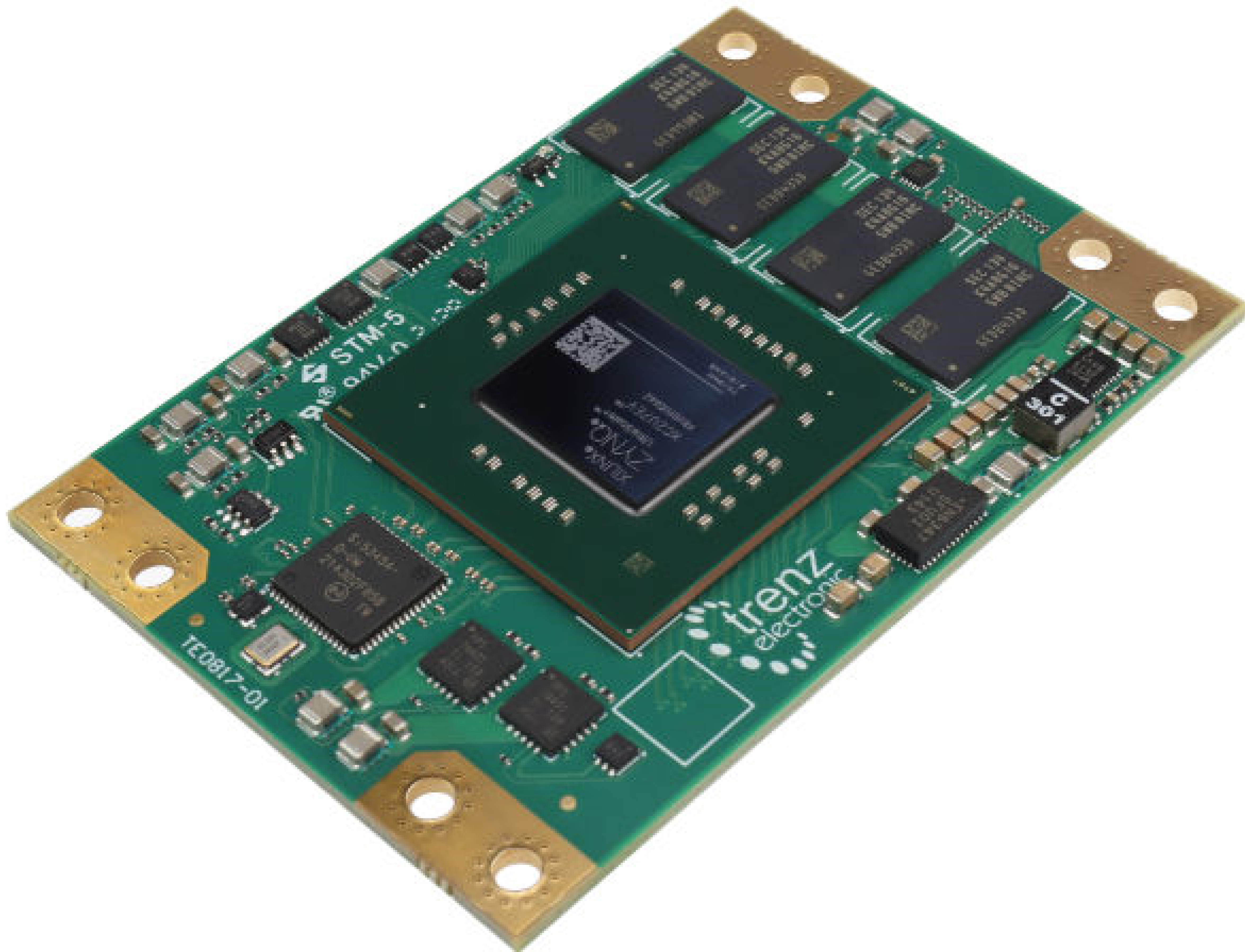
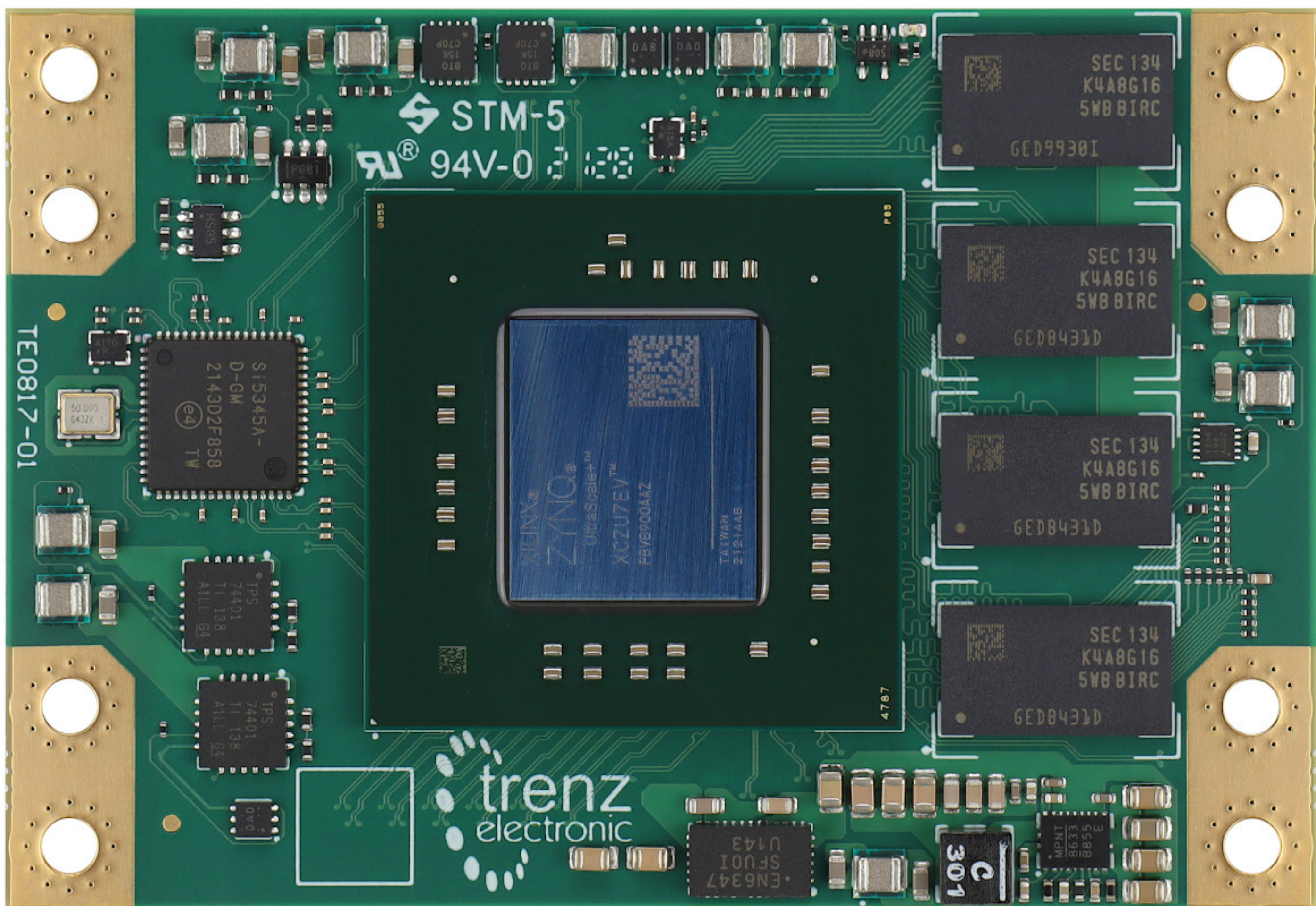
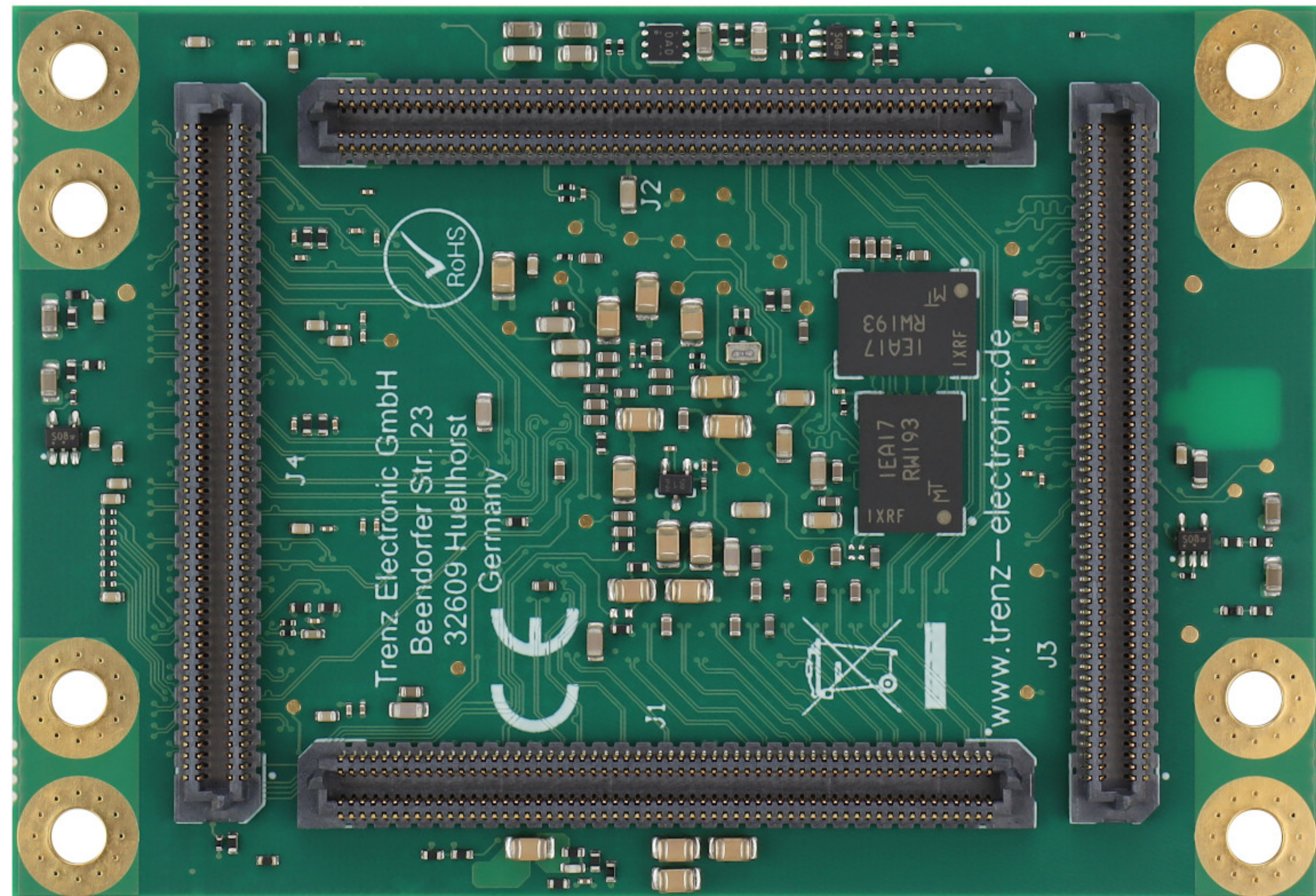
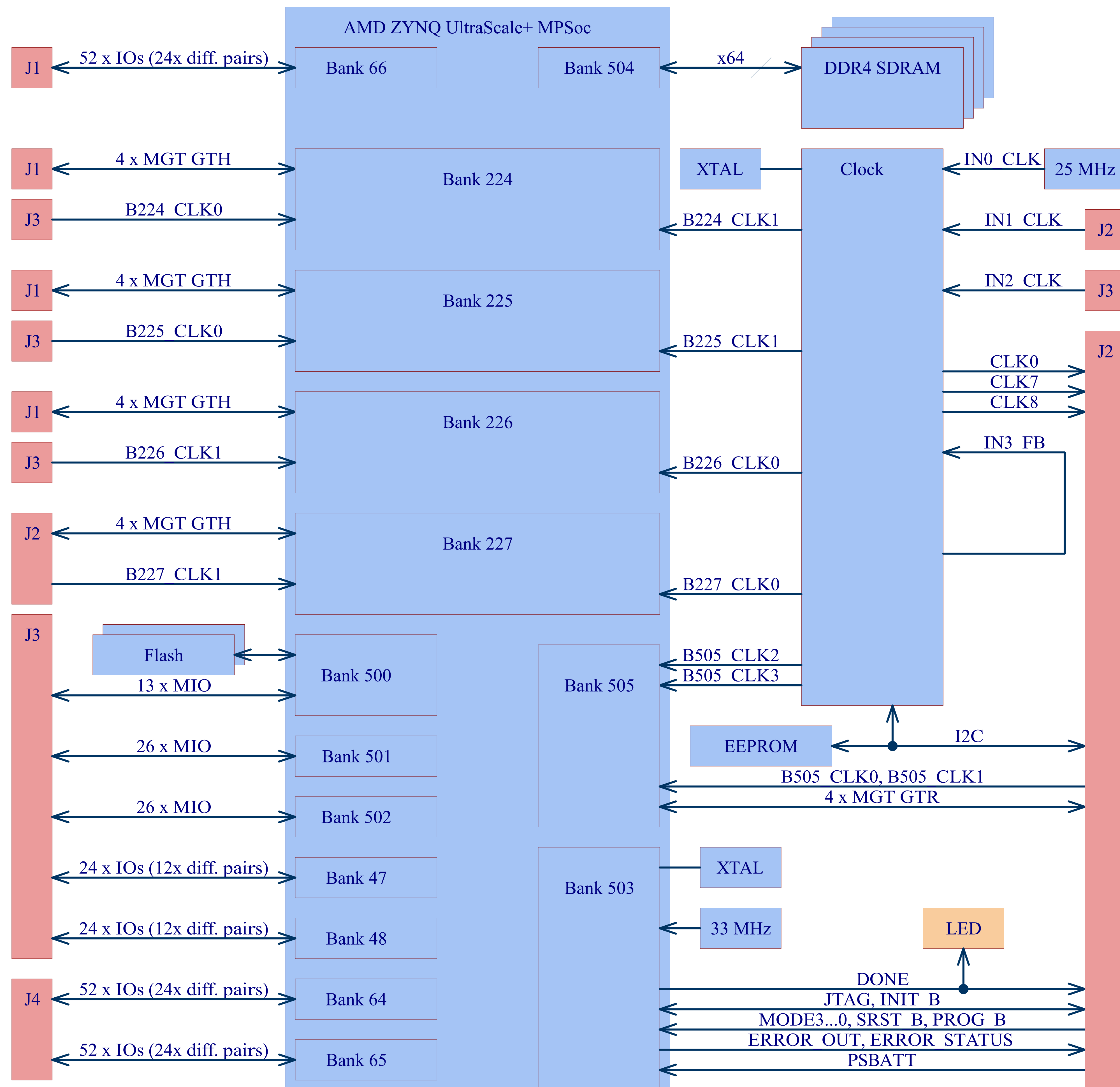


	1	2	3	4												
A					A											
B					B											
C					C											
D	Regarding the usage of our schematics and alike documentation for Trenz module TE0817. Project is protected under copyright and we strongly and strictly prohibit the reverse engineering or recreation, even if the design is just adapted or modified. TE0817 is protected under such right and in case of plagiarism we will have to do anything necessary in order to protect our assets. Schematics and other handouts serve for informational purposes only!		<table><tr><td colspan="2">Title: TE0817</td><td rowspan="4">Rev. 02</td></tr><tr><td>A4</td><td>Number: TE0817 7DI61-A</td></tr><tr><td>Date: 27.08.2024</td><td colspan="2" rowspan="2">Copyright: Trenz Electronic GmbH</td></tr><tr><td colspan="3">Filename: Legal Notices Modules.SchDoc</td></tr></table>		Title: TE0817		Rev. 02	A4	Number: TE0817 7DI61-A	Date: 27.08.2024	Copyright: Trenz Electronic GmbH		Filename: Legal Notices Modules.SchDoc			D
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Filename: Legal Notices Modules.SchDoc																
	1	2	3	4												



Supported Voltage Ranges:

Power Rail	Direction	Range	Tolerance	Description	Note
3.3VIN	IN	3.3 V	+/- 5 %	Micromodule Power	-
PL_DCIN	IN	3.3 V - 5.0 V	+/- 5 %	Micromodule Power	Programmable Logic
LP_DCDC	IN	3.3 V - 5.0 V	+/- 3 %	Micromodule Power	Low-Power Domain
GT_DCDC	IN	3.3 V - 5.0 V	+/- 3 %	Micromodule Power	GTH/GTY Transceiver
DCDCIN	IN	3.3 V - 5.0 V	+/- 5 %	Micromodule Power	Full-Power Domain and GTR
VCCO_64	IN	1.0 V - 1.8 V	+/- 3 %	HP IO Bank 64	-
VCCO_65	IN	1.0 V - 1.8 V	+/- 3 %	HP IO Bank 65	-
VCCO_66	IN	1.0 V - 1.8 V	+/- 3 %	HP IO Bank 66	-
VCCO_47	IN	1.2 V - 3.3 V	+/- 3 %	HD IO Bank 47	-
VCCO_48	IN	1.2 V - 3.3 V	+/- 3 %	HD IO Bank 48	-
PSBATT	IN	1.2 V - 1.5 V	-	RTC / BBRAM	-
PLL_3V3	IN	3.3 V	+/- 5 %	PLL Core Power	-
PL_1V8	OUT	1.8 V	+/- 3 %	Power for Carrier	Programmable Logic
PS_1V8	OUT	1.8 V	+/- 3 %	Power for Carrier	Processing System
DDR4_1V2	OUT	1.2 V	+/- 3 %	Power for Carrier	PS DDR I/O Supply

I2C Address:

Device	I2C ADDR	Note
PLL U5	0x69	-
EEPROM U11	0x50	-

Legend:

- B2B Connector
- LED Interface
- On-board Components



Title:	TE0817
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Rev. 02

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Filename: **TE0817-Overview.SchDoc**

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1

2

3

4

Special notes:

PM1

FIDU-DOT - mini

PM2

FIDU-DOT - mini

PM3

FIDU-DOT - mini

PM4

FIDU-DOT - mini

PM6

FIDU-DOT - mini

PM5

FIDU-DOT - mini

Serial1

Serial

Serialnumber 6,3 x 6.3mm

LOGO1

TE Logo PRINT Layer

LOGO PRINT

MECH1

TE Address Overlay

LOGO ADDRESS

CE

CE Logo on Top Overlay

CE-TOPOVERLAY

UKCA

UKCA Logo on Top Overlay

UKCA-TOPOVERLAY

RoHS

RoHS-TOPOVERLAY

WEEE

WEEE Logo on Top Overlay

WEEE-TOPOVERLAY

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Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe

Mount.Hole 3.2mm für Unterlegscheibe

Design drawn by: ED

Checked by: MT

Assembly variant: 7DI61-A

Created by: VG

Modified by: VG

Modified at: 2025-12-17

1

2

3

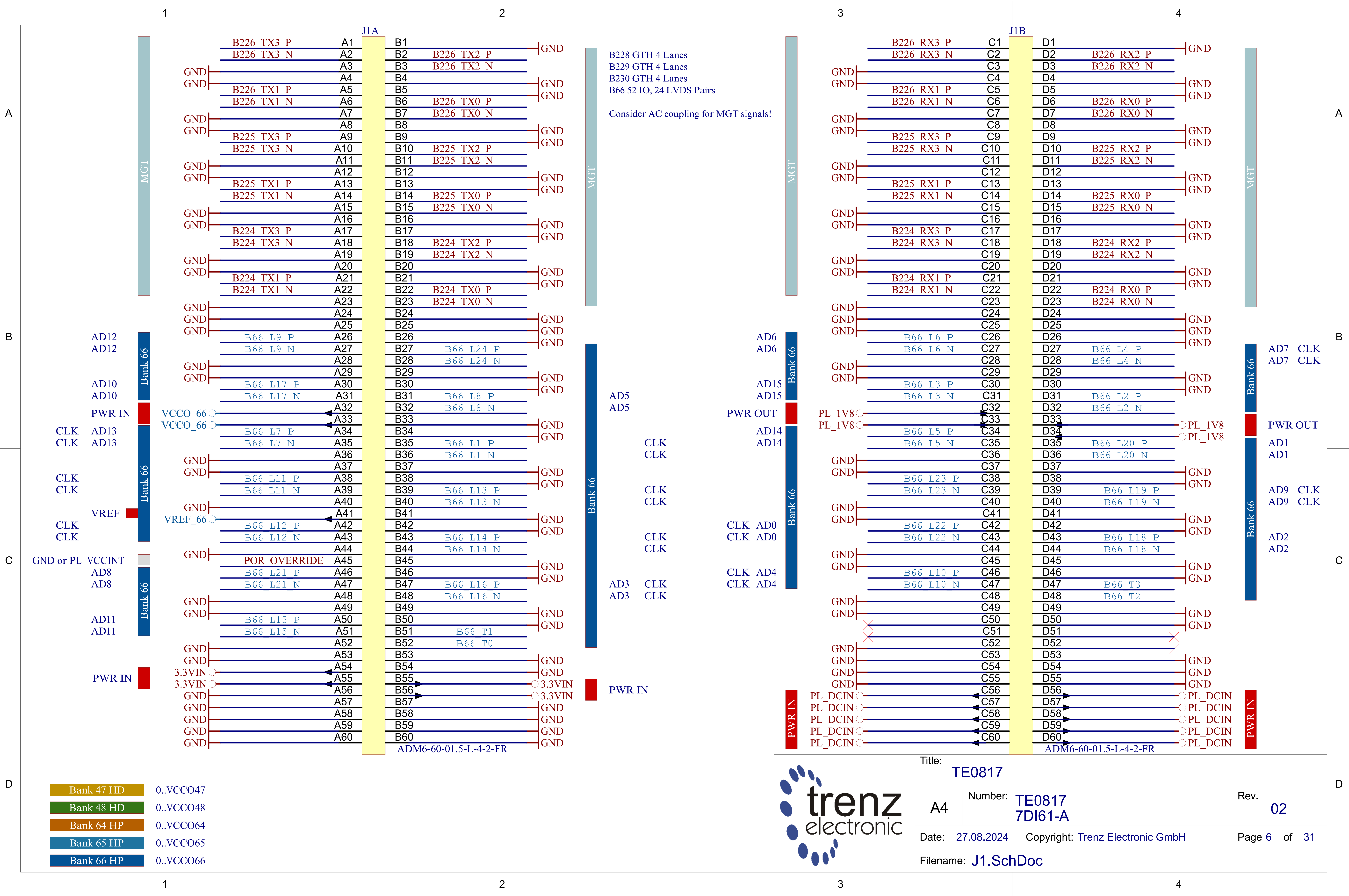
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A

B

C

D



A

A

B

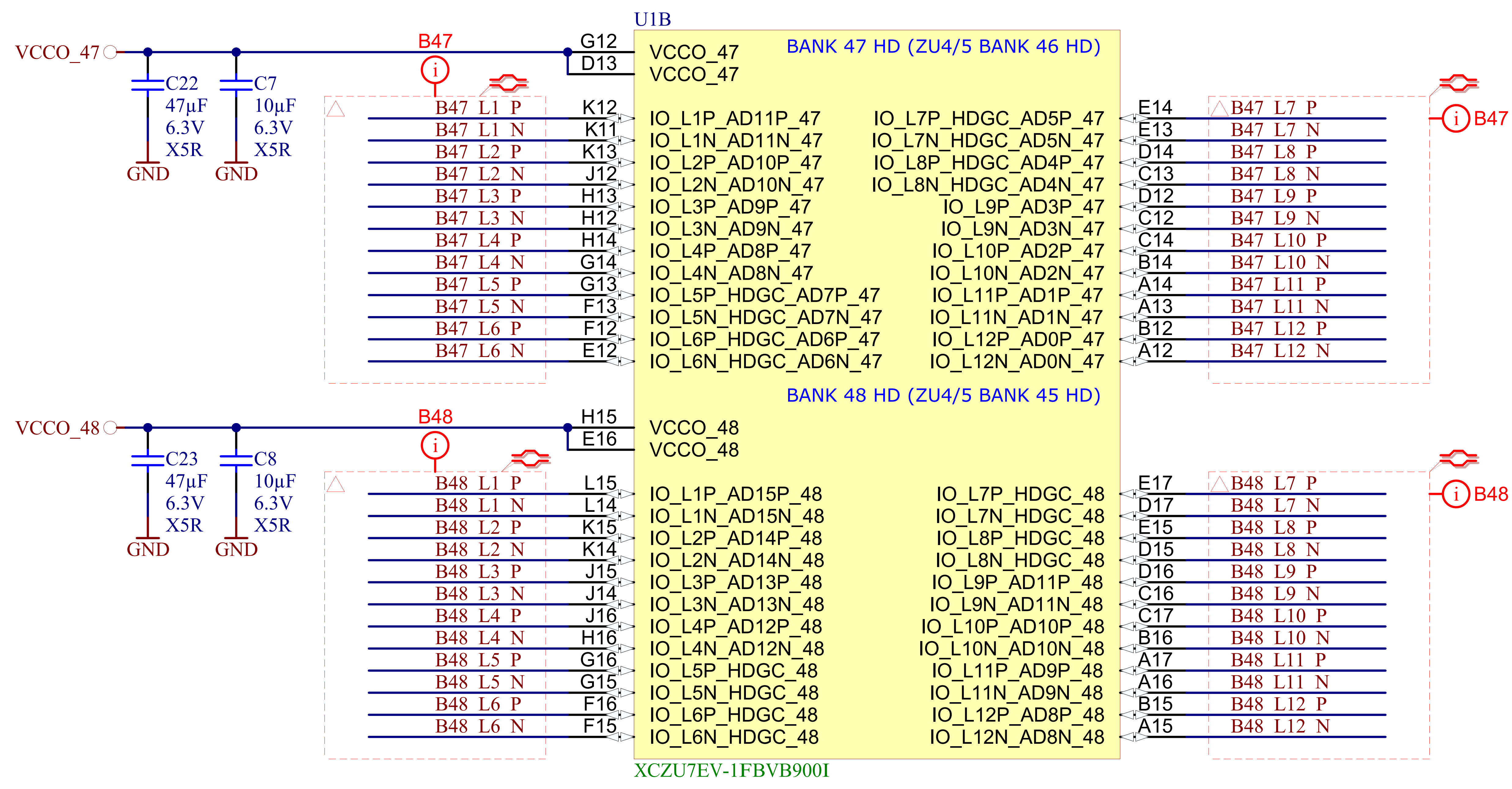
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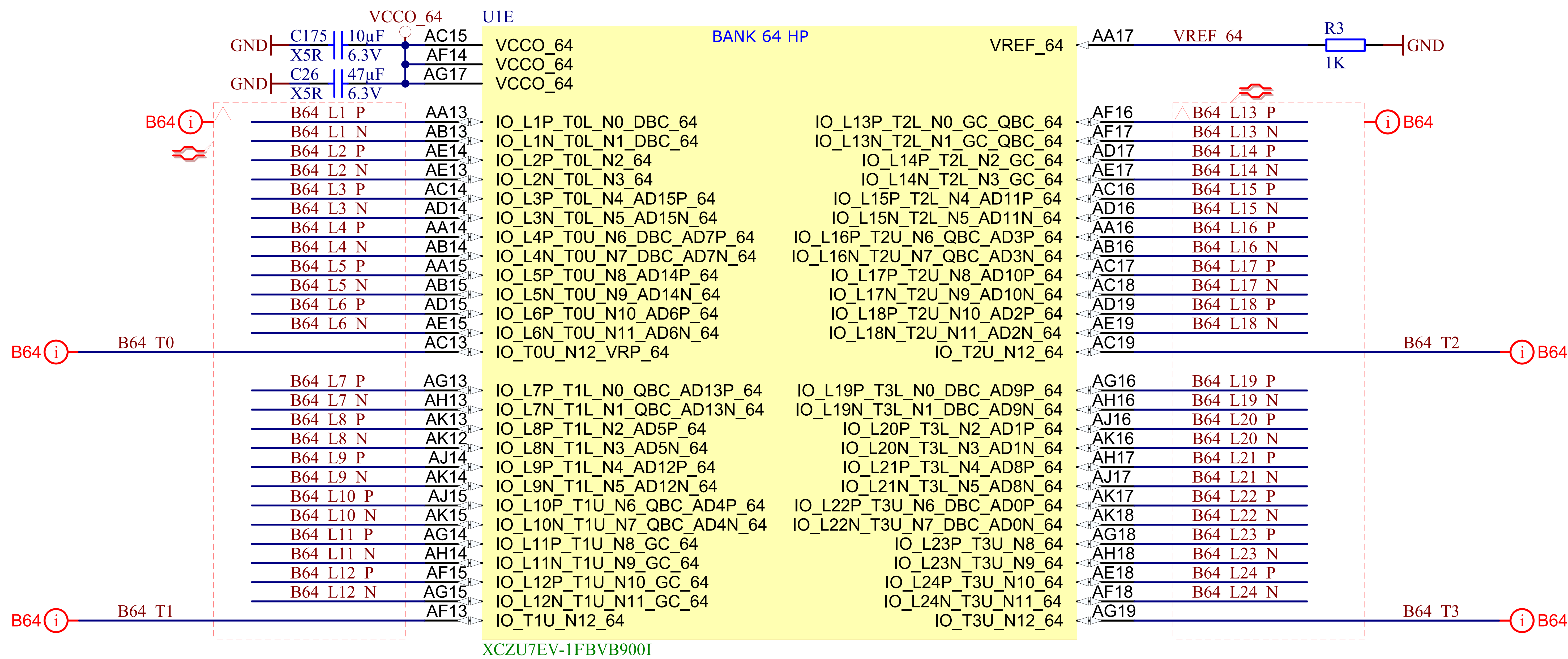
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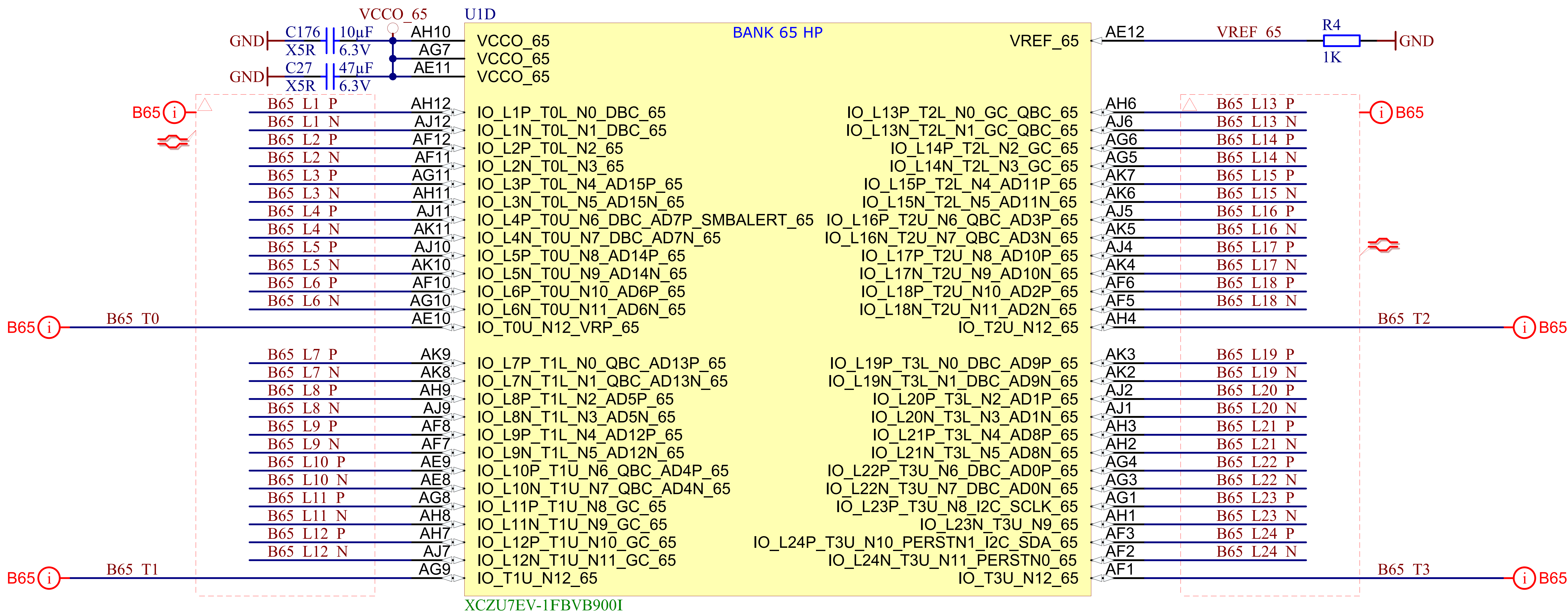
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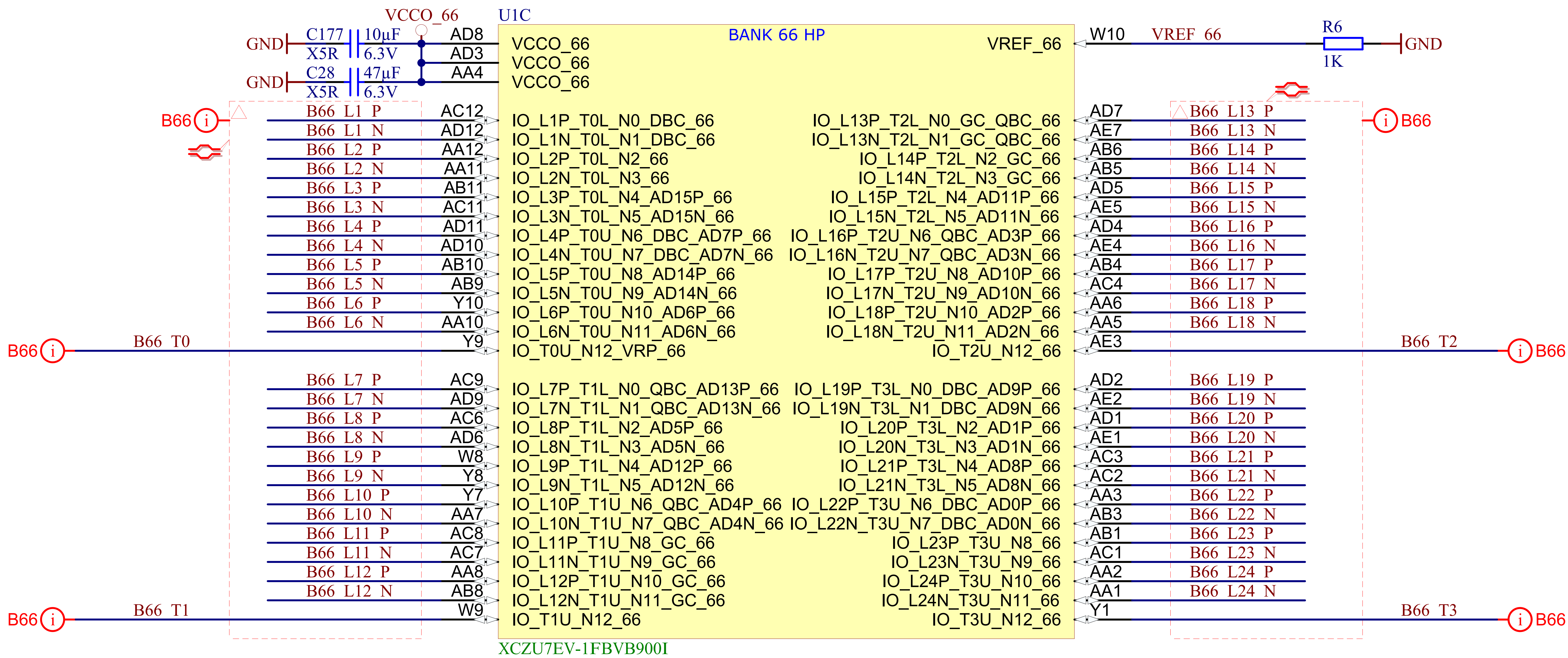




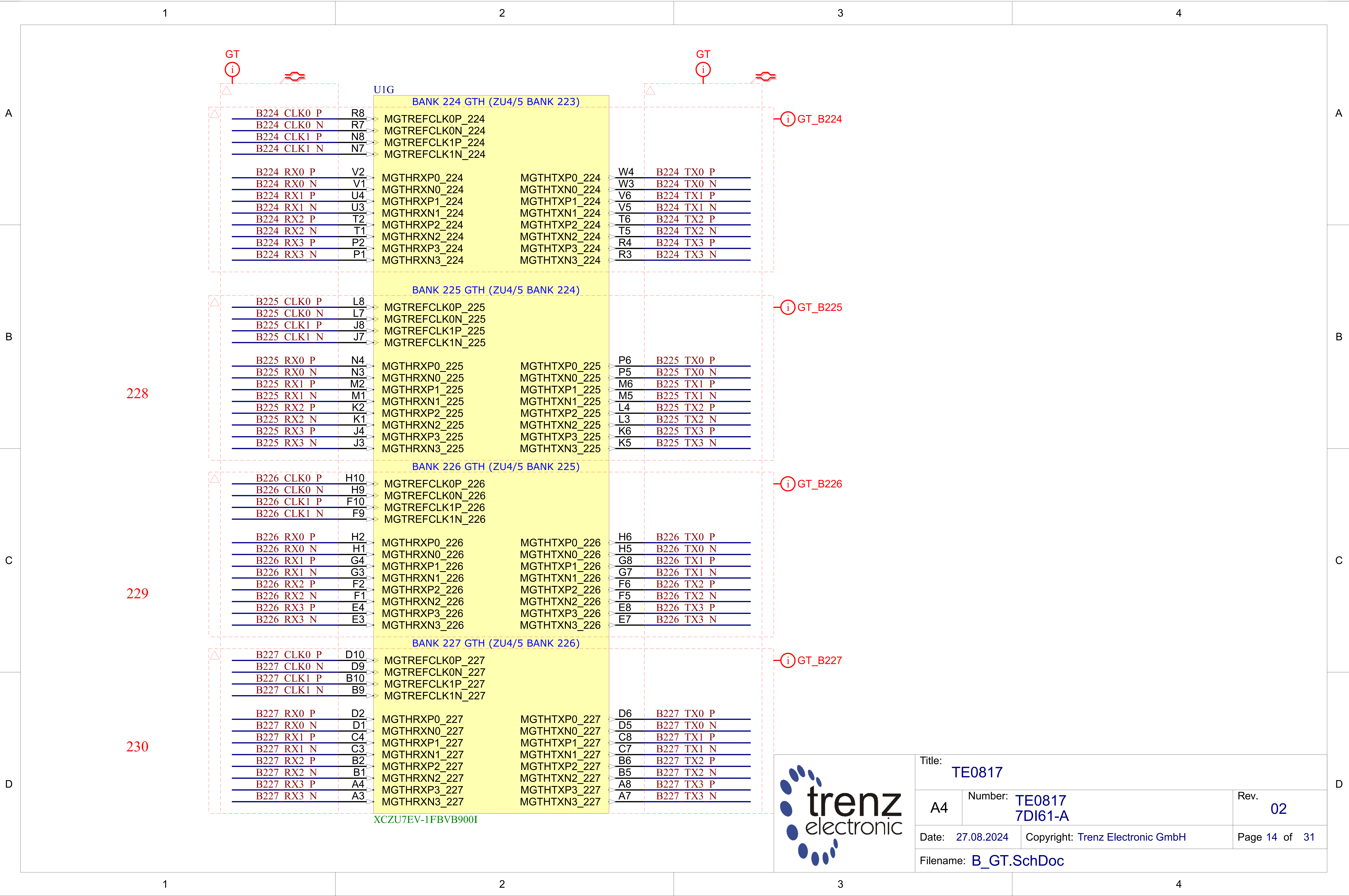
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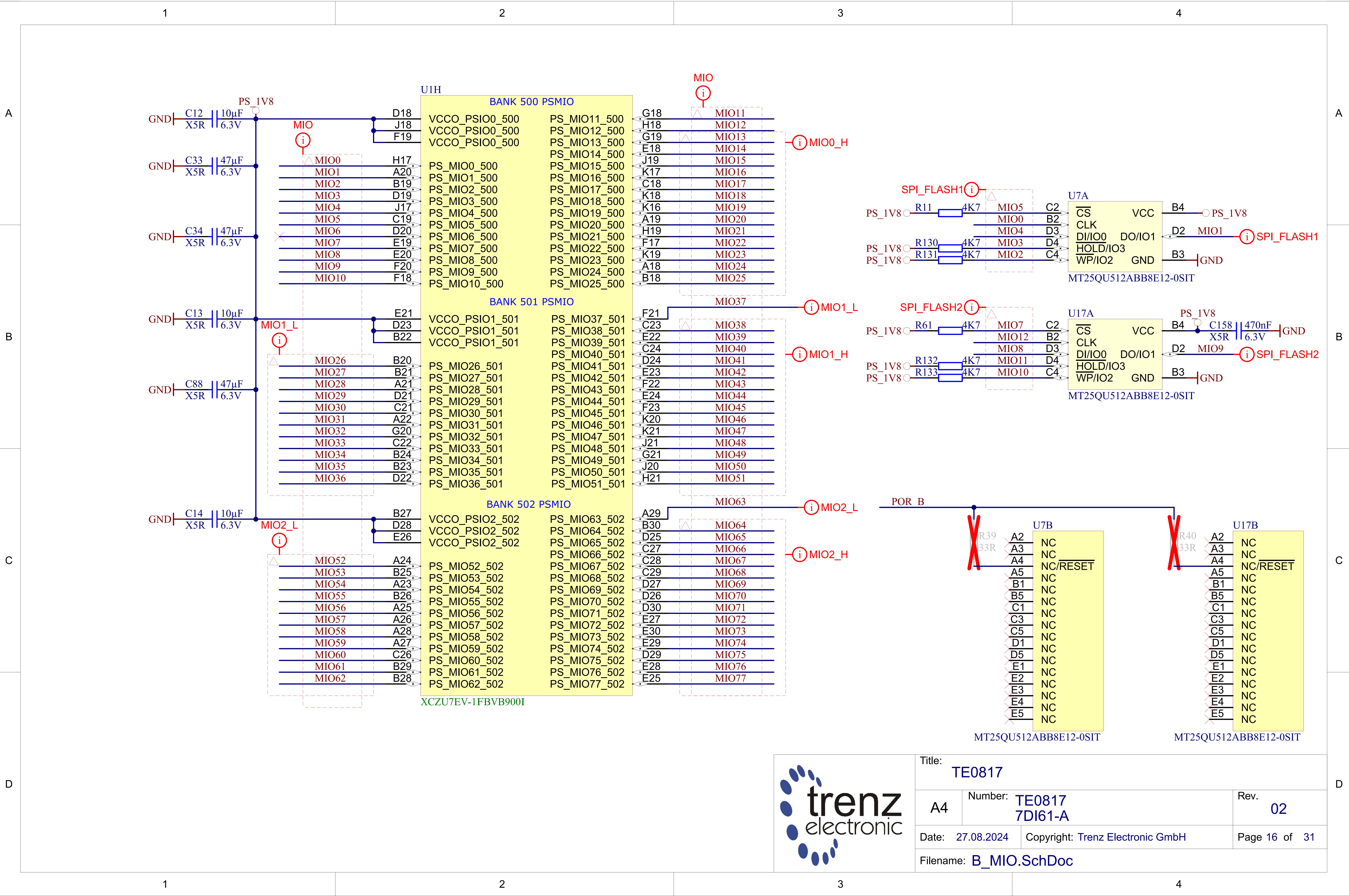
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Title:

TE0817

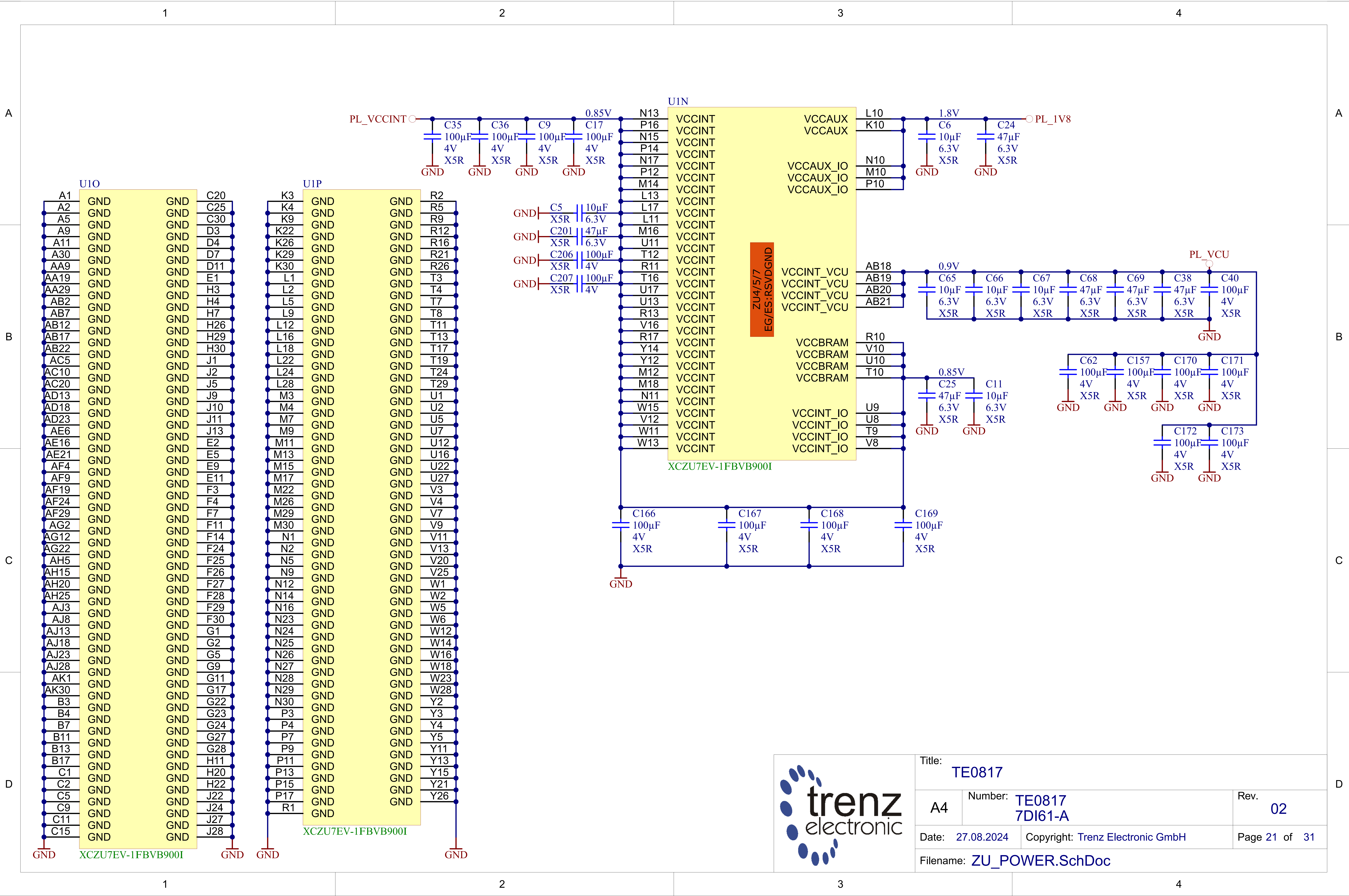
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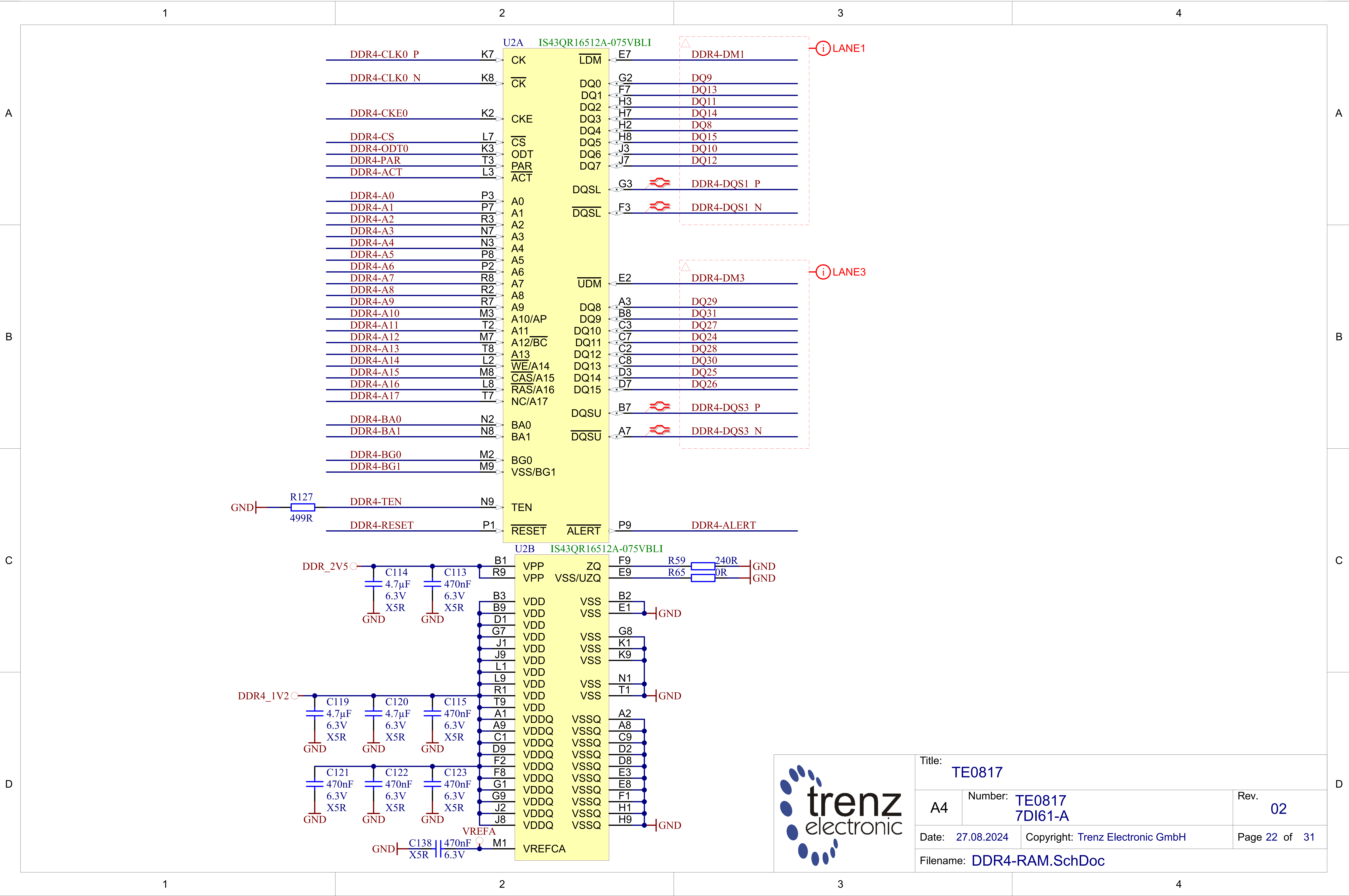




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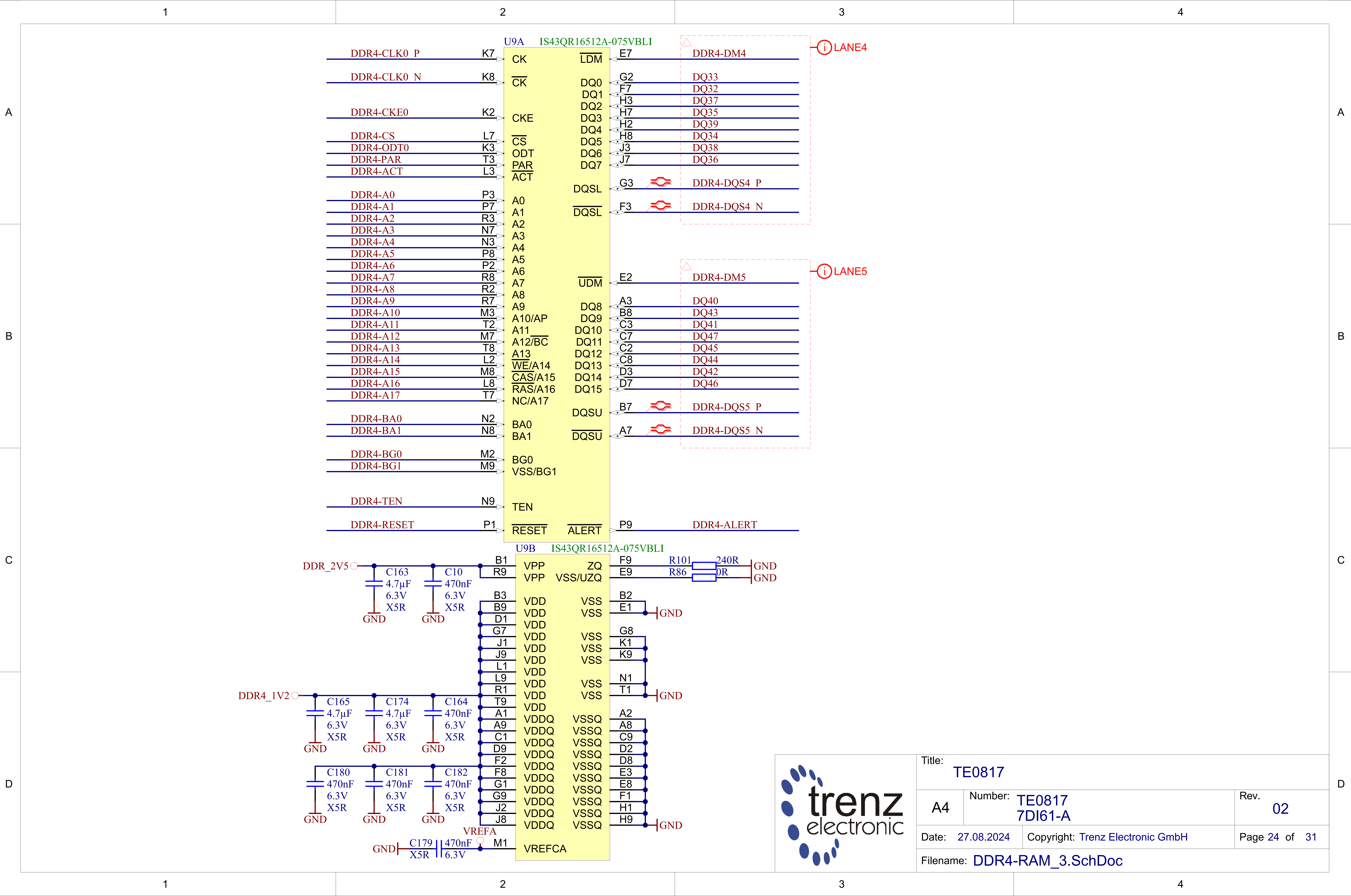
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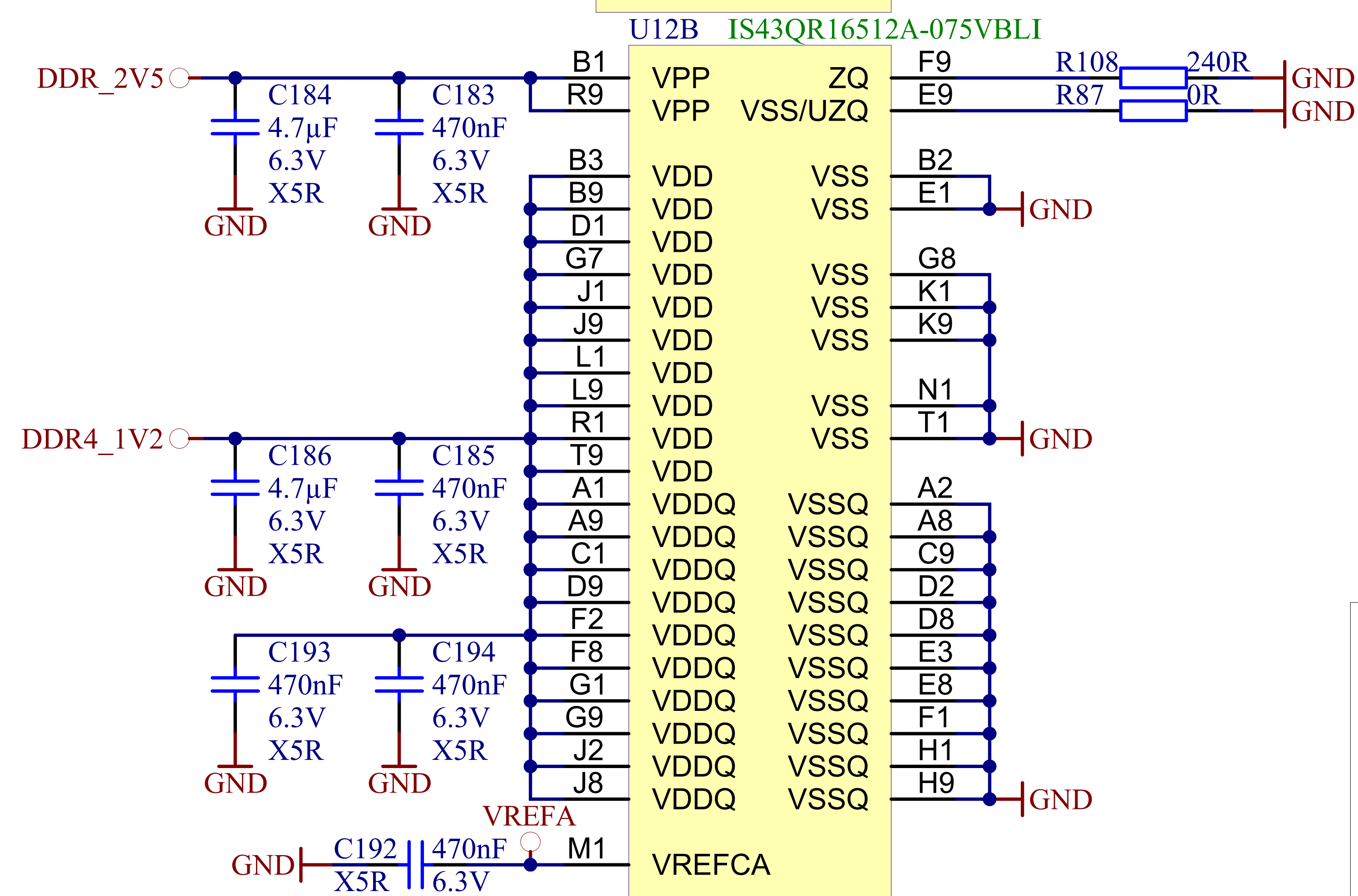
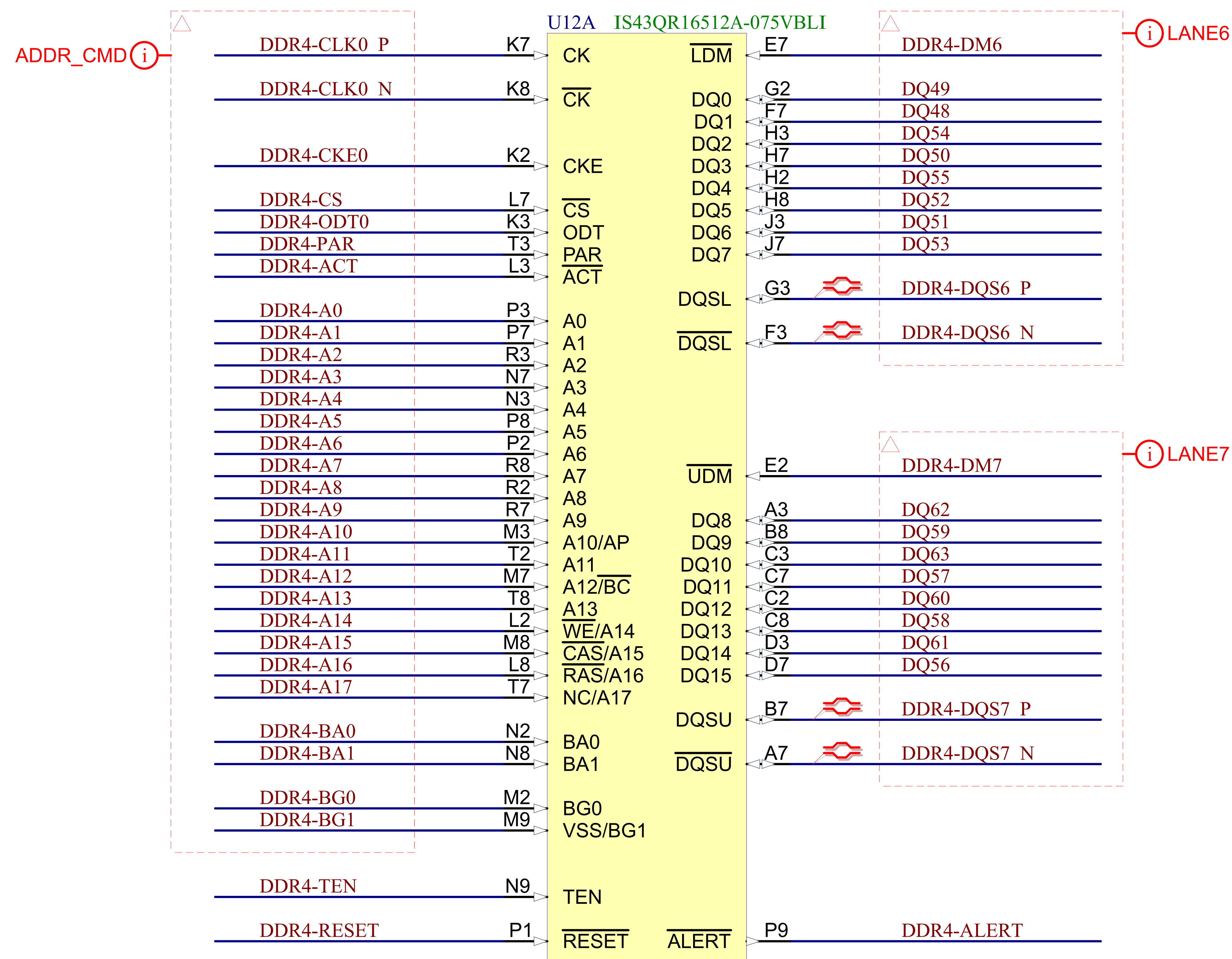


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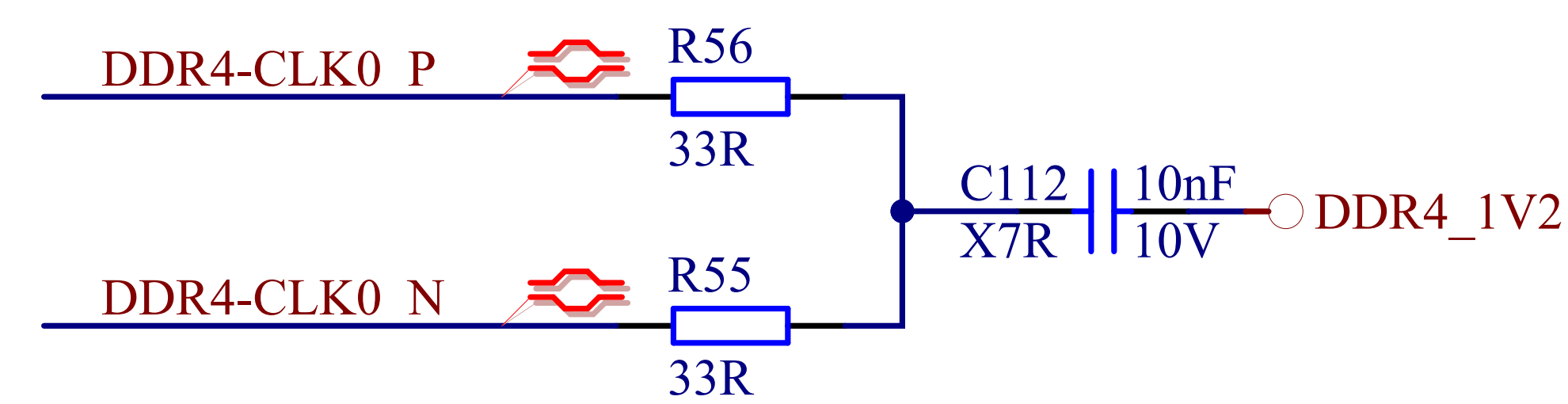
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Filename: DDR4-RAM.SchDoc

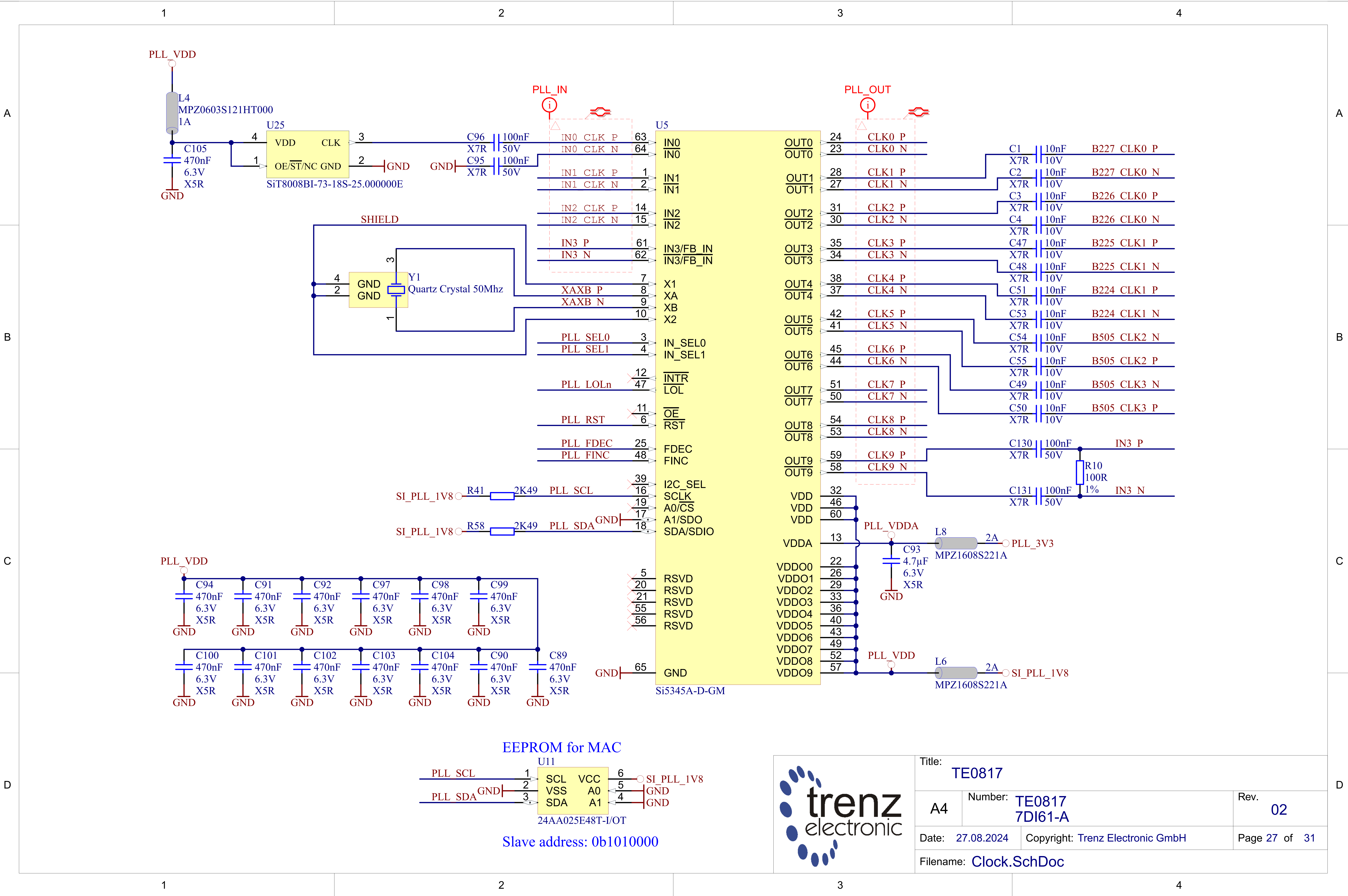




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Filename: DDR4-RAM 4.SchDoc		



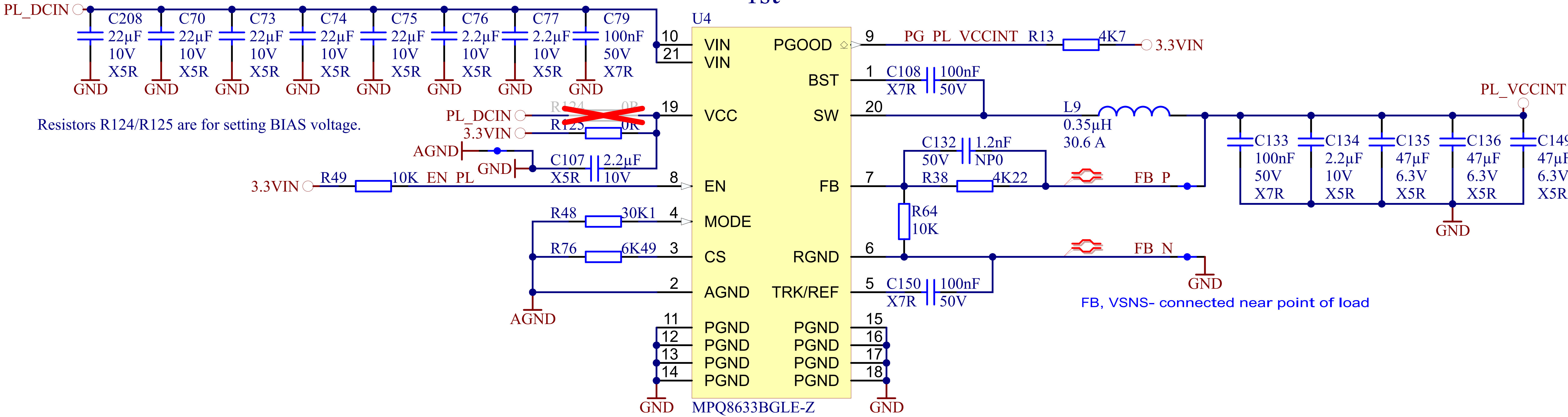
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Filename: DDR4-TERM.SchDoc		



U4 can be TPS548A28RWWR or MPQ8633BGLE-Z which is up to Trenz Electronic GmbH.

PL VCCINT

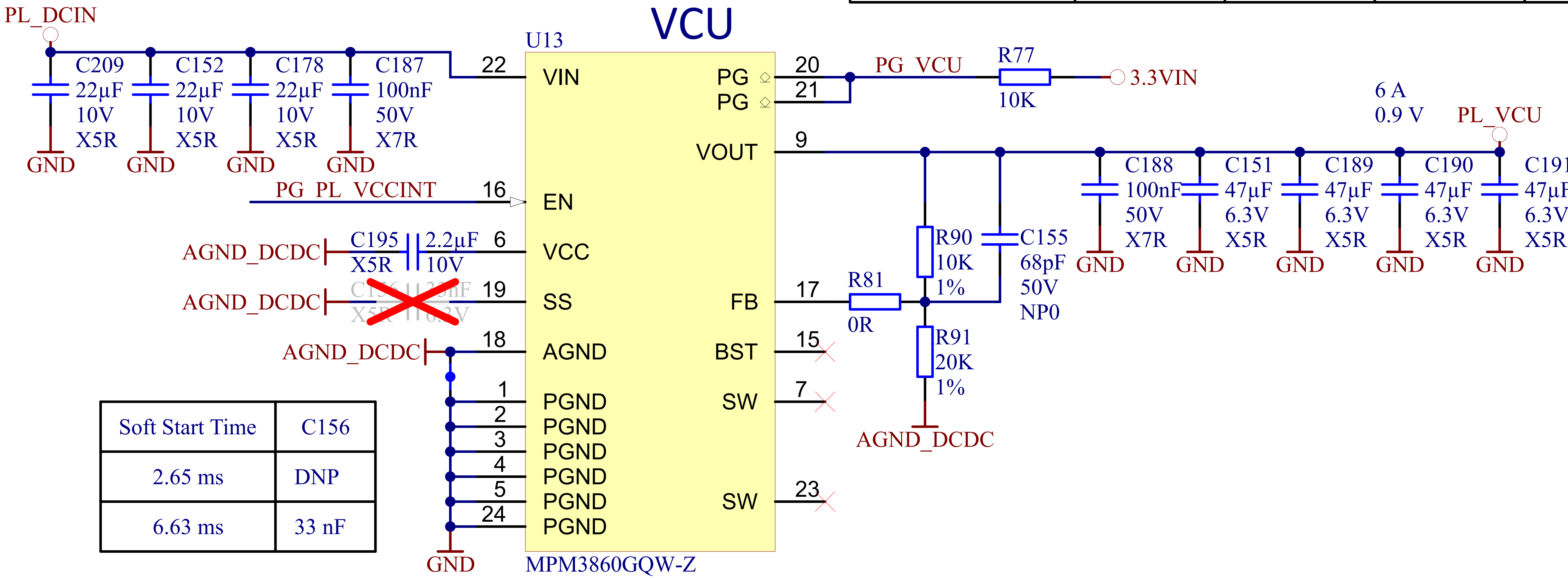
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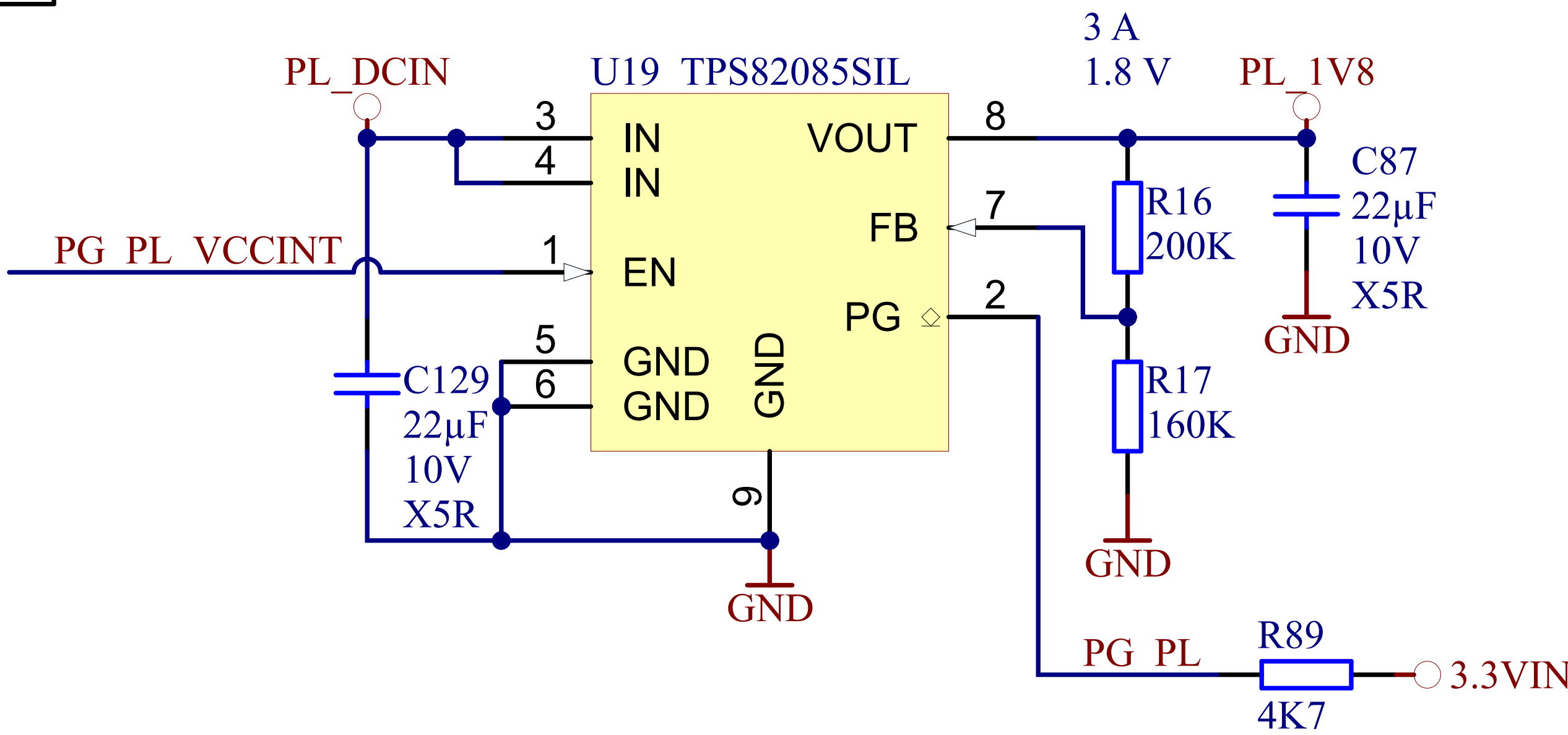
DCDC U4 (pin compatible)	Current Capability	Current Limit*	R76	Light-Load Mode	Frequency	R48	Soft Start Time	C150
TPS548A28	15 A	13.9 A	4.70 kOhm	CCM	800 kHz	30.1 kOhm	1.66 ms	100 nF
TPS548B28	20 A	19.7 A	6.49 kOhm	CCM	800 kHz	30.1 kOhm	1.66 ms	100 nF
MPQ8633BGLE-Z	20 A	19.7 A	6.49 kOhm	CCM	800 kHz	30.1 kOhm	1.66 ms	100 nF

* Current limit depends on input and output voltage.

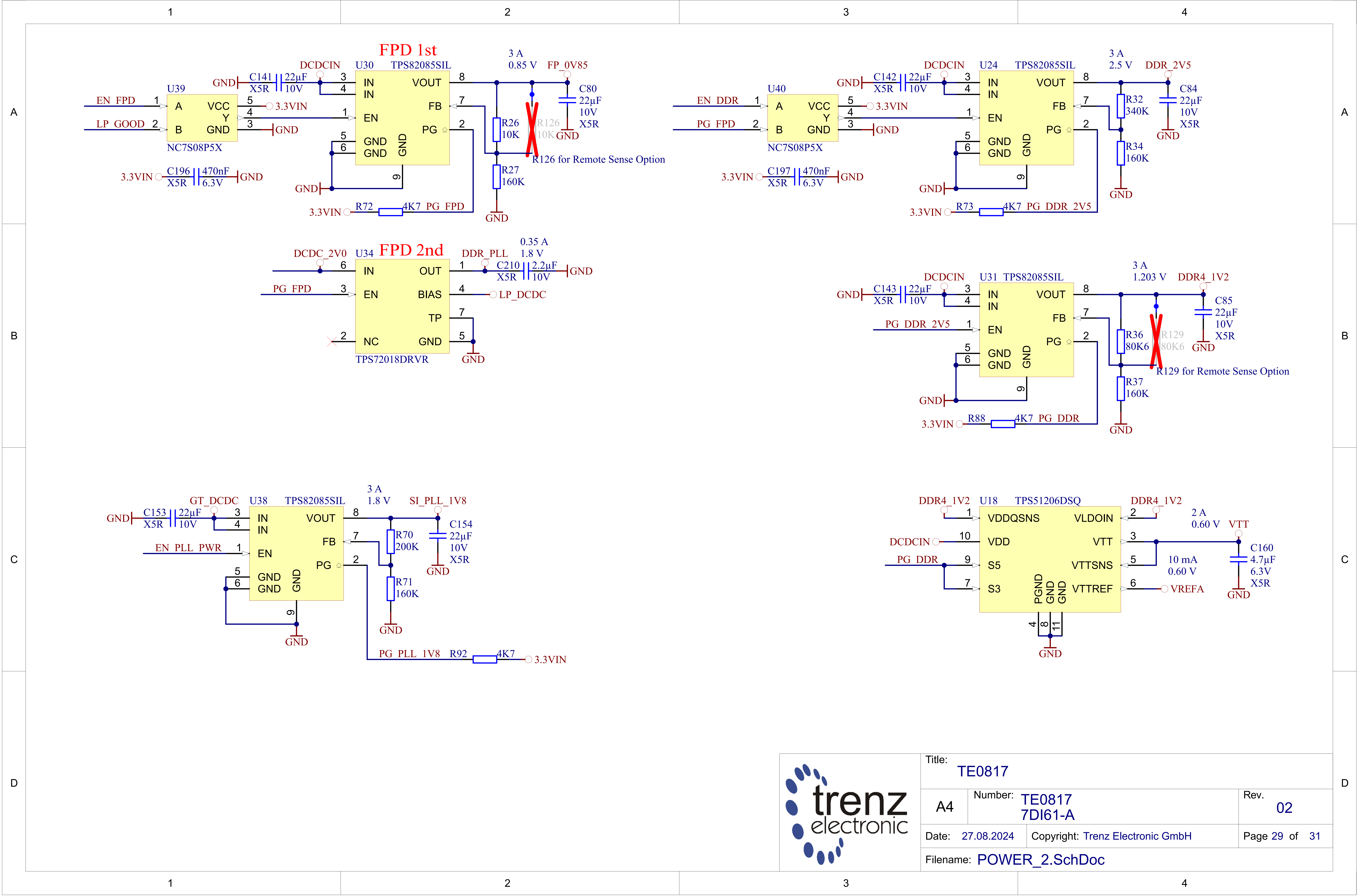
FPGA Speedgrade	R38	R64	PL_VCCINT	C132
-1	4.22 kOhm	10 kOhm	0.853 V	1.2 nF
-2	4.22 kOhm	10 kOhm	0.853 V	1.2 nF
-3	10 kOhm	20 kOhm	0.900 V	560 pF

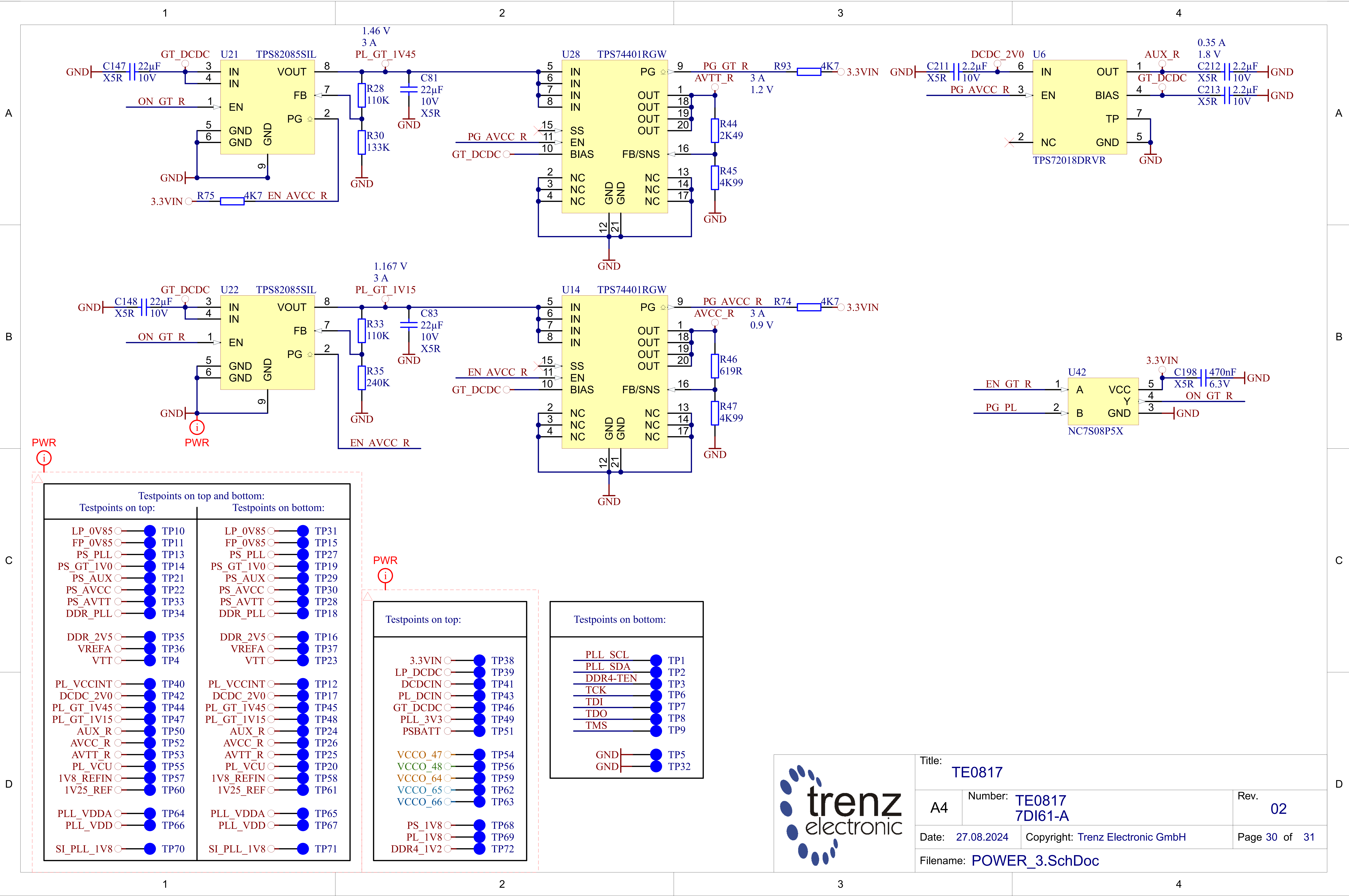


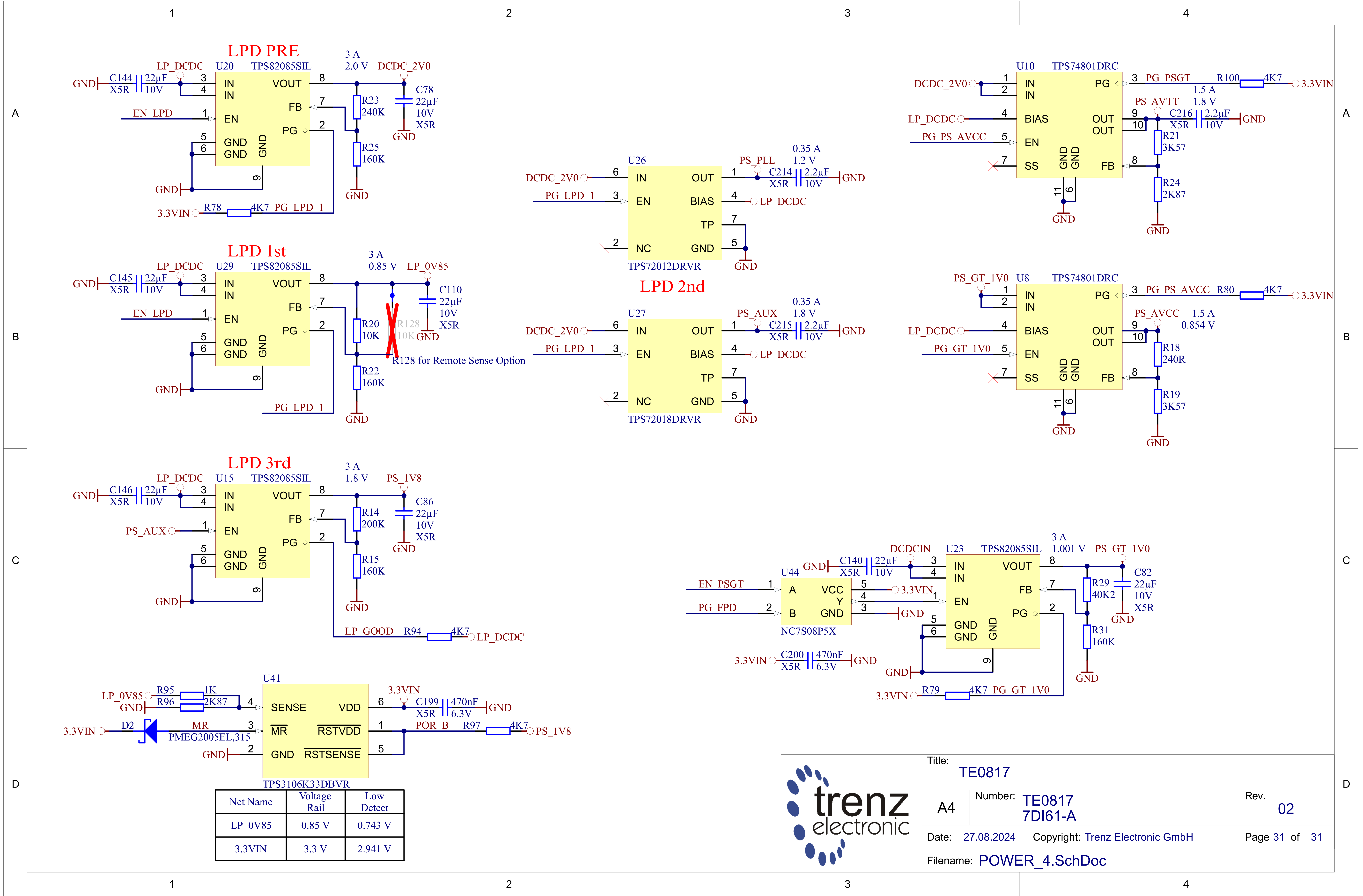
Soft Start Time	C156
2.65 ms	DNP
6.63 ms	33 nF



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