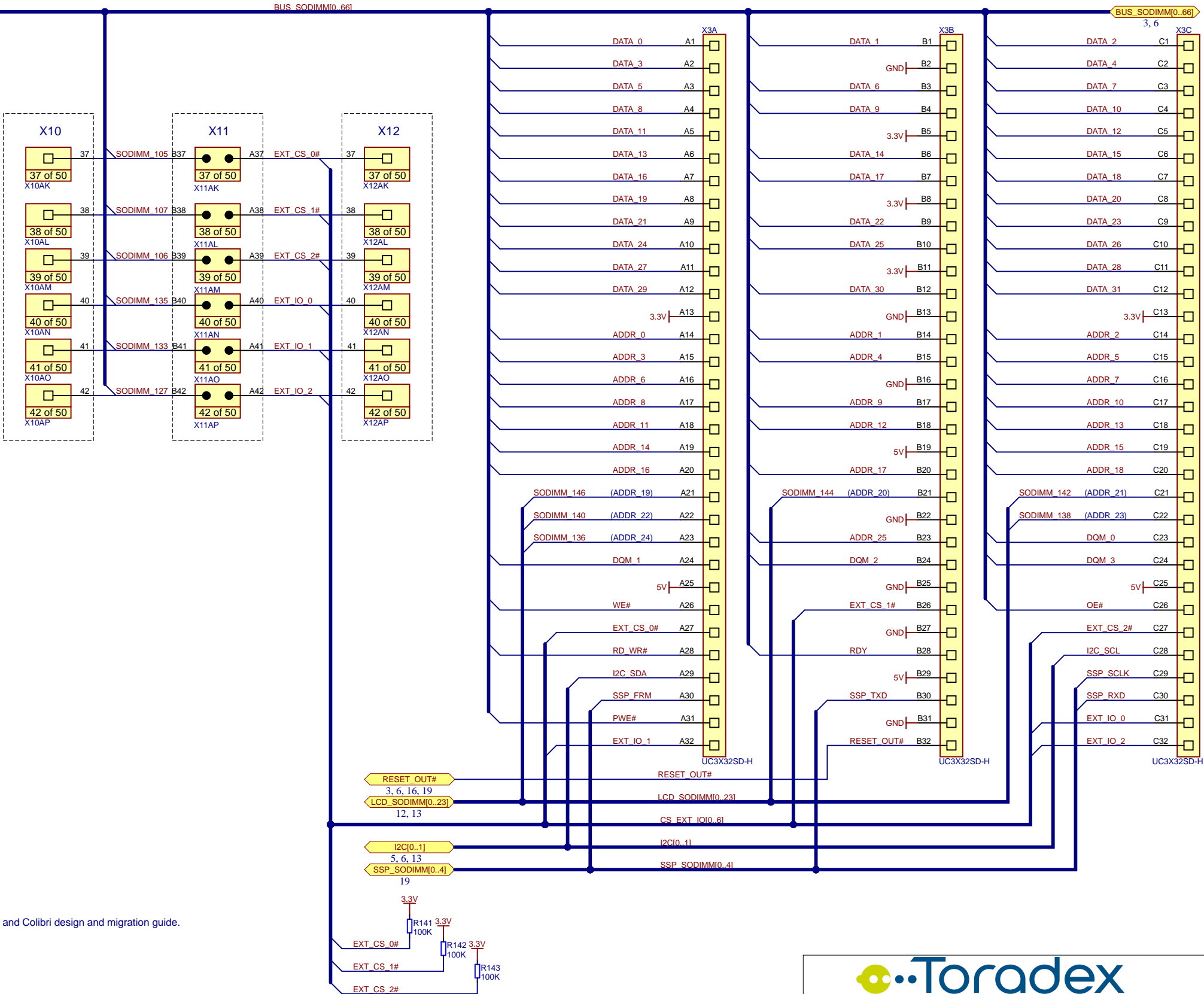
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DATA0	149 SODIMM 149 S RA12D 22R DATA 0
DATA1	151 SODIMM 151 S RA12C 22R DATA 1
DATA2	153 SODIMM 153 S RA12B 22R DATA 2
DATA3	155 SODIMM 155 S RA12A 22R DATA 3
DATA4	157 SODIMM 157 S RA13D 22R DATA 4
DATA5	159 SODIMM 159 S RA13C 22R DATA 5
DATA6	161 SODIMM 161 S RA13B 22R DATA 6
DATA7	163 SODIMM 163 S RA13A 22R DATA 7
DATA8	165 SODIMM 165 S RA14D 22R DATA 8
DATA9	167 SODIMM 167 S RA14C 22R DATA 9
DATA10	169 SODIMM 169 S RA14B 22R DATA 10
DATA11	171 SODIMM 171 S RA14A 22R DATA 11
DATA12	173 SODIMM 173 S RA15D 22R DATA 12
DATA13	175 SODIMM 175 S RA15C 22R DATA 13
DATA14	177 SODIMM 177 S RA15B 22R DATA 14
DATA15	179 SODIMM 179 S RA15A 22R DATA 15
DATA16	150 SODIMM 150 S RA16B 22R DATA 16
DATA17	152 SODIMM 152 S RA16C 22R DATA 17
DATA18	154 SODIMM 154 S RA16D 22R DATA 18
DATA19	156 SODIMM 156 S RA17A 22R DATA 19
DATA20	158 SODIMM 158 S RA17B 22R DATA 20
DATA21	160 SODIMM 160 S RA17C 22R DATA 21
DATA22	162 SODIMM 162 S RA17D 22R DATA 22
DATA23	164 SODIMM 164 S RA18A 22R DATA 23
DATA24	166 SODIMM 166 S RA18B 22R DATA 24
DATA25	168 SODIMM 168 S RA18C 22R DATA 25
DATA26	170 SODIMM 170 S RA18D 22R DATA 26
DATA27	172 SODIMM 172 S RA19A 22R DATA 27
DATA28	174 SODIMM 174 S RA19B 22R DATA 28
DATA29	176 SODIMM 176 S RA19C 22R DATA 29
DATA30	178 SODIMM 178 S RA19D 22R DATA 30
DATA31	180 SODIMM 180 S RA24A 22R DATA 31
ADDR0	111 SODIMM 111 S RA31B 22R ADDR 0
ADDR1	113 SODIMM 113 S RA31A 22R ADDR 1
ADDR2	115 SODIMM 115 S RA20D 22R ADDR 2
ADDR3	117 SODIMM 117 S RA20C 22R ADDR 3
ADDR4	119 SODIMM 119 S RA20B 22R ADDR 4
ADDR5	121 SODIMM 121 S RA20A 22R ADDR 5
ADDR6	123 SODIMM 123 S RA21D 22R ADDR 6
ADDR7	125 SODIMM 125 S RA21C 22R ADDR 7
ADDR8	110 SODIMM 110 S RA27C 22R ADDR 8
ADDR9	112 SODIMM 112 S RA27D 22R ADDR 9
ADDR10	114 SODIMM 114 S RA22A 22R ADDR 10
ADDR11	116 SODIMM 116 S RA22B 22R ADDR 11
ADDR12	118 SODIMM 118 S RA22C 22R ADDR 12
ADDR13	120 SODIMM 120 S RA22D 22R ADDR 13
ADDR14	122 SODIMM 122 S RA23A 22R ADDR 14
ADDR15	124 SODIMM 124 S RA23B 22R ADDR 15
ADDR16	188 SODIMM 188 S RA24D 22R ADDR 16
ADDR17	186 SODIMM 186 S RA24C 22R ADDR 17
ADDR18	184 SODIMM 184 S RA24B 22R ADDR 18
ADDR25	134 SODIMM 134 S RA25C 22R ADDR 25
CS0#	105 SODIMM 105 S RA31D 22R SODIMM 105
CS1#	107 SODIMM 107 S RA31C 22R SODIMM 107
CS2#	106 SODIMM 106 S RA27B 22R SODIMM 106
PIN_135/EXT_IO[0]	135 SODIMM 135 S RA28B 22R SODIMM 135
PIN_133/EXT_IO[1]	133 SODIMM 133 S RA28C 22R SODIMM 133
PIN_127/EXT_IO[2]	127 SODIMM 127 S RA21B 22R SODIMM 127
DF_WE#/DQM3	132 SODIMM 132 S RA25B 22R DQM 3
DF_RE_OE#/DQM2	130 SODIMM 130 S RA25A 22R DQM 2
BE1#/DQM1	128 SODIMM 128 S RA23D 22R DQM 1
BE0#/DQM0	126 SODIMM 126 S RA23C 22R DQM 0
WE#	89 SODIMM 89 S RA30A 22R WE#
OE#	91 SODIMM 91 S RA26D 22R OE#
PIN_93/RD_WR#	93 SODIMM 93 S RA26C 22R RD_WR#
PIN_95/RDY	95 SODIMM 95 S RA26B 22R RDY
PIN_99/PWE#	99 SODIMM 99 S RA26A 22R PWE#

Colibri - BUS

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The function of the pins might be different in different modules. Please check the individual module datasheet and Colibri design and migration guide.



Title Evaluation Board 3.2			Toradex AG Altsagenstrasse 5 Horw 6048 Switzerland
Size: A3	Number: 22	Revision: V3.2	
Date: 9/8/2022	Time: 2:05:51 PM	Sheet 22 of 23	
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