
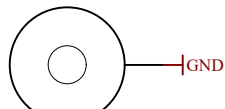


Regarding the usage of our schematics and alike documentation for Trenz module TEI0006.

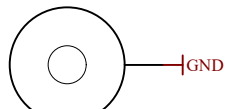
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Schematics and other handouts serve for informational purposes only!

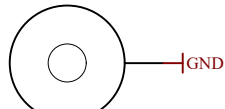
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	A4	Number: <b>TEI0006 105-6E</b>	Rev. <b>03</b>
	Date: <b>2020-08-31</b>	Copyright: <b>Trenz Electronic GmbH / TT</b>	Page <b>1</b> of <b>23</b>
	Filename: <b>Legal Notices Modules.SchDoc</b>		



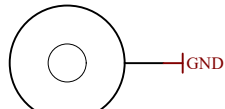
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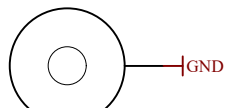
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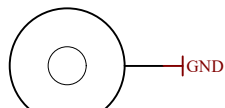
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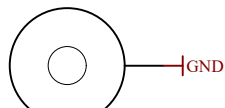
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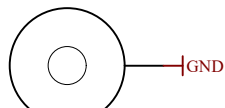
Mount.Hole 3.2mm für Unterlegscheibe



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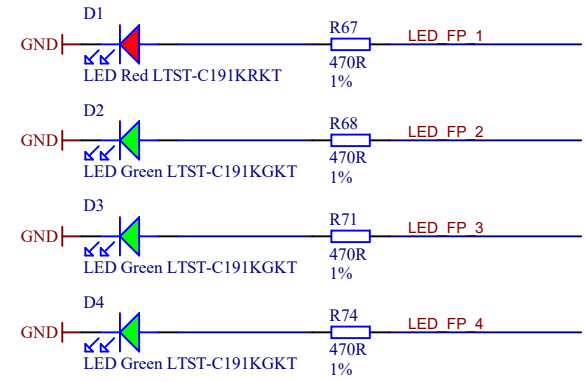
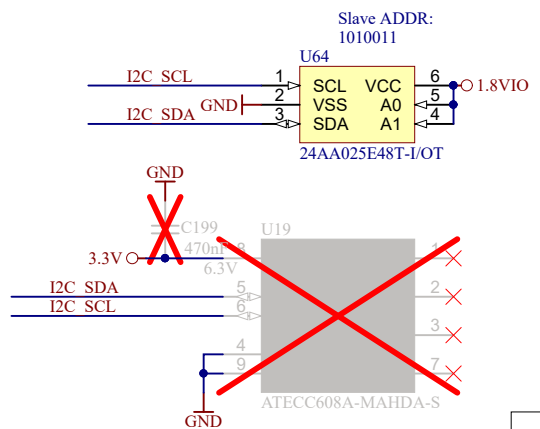
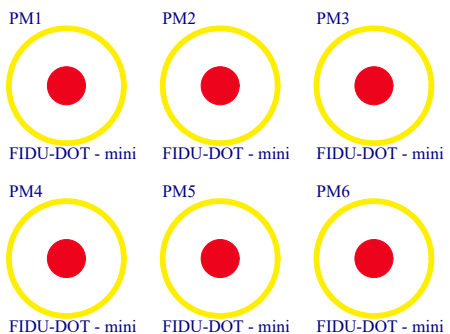


Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe

Serial  
Serialnummer 6,3 x 6,3mm



J4  
  
ATS-X53290G-C1-R0 NOT CHECKED!!!

Assembly variant	105-6E
Created by	VT
Modified by	
Modified at	2020-04-23
SVN Revision	14946



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1

2

3

4

A

A

B

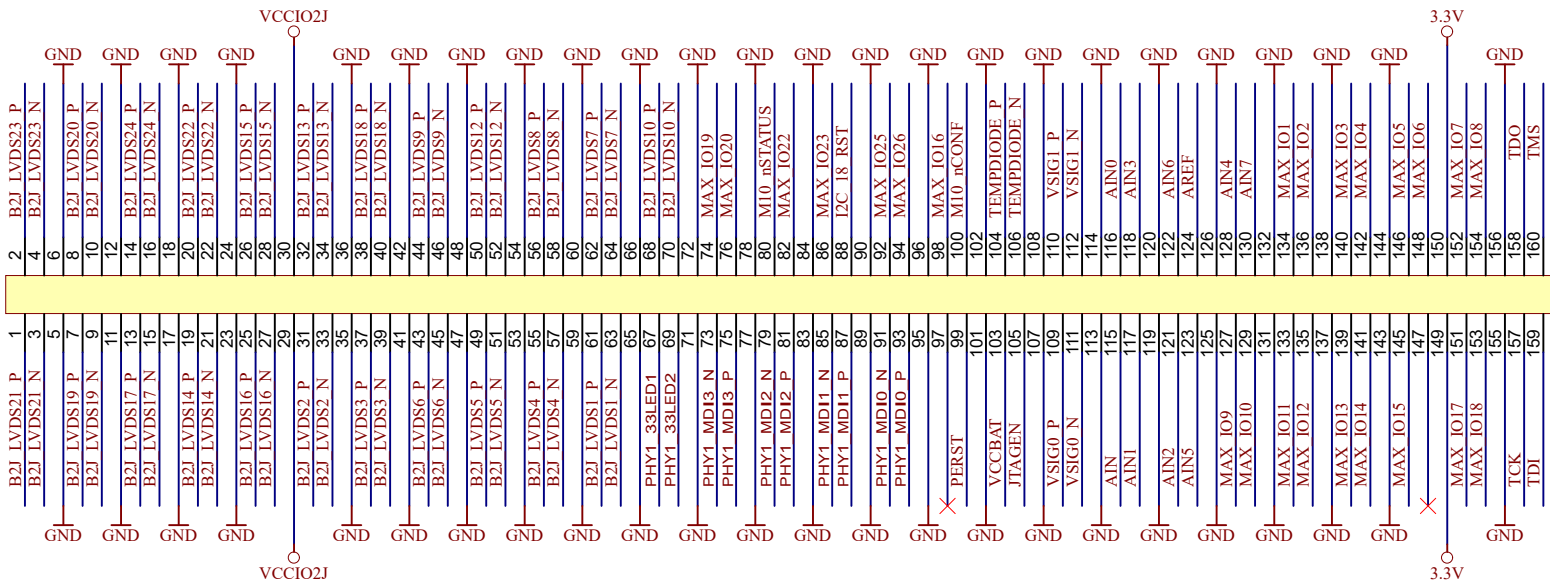
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C

C

D

D



J2  
ST5-80-1.50-L-D-P-TR



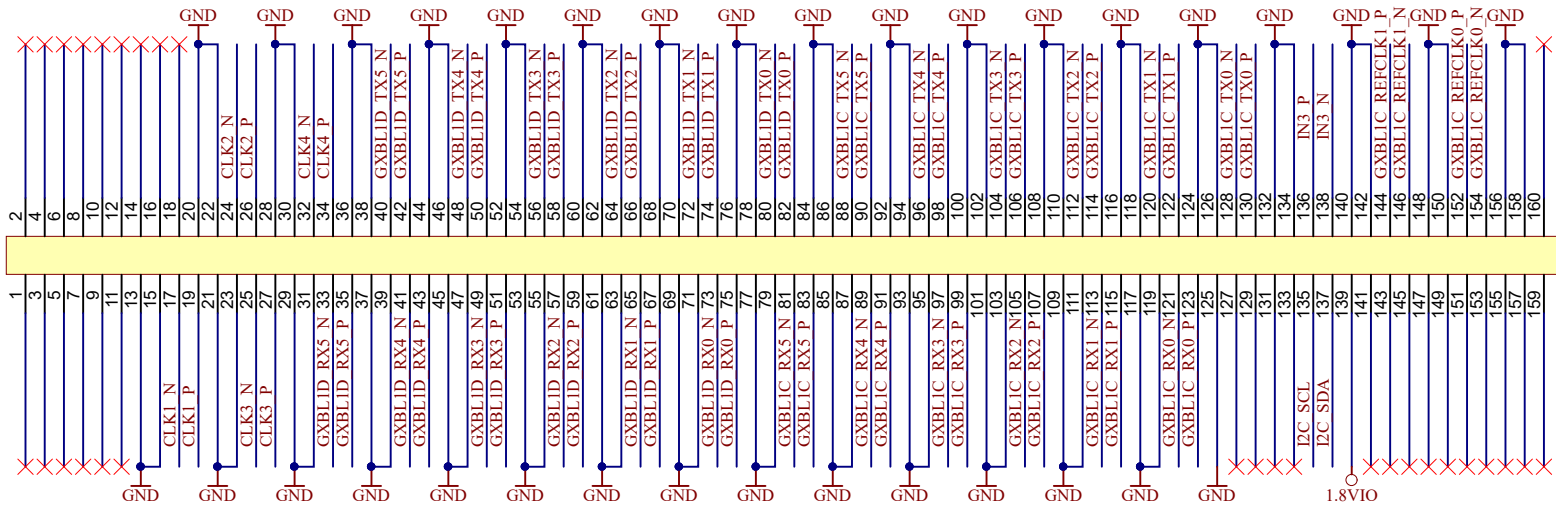
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1

2

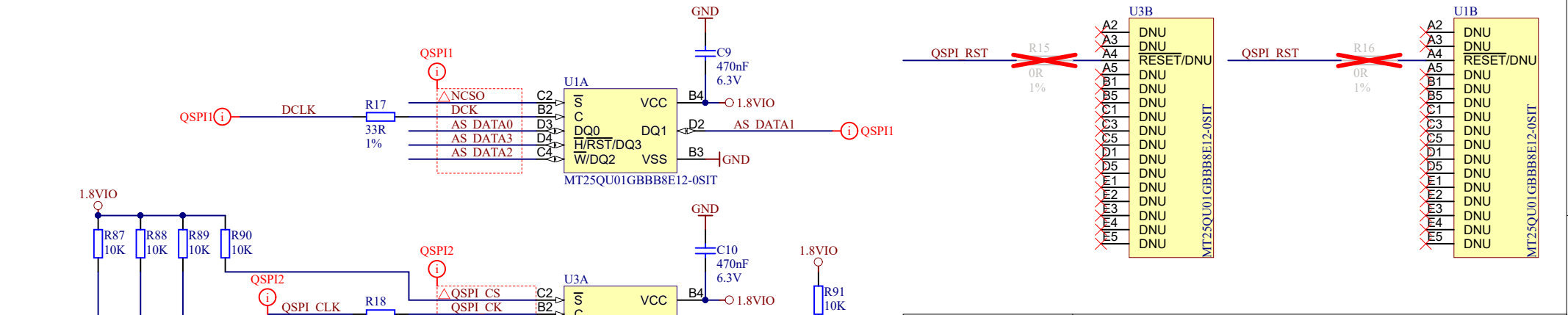
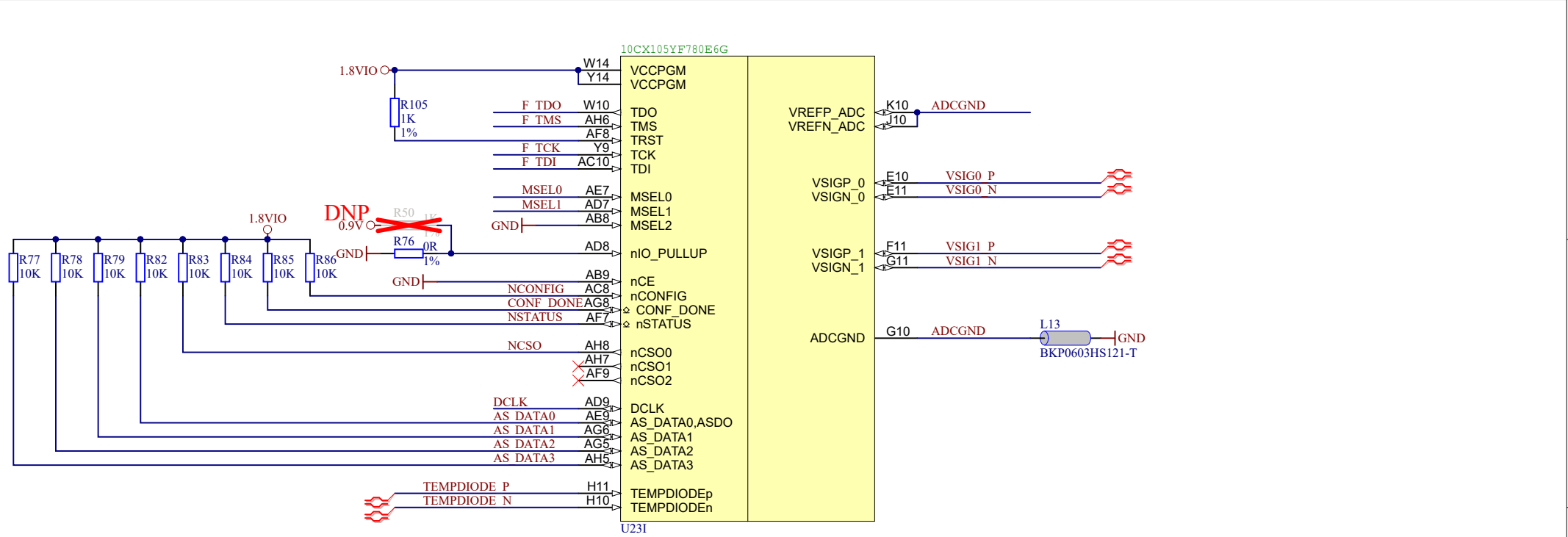
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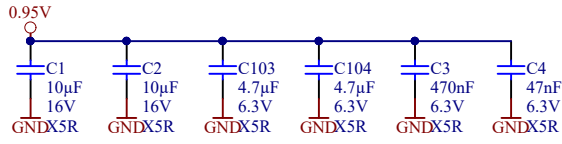
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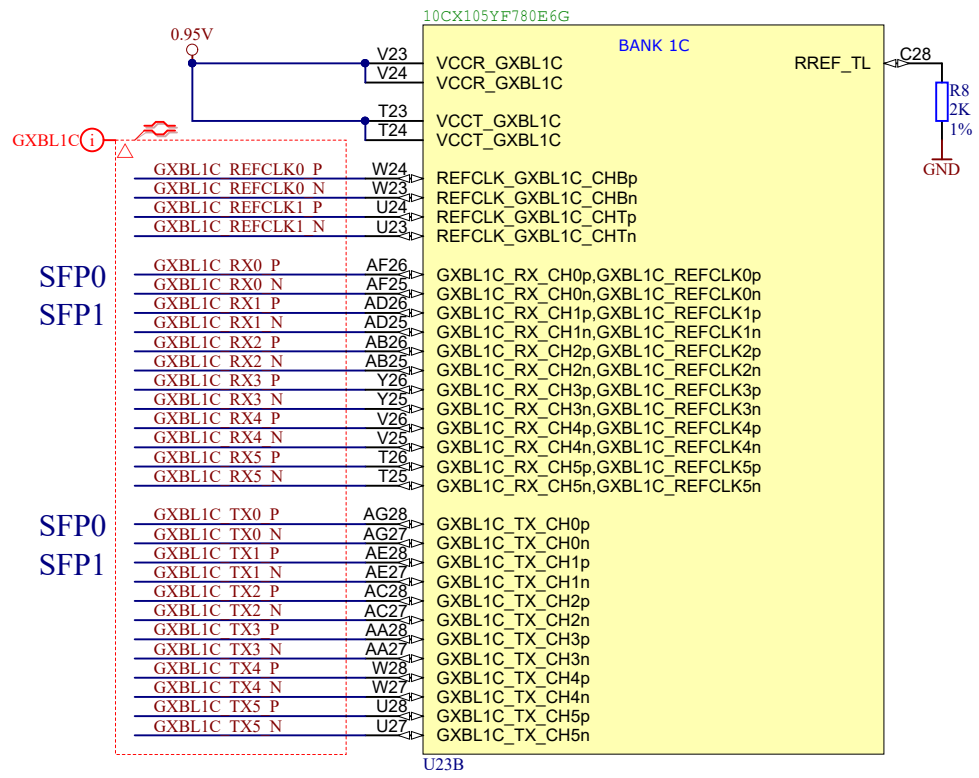
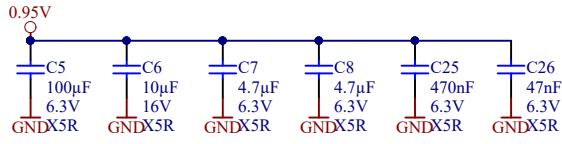


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Placed at VCCT\_GXB pins



Placed at VCCR\_GXB pins

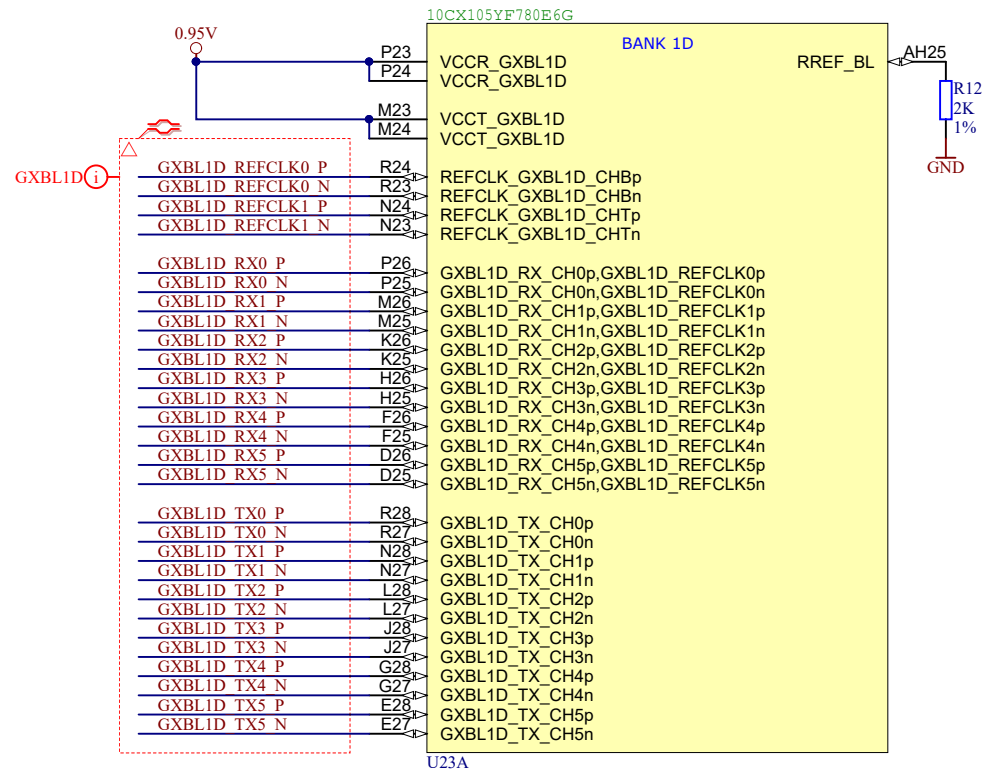



SFP0  
SFP1

SFP0  
SFP1



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A

A

B

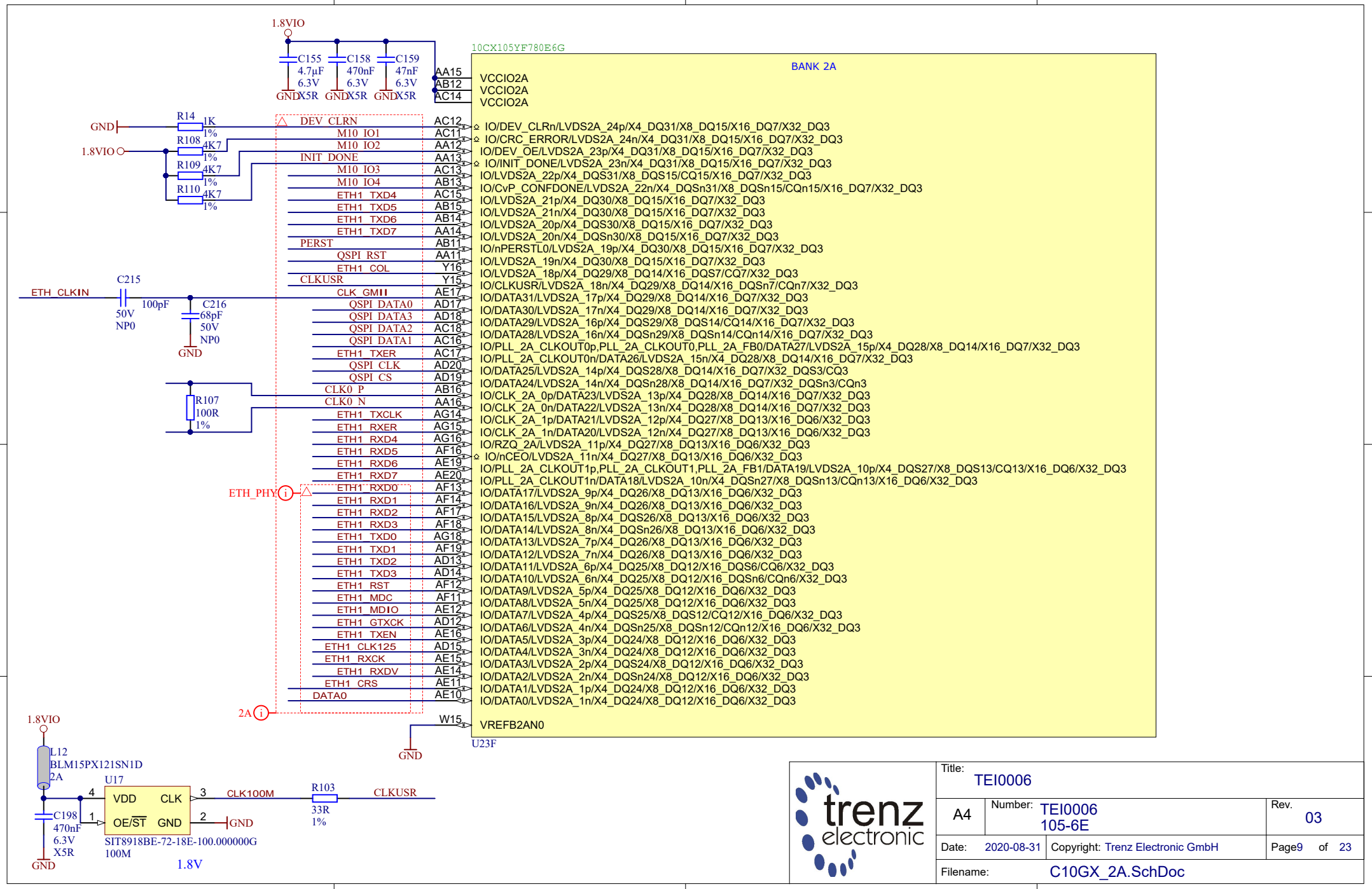
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C

C

D

D



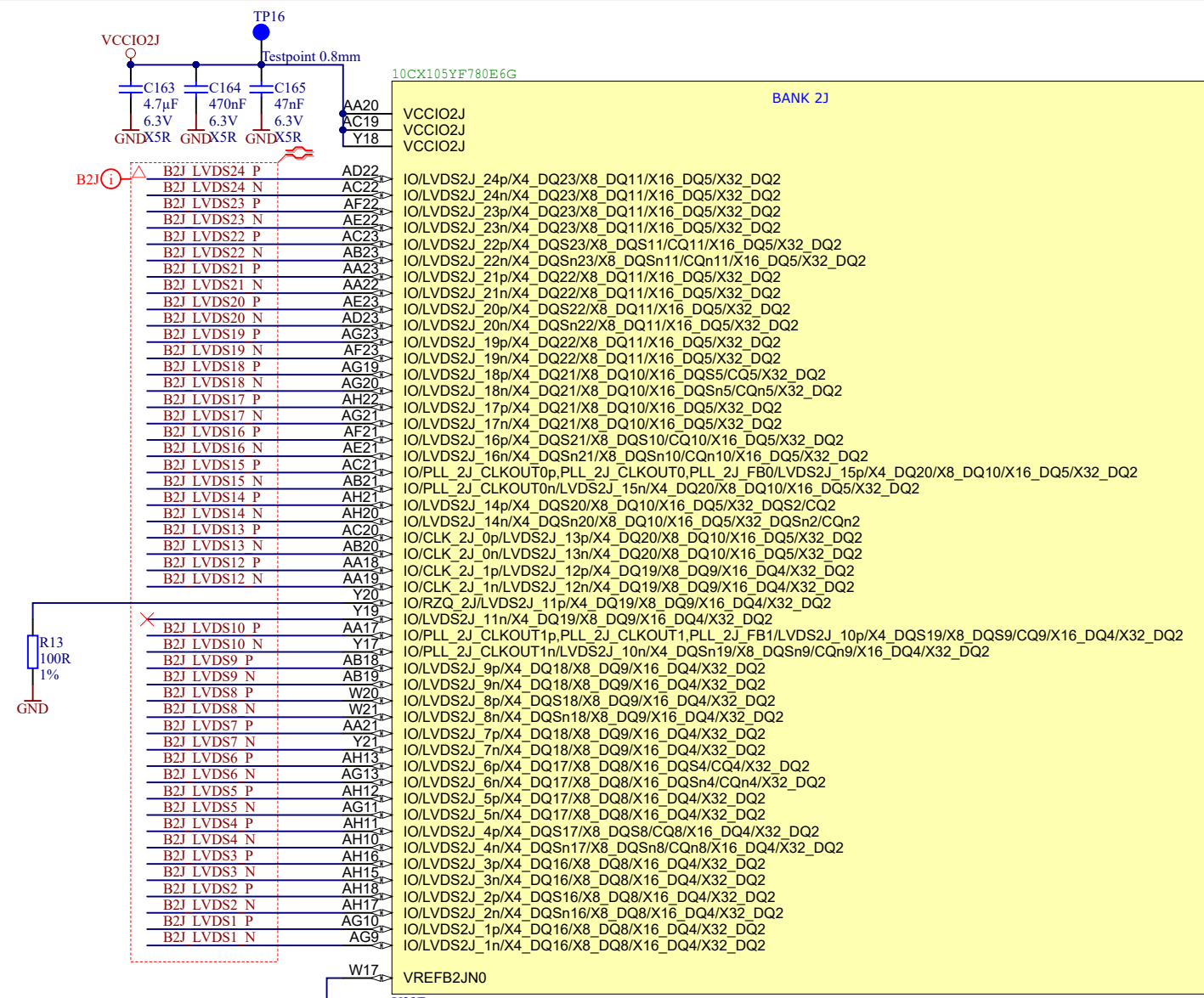

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BANK 2A

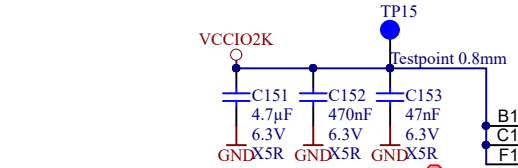
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AB12	VCCIO2A
AC14	VCCIO2A
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AC11	IO/CRC_ERROR/LVDS2A_24n/X4_DQ31/X8_DQ15/X16_DQ7/X32_DQ3
AA12	IO/DEV_OE/LVDS2A_23p/X4_DQ31/X8_DQ15/X16_DQ7/X32_DQ3
AA13	IO/INIT_DONE/LVDS2A_23n/X4_DQ31/X8_DQ15/X16_DQ7/X32_DQ3
AC13	IO/LVDS2A_22p/X4_DQS31/X8_DQS15/CQ15/X16_DQ7/X32_DQ3
AB13	IO/CvP_CONFDONE/LVDS2A_22n/X4_DQSn31/X8_DQSn15/CQn15/X16_DQ7/X32_DQ3
AC15	IO/LVDS2A_21p/X4_DQ30/X8_DQ15/X16_DQ7/X32_DQ3
AB15	IO/LVDS2A_21n/X4_DQ30/X8_DQ15/X16_DQ7/X32_DQ3
AB14	IO/LVDS2A_20p/X4_DQS30/X8_DQ15/X16_DQ7/X32_DQ3
AA14	IO/LVDS2A_20n/X4_DQSn30/X8_DQ15/X16_DQ7/X32_DQ3
AB11	IO/nPERSTL0/LVDS2A_19p/X4_DQ30/X8_DQ15/X16_DQ7/X32_DQ3
AA11	IO/LVDS2A_19n/X4_DQ30/X8_DQ15/X16_DQ7/X32_DQ3
Y16	IO/LVDS2A_18p/X4_DQ29/X8_DQ14/X16_DQS7/CQ7/X32_DQ3
Y15	IO/CLKUSR/LVDS2A_18n/X4_DQ29/X8_DQ14/X16_DQSn7/CQn7/X32_DQ3
AE17	IO/DATA31/LVDS2A_17p/X4_DQ29/X8_DQ14/X16_DQ7/X32_DQ3
AD17	IO/DATA30/LVDS2A_17n/X4_DQ29/X8_DQ14/X16_DQ7/X32_DQ3
AD18	IO/DATA29/LVDS2A_16p/X4_DQS29/X8_DQS14/CQ14/X16_DQ7/X32_DQ3
AC18	IO/DATA28/LVDS2A_16n/X4_DQS29/X8_DQS14/CQn14/X16_DQ7/X32_DQ3
AC16	IO/PLL_2A_CLKOUT0p/PLL_2A_CLKOUT0/PLL_2A_FB0/DATA27/LVDS2A_15p/X4_DQ28/X8_DQ14/X16_DQ7/X32_DQ3
AD20	IO/PLL_2A_CLKOUT0n/DATA26/LVDS2A_15n/X4_DQ28/X8_DQ14/X16_DQ7/X32_DQ3
AD19	IO/DATA25/LVDS2A_14p/X4_DQS28/X8_DQ14/X16_DQ7/X32_DQS3/CQ3
AB16	IO/DATA24/LVDS2A_14n/X4_DQSn28/X8_DQ14/X16_DQ7/X32_DQSn3/CQn3
AA16	IO/CLK_2A_0p/DATA23/LVDS2A_13p/X4_DQ28/X8_DQ14/X16_DQ7/X32_DQ3
AG14	IO/CLK_2A_0n/DATA22/LVDS2A_13n/X4_DQ28/X8_DQ14/X16_DQ7/X32_DQ3
AG15	IO/CLK_2A_1p/DATA21/LVDS2A_12p/X4_DQ27/X8_DQ13/X16_DQ6/X32_DQ3
AG16	IO/CLK_2A_1n/DATA20/LVDS2A_12n/X4_DQ27/X8_DQ13/X16_DQ6/X32_DQ3
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AE19	IO/nCEO/LVDS2A_11n/X4_DQ27/X8_DQ13/X16_DQ6/X32_DQ3
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AF13	IO/PLL_2A_CLKOUT1n/DATA18/LVDS2A_10n/X4_DQSn27/X8_DQSn13/CQn13/X16_DQ6/X32_DQ3
AF14	IO/DATA17/LVDS2A_9p/X4_DQ26/X8_DQ13/X16_DQ6/X32_DQ3
AF17	IO/DATA16/LVDS2A_9n/X4_DQ26/X8_DQ13/X16_DQ6/X32_DQ3
AF18	IO/DATA15/LVDS2A_8p/X4_DQS26/X8_DQ13/X16_DQ6/X32_DQ3
AG18	IO/DATA14/LVDS2A_8n/X4_DQSn26/X8_DQ13/X16_DQ6/X32_DQ3
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AF12	IO/DATA10/LVDS2A_6n/X4_DQ25/X8_DQ12/X16_DQSn6/CQn6/X32_DQ3
AF11	IO/DATA9/LVDS2A_5p/X4_DQ25/X8_DQ12/X16_DQ6/X32_DQ3
AE12	IO/DATA8/LVDS2A_5n/X4_DQ25/X8_DQ12/X16_DQ6/X32_DQ3
AD12	IO/DATA7/LVDS2A_4p/X4_DQS25/X8_DQS12/CQ12/X16_DQ6/X32_DQ3
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AE14	IO/DATA3/LVDS2A_2p/X4_DQS24/X8_DQ12/X16_DQ6/X32_DQ3
AE11	IO/DATA2/LVDS2A_2n/X4_DQSn24/X8_DQ12/X16_DQ6/X32_DQ3
AE10	IO/DATA1/LVDS2A_1p/X4_DQ24/X8_DQ12/X16_DQ6/X32_DQ3
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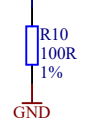
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BANK 2K

B2K i



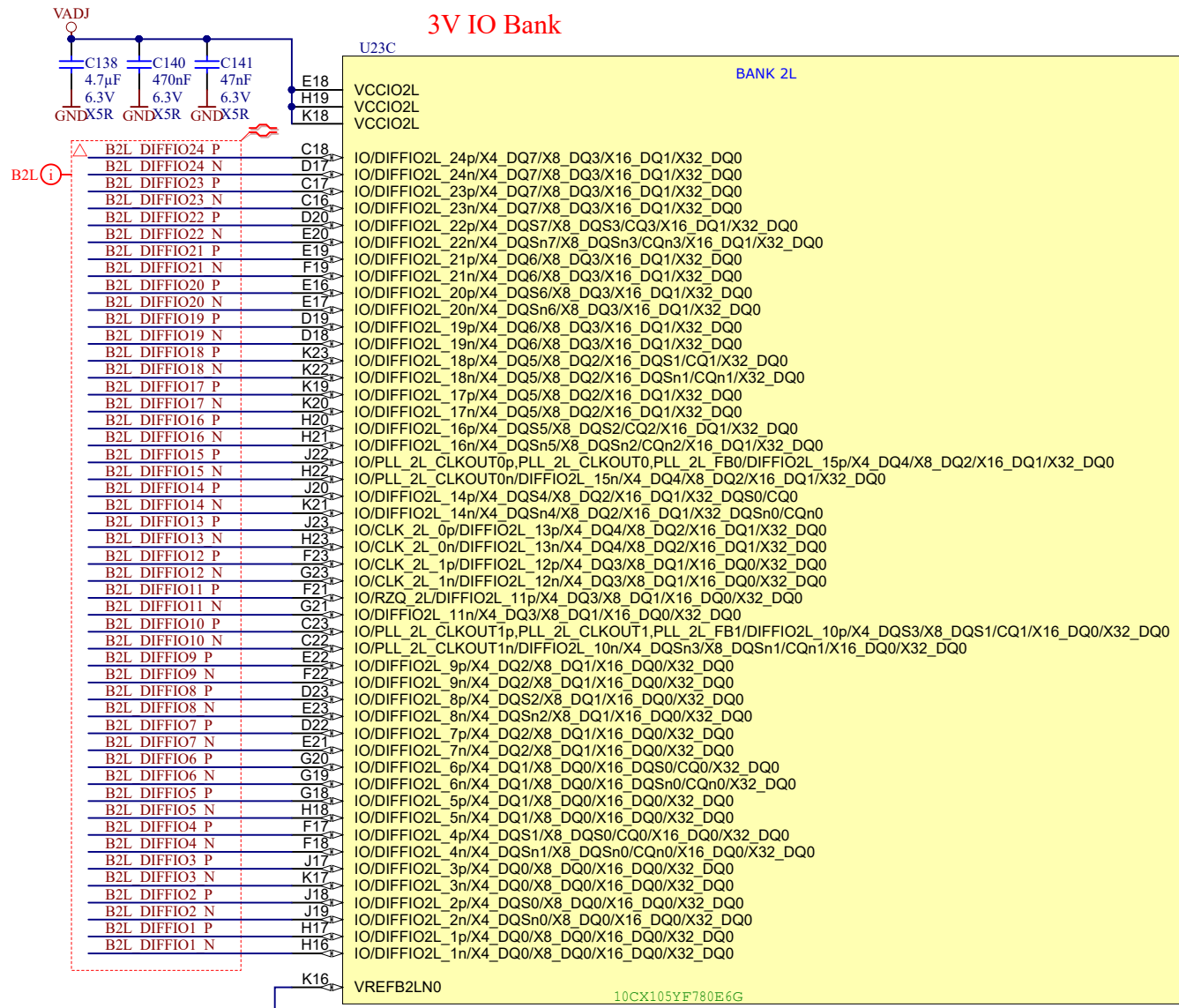
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B2K LVDS18 P	B26
B2K LVDS18 N	B25
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B2K LVDS17 N	A22
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B2K LVDS13 N	A23
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C14	
F15	
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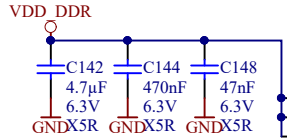
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10CX105YF780E6G

BANK 3A

DDR\_DATA1 (i)

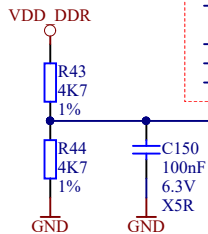

DDR\_DATA0 (i)

DDR\_DATA2 (i)

- △ DDR3-D9
- DDR3-D10
- DDR3-D12
- DDR3-DQS1 P
- DDR3-DQS1 N
- DDR3-D11
- DDR3-D8
- DDR3-D15
- DDR3-D13
- DDR3-D14
- DDR3-DM1
- △ DDR3-DM0
- DDR3-D0
- DDR3-D5
- DDR3-D3
- DDR3-DQS0 P
- DDR3-DQS0 N
- DDR3-D4
- DDR3-D7
- DDR3-D6
- DDR3-D1
- DDR3-D2
- △ DDR3-D21
- DDR3-DM2
- DDR3-D18
- DDR3-D19
- DDR3-DQS2 P
- DDR3-DQS2 N
- DDR3-D22
- DDR3-D16
- DDR3-D23
- DDR3-D17
- DDR3-D20

AA5	VCCIO3A
W6	VCCIO3A
Y8	VCCIO3A
AF6	IO/LVDS3A_22p/X4_DQS63/X8_DQS31/CQ31/X16_DQ15/X32_DQ7
AE6	IO/LVDS3A_22n/X4_DQSn63/X8_DQSn31/CQn31/X16_DQ15/X32_DQ7
AC6	IO/LVDS3A_21p/X4_DQ62/X8_DQ31/X16_DQ15/X32_DQ7
AC7	IO/LVDS3A_21n/X4_DQ62/X8_DQ31/X16_DQ15/X32_DQ7
AE4	IO/LVDS3A_20p/X4_DQS62/X8_DQ31/X16_DQ15/X32_DQ7
AD4	IO/LVDS3A_20n/X4_DQSn62/X8_DQ31/X16_DQ15/X32_DQ7
AH2	IO/LVDS3A_19p/X4_DQ62/X8_DQ31/X16_DQ15/X32_DQ7
AH3	IO/LVDS3A_19n/X4_DQ62/X8_DQ31/X16_DQ15/X32_DQ7
AG3	IO/LVDS3A_18p/X4_DQ61/X8_DQ30/X16_DQS15/CQ15/X32_DQ7
AF3	IO/LVDS3A_18n/X4_DQ61/X8_DQ30/X16_DQSn15/CQn15/X32_DQ7
AG1	IO/LVDS3A_17p/X4_DQ61/X8_DQ30/X16_DQ15/X32_DQ7
AF1	IO/LVDS3A_17n/X4_DQ61/X8_DQ30/X16_DQ15/X32_DQ7
AE2	IO/LVDS3A_16p/X4_DQS61/X8_DQS30/CQ30/X16_DQ15/X32_DQ7
AD2	IO/LVDS3A_16n/X4_DQSn61/X8_DQSn30/CQn30/X16_DQ15/X32_DQ7
AC1	IO/PLL_3A_CLKOUT0p,PLL_3A_CLKOUT0,PLL_3A_FB0/LVDS3A_15p/X4_DQ60/X8_DQ30/X16_DQ15/X32_DQ7
AC2	IO/PLL_3A_CLKOUT0n/LVDS3A_15n/X4_DQ60/X8_DQ30/X16_DQ15/X32_DQ7
AE1	IO/LVDS3A_14p/X4_DQS60/X8_DQ30/X16_DQ15/X32_DQS7/CQ7
AF2	IO/LVDS3A_14n/X4_DQSn60/X8_DQ30/X16_DQ15/X32_DQSn7/CQn7
AD3	IO/CLK_3A_0p/LVDS3A_13p/X4_DQ60/X8_DQ30/X16_DQ15/X32_DQ7
AC3	IO/CLK_3A_0n/LVDS3A_13n/X4_DQ60/X8_DQ30/X16_DQ15/X32_DQ7
AA6	IO/CLK_3A_1p/LVDS3A_12p/X4_DQ59/X8_DQ29/X16_DQ14/X32_DQ7
AA7	IO/CLK_3A_1n/LVDS3A_12n/X4_DQ59/X8_DQ29/X16_DQ14/X32_DQ7
AA3	IO/RZQ_3A/LVDS3A_11p/X4_DQ59/X8_DQ29/X16_DQ14/X32_DQ7
AA4	IO/LVDS3A_11n/X4_DQ59/X8_DQ29/X16_DQ14/X32_DQ7
AA2	IO/PLL_3A_CLKOUT1p,PLL_3A_CLKOUT1,PLL_3A_FB1/LVDS3A_10p/X4_DQS59/X8_DQS29/CQ29/X16_DQ14/X32_DQ7
AB3	IO/PLL_3A_CLKOUT1n/LVDS3A_10n/X4_DQSn59/X8_DQSn29/CQn29/X16_DQ14/X32_DQ7
AB6	IO/LVDS3A_9p/X4_DQ58/X8_DQ29/X16_DQ14/X32_DQ7
AB5	IO/LVDS3A_9n/X4_DQSn58/X8_DQSn29/X16_DQ14/X32_DQ7
AB1	IO/LVDS3A_8p/X4_DQS58/X8_DQ29/X16_DQ14/X32_DQ7
AA1	IO/LVDS3A_8n/X4_DQSn58/X8_DQ29/X16_DQ14/X32_DQ7
AB4	IO/LVDS3A_7p/X4_DQ58/X8_DQ29/X16_DQ14/X32_DQ7
AB4	IO/LVDS3A_7n/X4_DQSn58/X8_DQSn29/X16_DQ14/X32_DQ7
AA9	IO/LVDS3A_6p/X4_DQ57/X8_DQ28/X16_DQS14/CQ14/X32_DQ7
AA8	IO/LVDS3A_6n/X4_DQSn57/X8_DQSn28/X16_DQ14/X32_DQ7
Y1	IO/LVDS3A_5p/X4_DQ57/X8_DQ28/X16_DQ14/X32_DQ7
Y2	IO/LVDS3A_5n/X4_DQSn57/X8_DQSn28/X16_DQ14/X32_DQ7
W5	IO/LVDS3A_4p/X4_DQS57/X8_DQS28/CQ28/X16_DQ14/X32_DQ7
Y5	IO/LVDS3A_4n/X4_DQSn57/X8_DQSn28/CQn28/X16_DQ14/X32_DQ7
Y7	IO/LVDS3A_3p/X4_DQ56/X8_DQ28/X16_DQ14/X32_DQ7
Y6	IO/LVDS3A_3n/X4_DQSn56/X8_DQSn28/X16_DQ14/X32_DQ7
W8	IO/LVDS3A_2p/X4_DQS56/X8_DQ28/X16_DQ14/X32_DQ7
W7	IO/LVDS3A_2n/X4_DQSn56/X8_DQSn28/X16_DQ14/X32_DQ7
W4	IO/LVDS3A_1p/X4_DQ56/X8_DQ28/X16_DQ14/X32_DQ7
Y4	IO/LVDS3A_1n/X4_DQSn56/X8_DQSn28/X16_DQ14/X32_DQ7

VREFB3A0 U23H

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A

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C

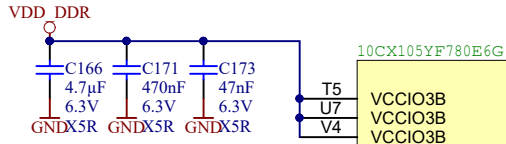
D

A

B

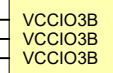
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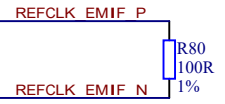
10CX105YF780E6G

BANK 3B

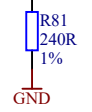


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IO/LVDS3B_23n/X4_DQ55/X8_DQ27/X16_DQ13/X32_DQ6	IO/LVDS3B_22p/X4_DQS55/X8_DQS27/CQ27/X16_DQ13/X32_DQ6	IO/LVDS3B_22n/X4_DQS55/X8_DQS27/CQ27/X16_DQ13/X32_DQ6
IO/LVDS3B_21p/X4_DQ54/X8_DQ27/X16_DQ13/X32_DQ6	IO/LVDS3B_21n/X4_DQ54/X8_DQ27/X16_DQ13/X32_DQ6	IO/LVDS3B_20p/X4_DQS54/X8_DQ27/X16_DQ13/X32_DQ6
IO/LVDS3B_20n/X4_DQSn54/X8_DQ27/X16_DQ13/X32_DQ6	IO/LVDS3B_19p/X4_DQ54/X8_DQ27/X16_DQ13/X32_DQ6	IO/LVDS3B_19n/X4_DQ54/X8_DQ27/X16_DQ13/X32_DQ6
IO/LVDS3B_18p/X4_DQ53/X8_DQ26/X16_DQS13/CQ13/X32_DQ6	IO/LVDS3B_18n/X4_DQ53/X8_DQ26/X16_DQSn13/CQn13/X32_DQ6	IO/LVDS3B_17p/X4_DQ53/X8_DQ26/X16_DQ13/X32_DQ6
IO/LVDS3B_17n/X4_DQ53/X8_DQ26/X16_DQ13/X32_DQ6	IO/LVDS3B_16p/X4_DQS53/X8_DQS26/CQ26/X16_DQ13/X32_DQ6	IO/PLL_3B_CLKOUT0p.PLL_3B_CLKOUT0.PLL_3B_FB0/LVDS3B_15p/X4_DQ52/X8_DQ26/X16_DQ13/X32_DQ6
IO/PLL_3B_CLKOUT0n/LVDS3B_15n/X4_DQ52/X8_DQ26/X16_DQ13/X32_DQ6	IO/LVDS3B_14p/X4_DQS52/X8_DQ26/X16_DQ13/X32_DQS6/CQ6	IO/LVDS3B_14n/X4_DQSn52/X8_DQ26/X16_DQ13/X32_DQSn6/CQn6
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IO/CLK_3B_1n/LVDS3B_12n/X4_DQ51/X8_DQ25/X16_DQ12/X32_DQ6	IO/RZQ_3B/LVDS3B_11p/X4_DQ51/X8_DQ25/X16_DQ12/X32_DQ6	IO/LVDS3B_11n/X4_DQ51/X8_DQ25/X16_DQ12/X32_DQ6
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IO/LVDS3B_9n/X4_DQ50/X8_DQ25/X16_DQ12/X32_DQ6	IO/LVDS3B_8p/X4_DQS50/X8_DQ25/X16_DQ12/X32_DQ6	IO/LVDS3B_8n/X4_DQSn50/X8_DQ25/X16_DQ12/X32_DQ6
IO/LVDS3B_7p/X4_DQ50/X8_DQ25/X16_DQ12/X32_DQ6	IO/LVDS3B_7n/X4_DQ50/X8_DQ25/X16_DQ12/X32_DQ6	IO/LVDS3B_6p/X4_DQ49/X8_DQ24/X16_DQS12/CQ12/X32_DQ6
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IO/LVDS3B_1p/X4_DQ48/X8_DQ24/X16_DQ12/X32_DQ6	IO/LVDS3B_1n/X4_DQ48/X8_DQ24/X16_DQ12/X32_DQ6	

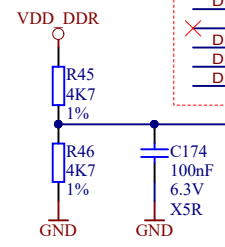
U23G



DDR\_ADDR\_CMD



DDR\_DATA3



VREFB3B



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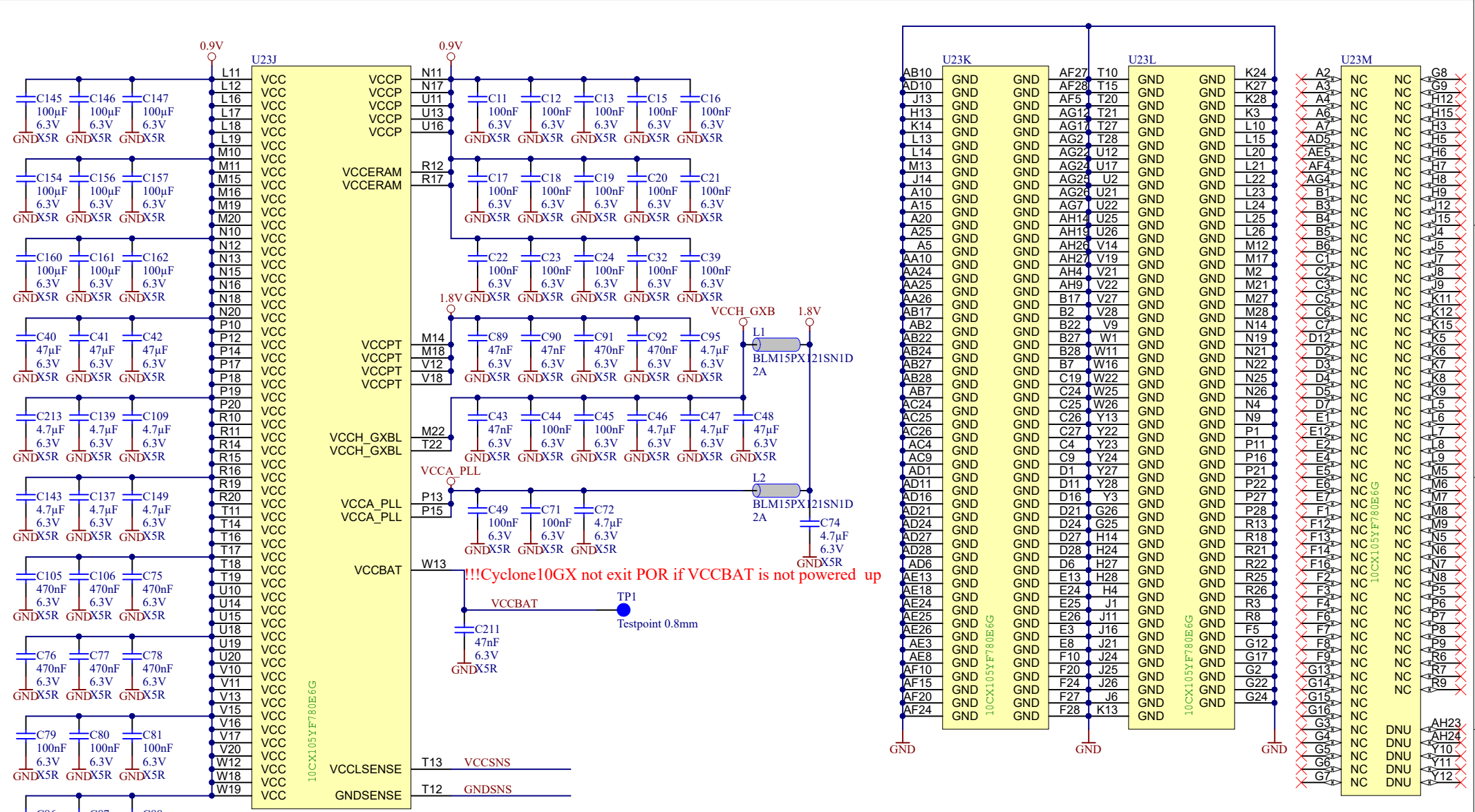
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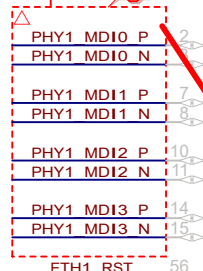
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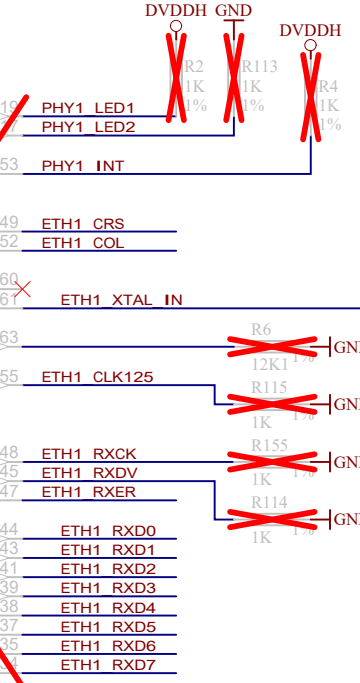
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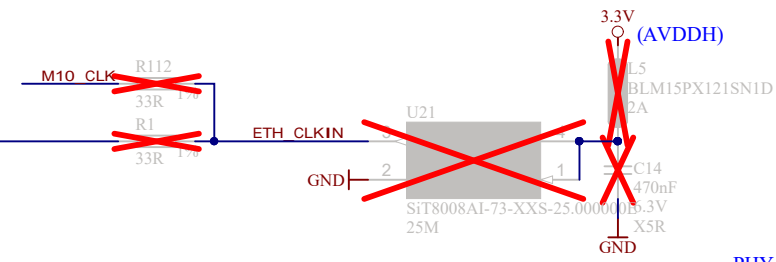
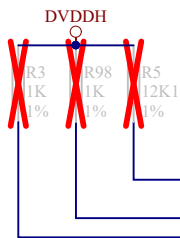
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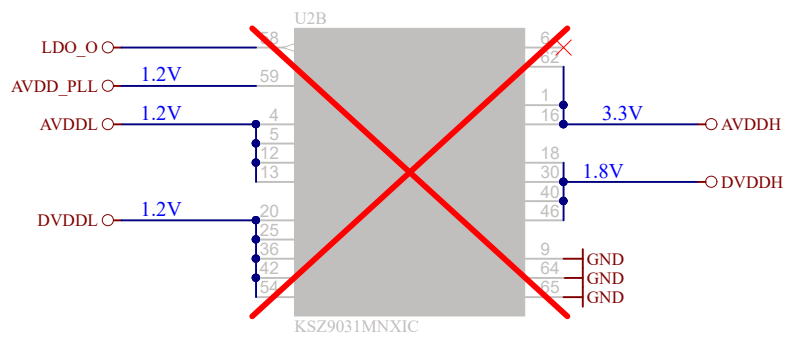
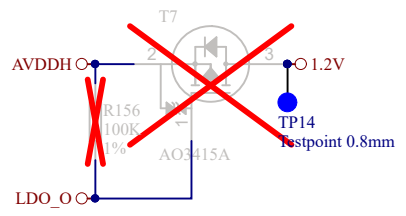
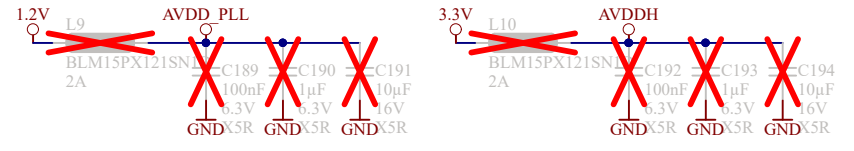
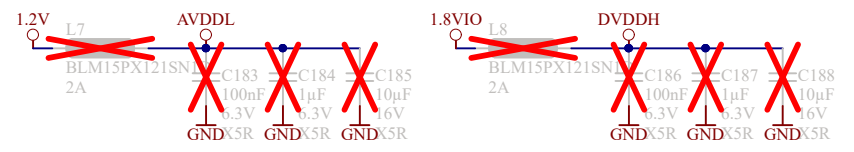
U2A



KSZ9031MNXIC

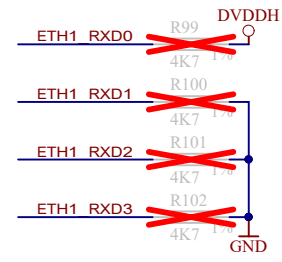


PHY Address: 0001



KSZ9031MNXIC

MODE: 0001 -> GMII/MII mode



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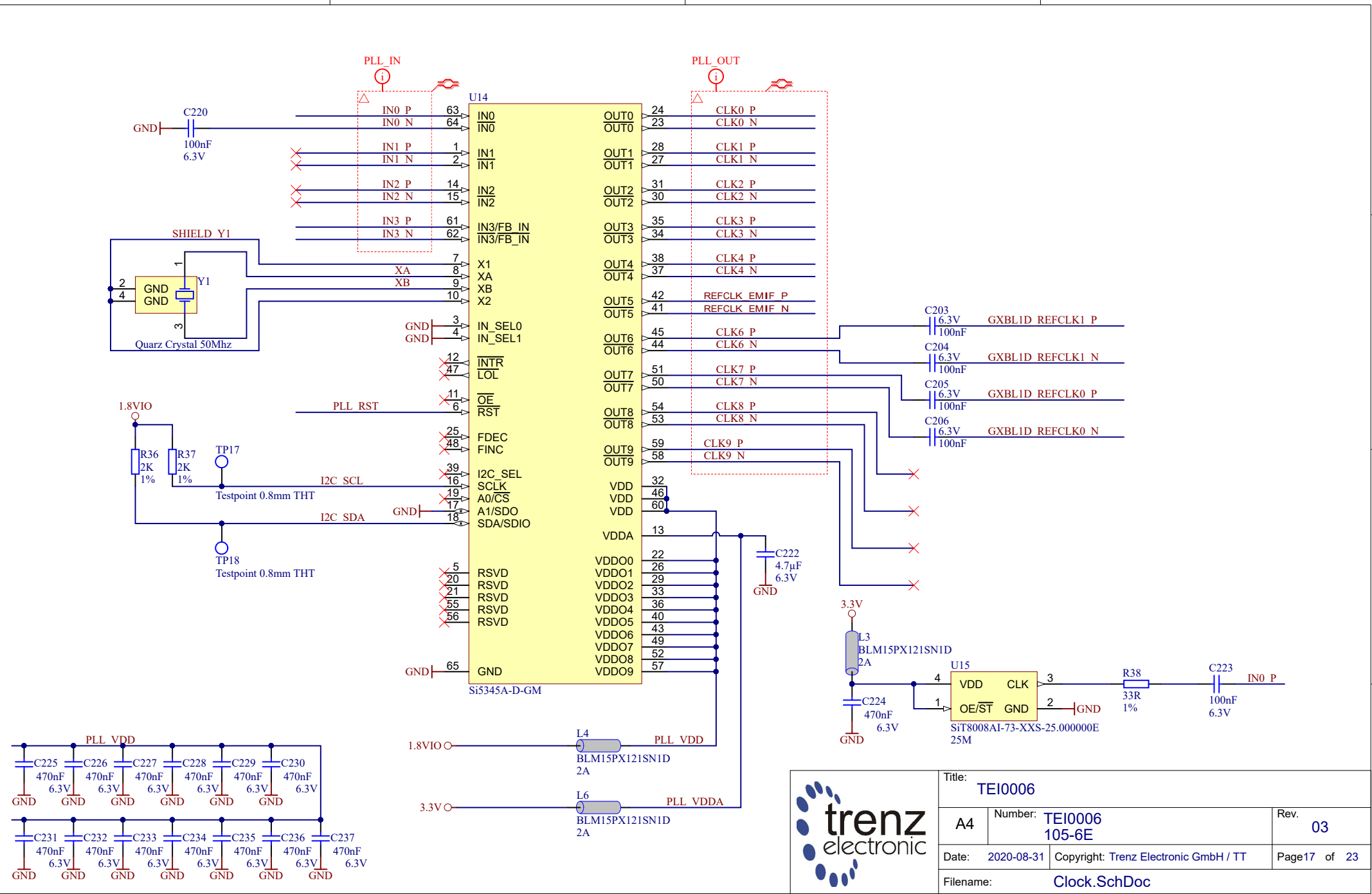
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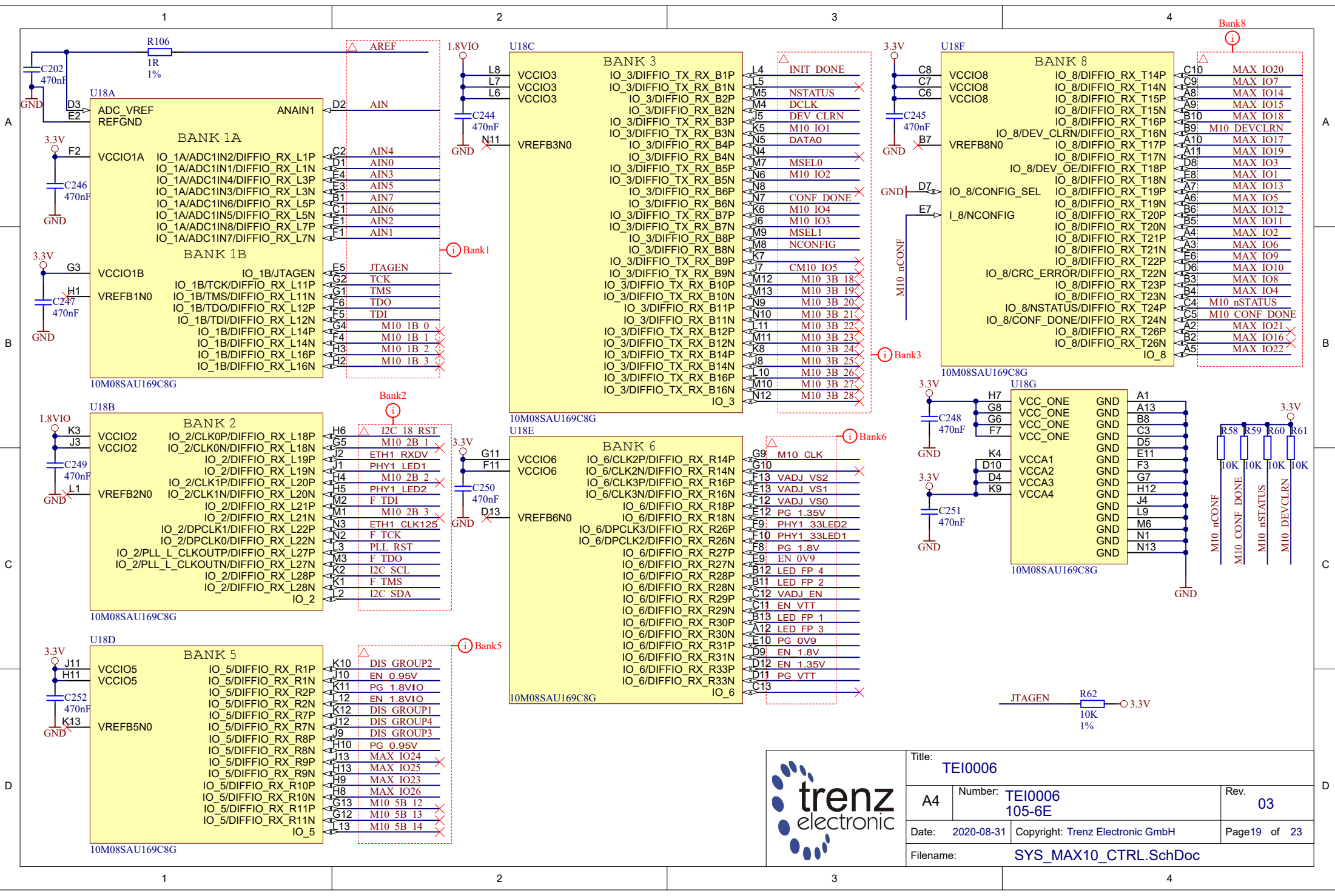
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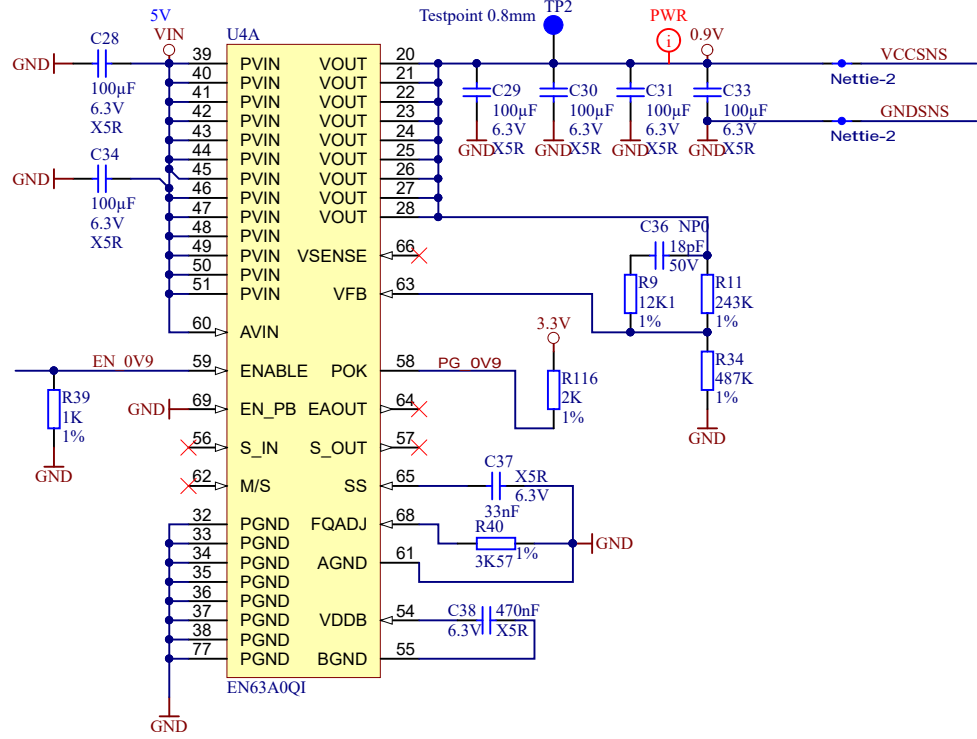
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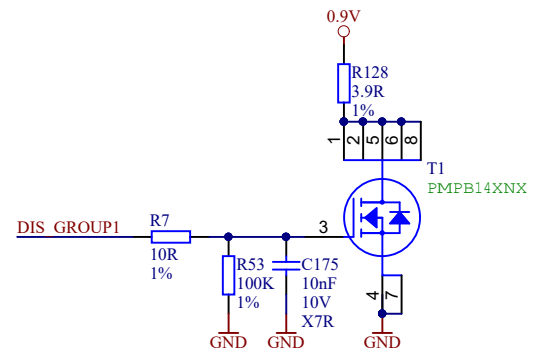
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Filename: <b>SYS_MAX10_CTRL.SchDoc</b>		



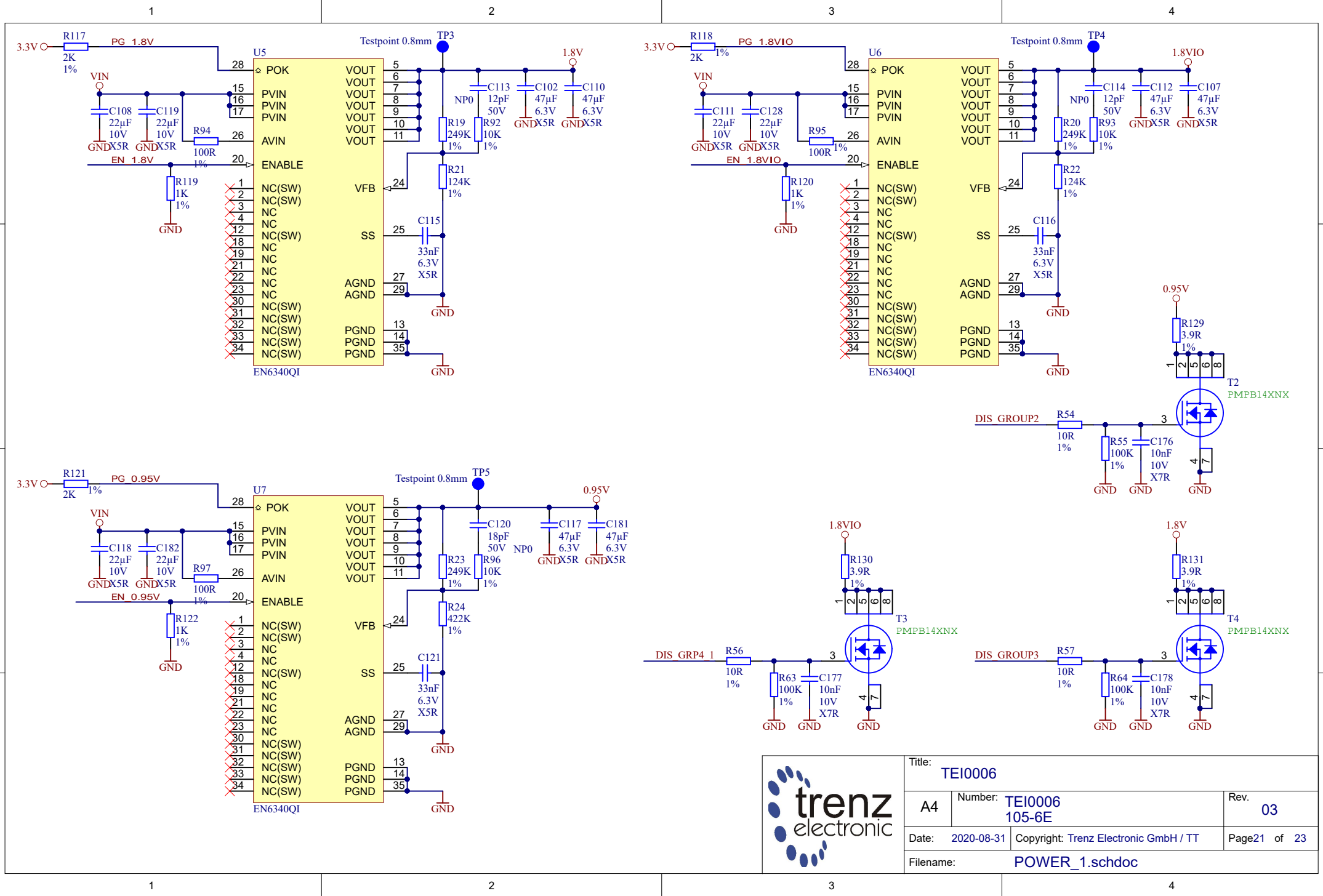
U4B

1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC	30
6	NC	NC(SW)	31
7	NC	NC(SW)	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC	68
11	NC	NC(SW)	70
12	NC	NC(SW)	71
13	NC	NC	72
14	NC	NC	73
15	NC	NC	74
16	NC	NC	75
	NC	NC	76

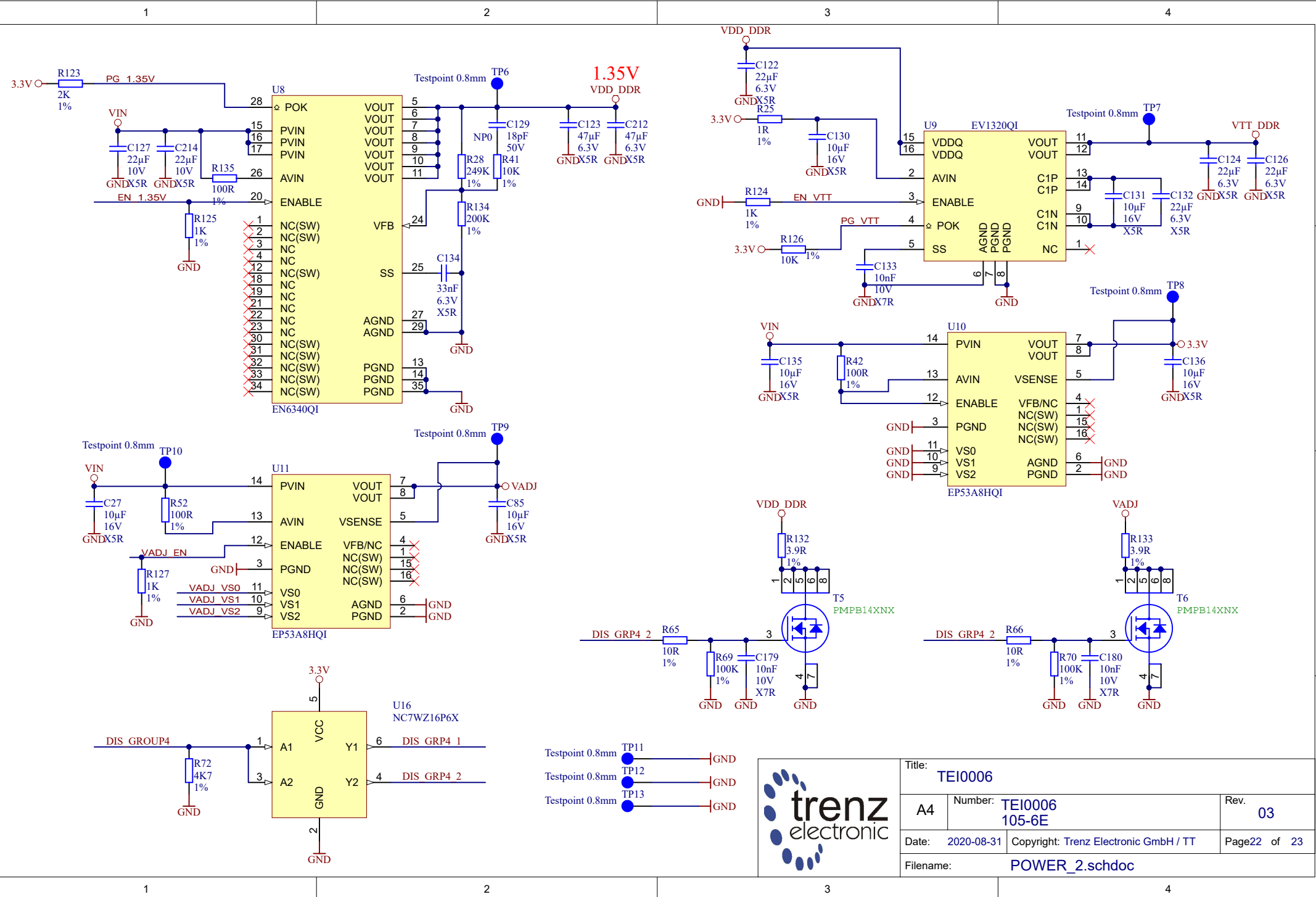
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VT: Initial Rev (07.2018)

Changes from REV01 to REV02:


- 1) VT: added MEMS 100MHz clock oscillator to CLKUSR
- 2) VT: remove CLKUSR from J2
- 3) VT: replaced Si510 to SiT8008/CM3225-4pad
- 4) VT: remove DEVCLRN from J2, added pull-up
- 5) VT: remove M10\_nSTATUS from J2, added pull-up
- 6) VT: Added optional CryptoAuthentication chip U19 (DNP)

Changes from REV02 to REV03 (08.2020):

- 1) VT: fixed CLK connections ( CLK's from FMC (on Baseboard) directly connected to GXBL1C bank)
- 2) VT: added heatsink
- 3) VT: full upd LIB
- 4) VT: added Legal Notices sheet

2020-12-23

- 5) VY: replaced not available transistors T1-T6 AON2240 to PMPB14XNX

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