

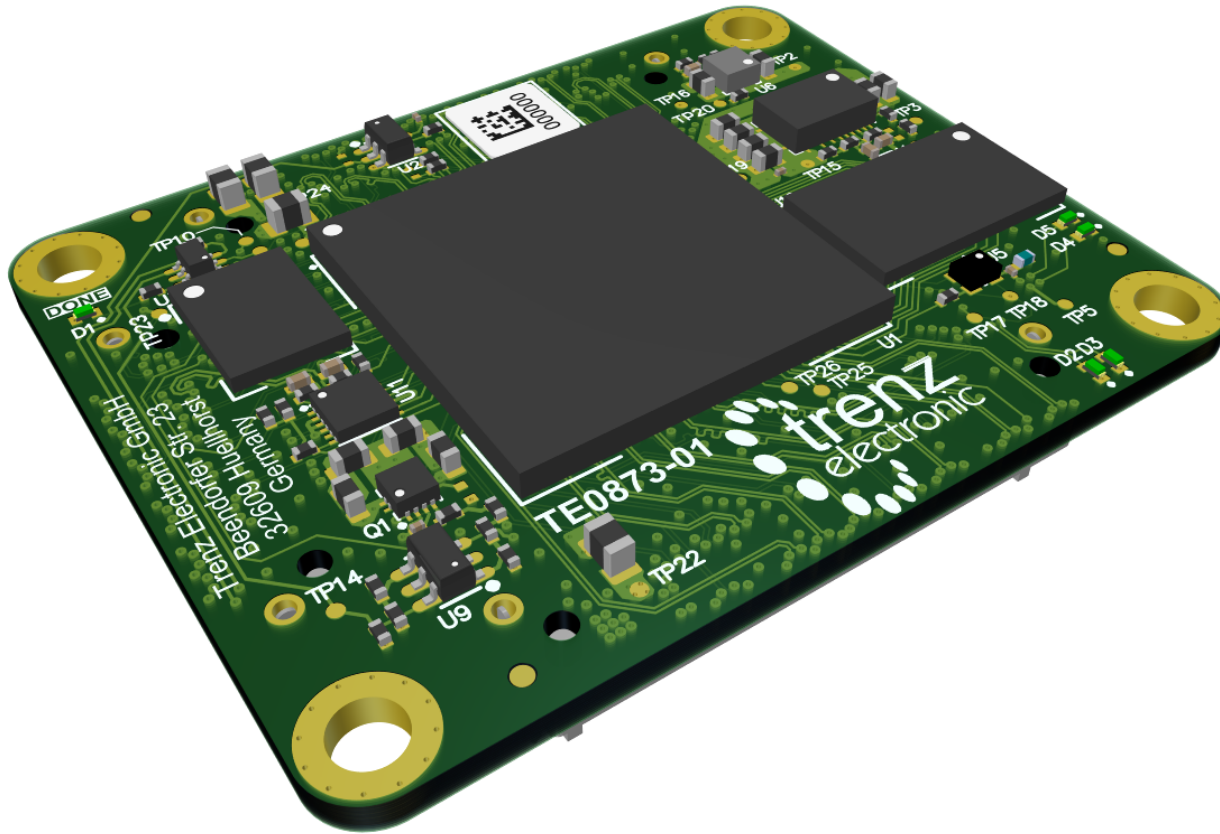


Image is for illustrative purposes only

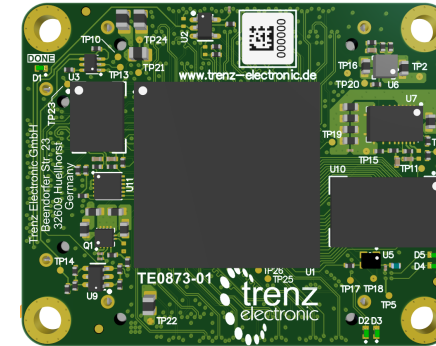


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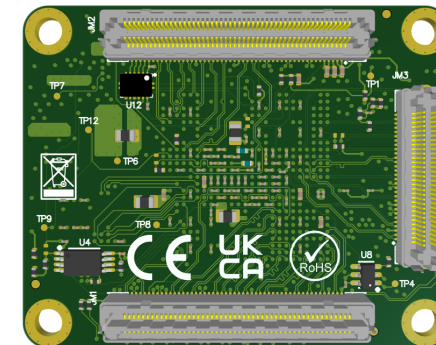


Image is for illustrative purposes only

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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. TE0873 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!

	Title: TE0873 - Legal Notices Modules		
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A

A

B

B

C

C

D

D

REV	Description	
-01	Initial revision	MT / VG

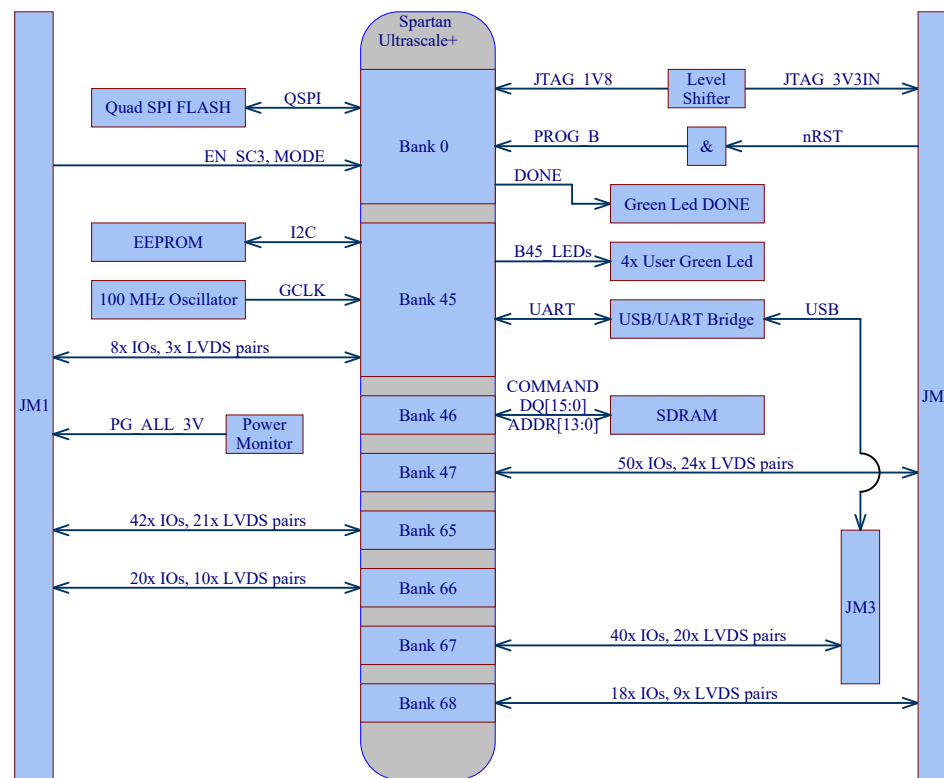
		Title: TE0873 - Changes list	
		A4	Rev. 01
		Number: TE0873 P1E12-A	
		Date: 09.06.2026	Page 2 of 15
		Copyright: Trenz Electronic GmbH	
		Filename: Revision_Changes.SchDoc	

1

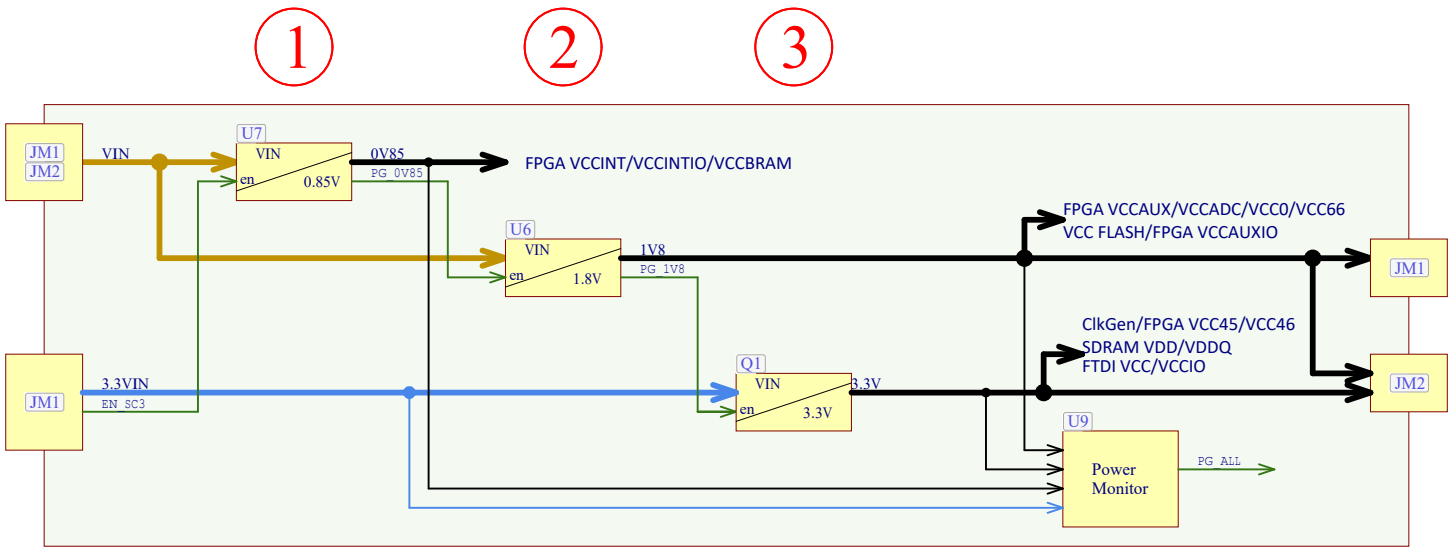
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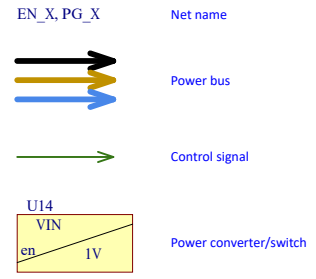


Power-on sequencing:



Supported Voltage Ranges:

Power Rail	Direction	Range	Tolerance	Description	Note
VIN	IN	3.3 - 5.0V	+/-5%	Micromodule Power	-
3.3VIN	IN	3.3V	+/-5%	Micromodule Power	-
VCCIO47	IN	1.0 - 1.8V	+/-3%	HP IO Bank47	-
VCCIO65	IN	1.2 - 3.3V	+/-3%	HD IO Bank65	-
VCCIO67	IN	1.2 - 3.3V	+/-3%	HD IO Bank67	-
VCCIO68	IN	1.2 - 3.3V	+/-3%	HD IO Bank68	-
3.3V	OUT	3.3V	+/-5%	Power for Carrier	-
1.8V	OUT	1.8V	+/-3%	Power for Carrier	-



Title: TE0873 - Power Diagram

A4

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Special notes: MT25QU256ABA8E12-1SIT instead of MT25QU01GBBB8E12-0SIT (U3)

WEEE

WEEE Logo on Top Overlay

WEEE-TOPOVERLAY
UKCA1

UKCA Logo on Top Overlay

UKCA-TOPOVERLAY
CE1

CE Logo on Top Overlay

CE-TOPOVERLAY
RoHS

RoHS Logo on Top Overlay

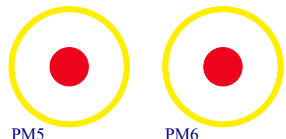
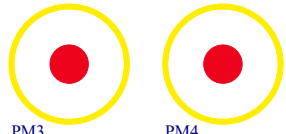
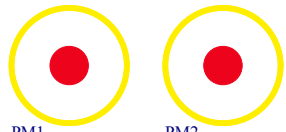
RoHS-TOPOVERLAY
MECH13

TE Address Overlay

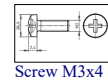
LOGO ADDRESS
LOGO1

TE Logo PRINT Layer

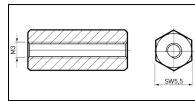
LOGO PRINT
Serial1
Serial
Serialnumber 6,3 x 6.3mm



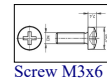
Top of Board



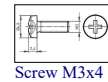
Screw M3x4



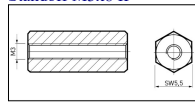
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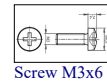
Screw M3x6



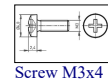
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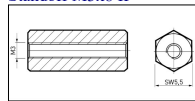
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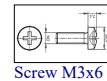
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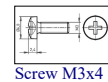
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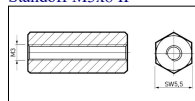
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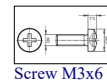
Screw M3x6



Screw M3x4



Standoff M3x8 II



Screw M3x6

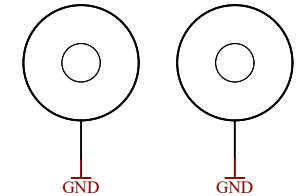
Top testpoints

DONE	TP13	Testpoint 0.8mm
PG ALL	TP14	Testpoint 0.8mm
0V85	TP15	Testpoint 0.8mm
PROG B	TP10	Testpoint 0.8mm
INIT	TP11	Testpoint 0.8mm
1V8	TP20	Testpoint 0.8mm
VCCIO47	TP21	Testpoint 0.8mm
VIN	TP2	Testpoint 0.8mm
GND	TP16	Testpoint 0.8mm
3V3IN	TP3	Testpoint 0.8mm
3V3	TP5	Testpoint 0.8mm
B45_SDA	TP17	Testpoint 0.8mm
B45_SCL	TP18	Testpoint 0.8mm
VREF47	TP19	Testpoint 0.8mm
VCCIO65-66	TP22	Testpoint 0.8mm
VCCIO67	TP23	Testpoint 0.8mm
VCCIO68	TP24	Testpoint 0.8mm

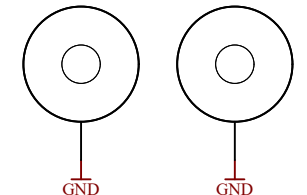
Bottom testpoints

DONE	TP7	Testpoint 0.8mm
PG ALL	TP9	Testpoint 0.8mm
0V85	TP8	Testpoint 0.8mm
PROG B	TP12	Testpoint 0.8mm
INIT	TP1	Testpoint 0.8mm
1V8	TP4	Testpoint 0.8mm
VCCIO47	TP6	Testpoint 0.8mm

Mount.Hole 3.2mm Mount.Hole 3.2mm



Mount.Hole 3.2mm Mount.Hole 3.2mm



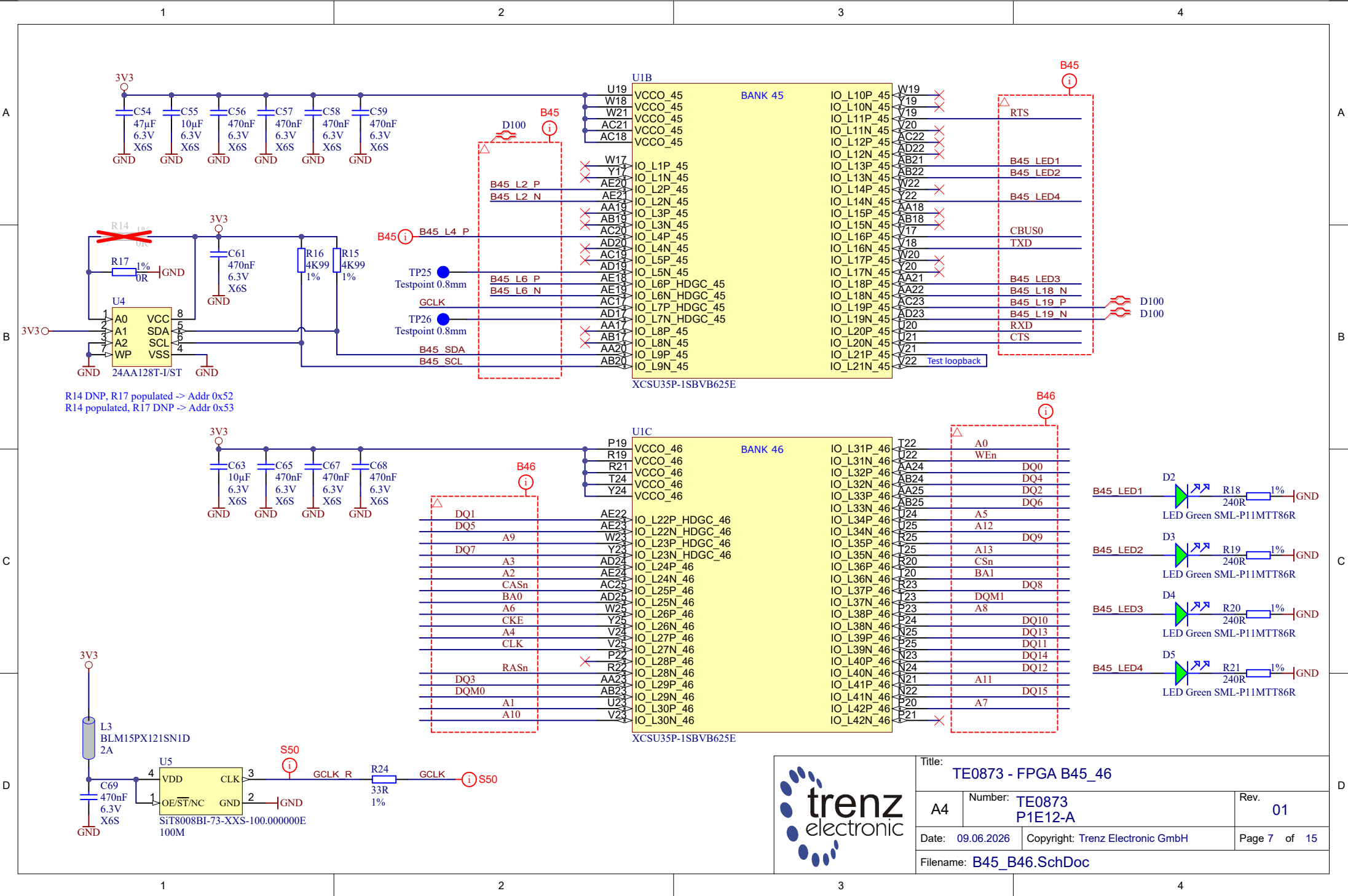
Design drawn by: MT
Checked by: MR

Assembly variant: P1E12-A
Created by: MT
Modified by: MT
Modified at: MT



Title:
TE0873

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1-1.8V

VCCIO47

PWR

C92
47µF
6.3V
X6SC93
10µF
6.3V
X6SC94
470nF
6.3V
X6SC95
470nF
6.3V
X6SC96
470nF
6.3V
X6SC98
470nF
6.3V
X6S

D100

B47

U1D

C21
D24
K21
K24
L18
VCCO_47
VCCO_47
VCCO_47
VCCO_47
VCCO_47BANK 47
HP

VREF_47

R39
1K
R40
1K
VREF47
1%
GND

VCCIO47

D100

B47

GND
R41
240R
1%

B47 T1

XCSU35P-1SBVB625E

B47 T3



Title:

TE0873 - FPGA B47

A4

Number:

TE0873
P1E12-A

Rev.

01

Date: 09.06.2026

Copyright: Trenz Electronic GmbH

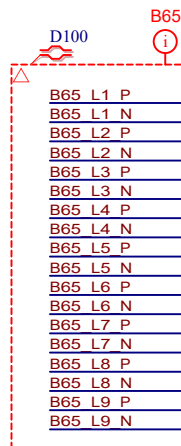
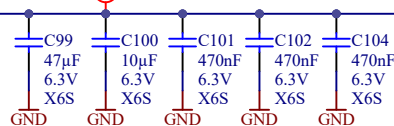
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Filename: B47_HP.SchDoc

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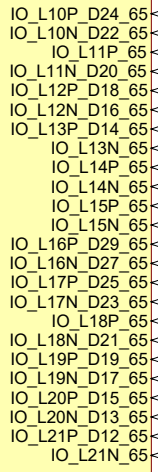
VCCIO65-66

PWR



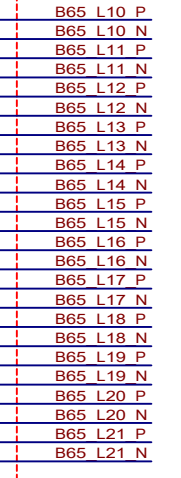
U1E

BANK 65

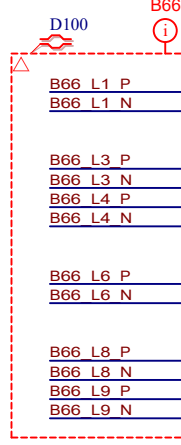
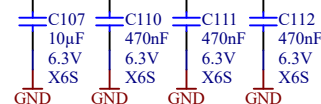


D100

B65

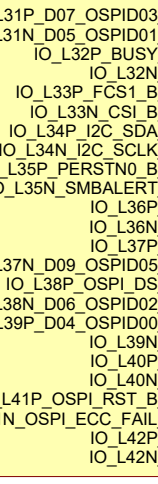


XCSU35P-1SBVB625E



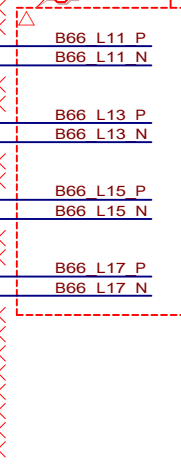
U1F

BANK 66



D100

B66



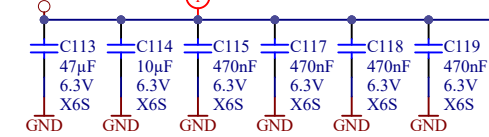
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Title: TE0873 - FPGA B65_66			
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Date: 09.06.2026	Copyright: Trenz Electronic GmbH		Page 9 of 15
Filename: B65_B66.SchDoc			

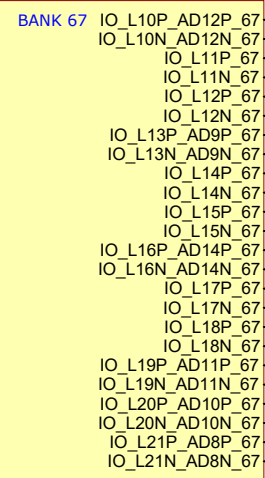
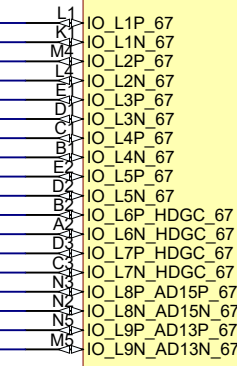
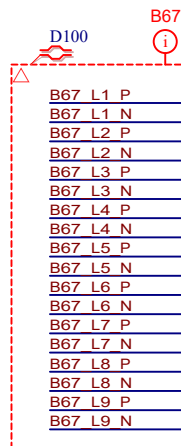
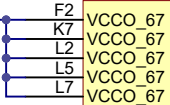
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VCCIO67



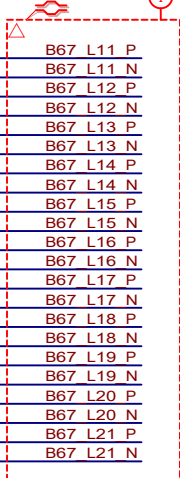
2

U1G



D100

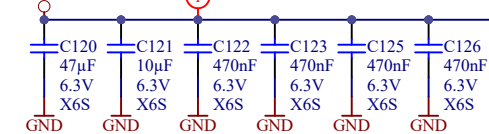
B67



XCSU35P-1SBVB625E

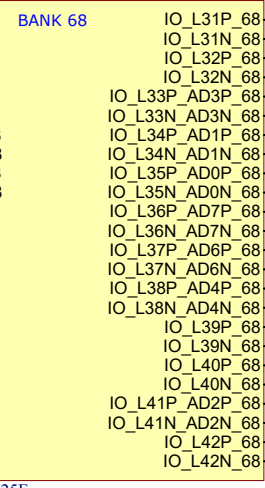
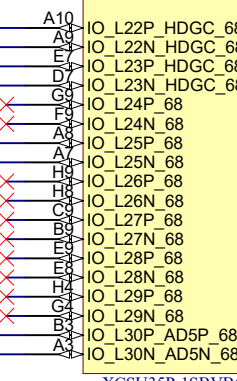
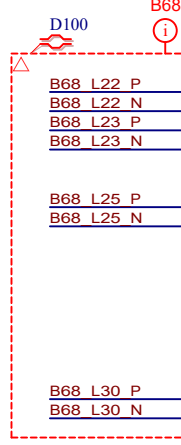
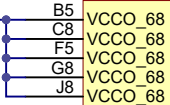
1.2-3.3V

VCCIO68



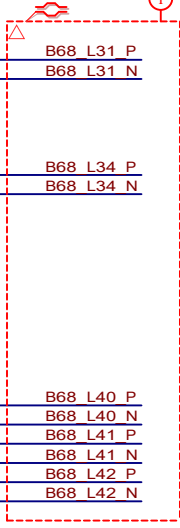
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U1H



D100

B68



XCSU35P-1SBVB625E



Title:

TE0873 - FPGA B67_68

A4

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TE0873
P1E12-A

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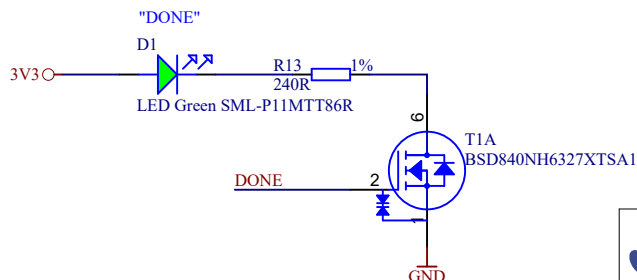
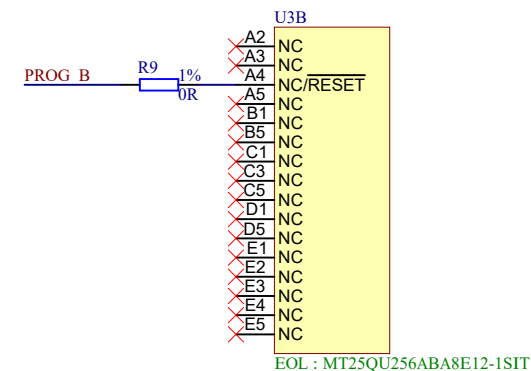
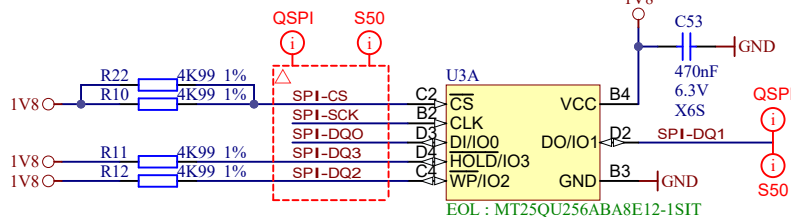
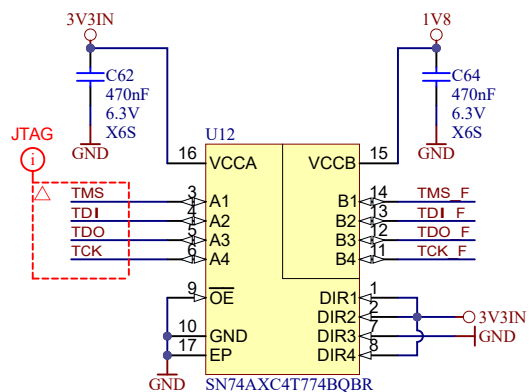
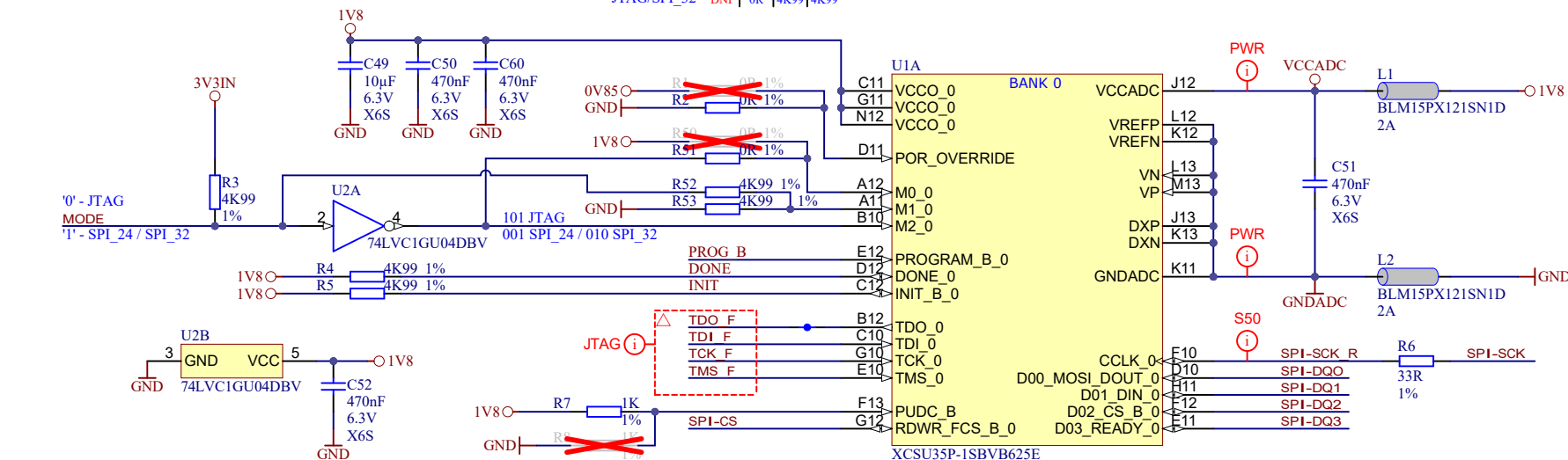
A

B

C

D

	R50	R51	R52	R53
JTAG/SPI_24	0R	DNP	DNP	0R
JTAG/SPI_32	DNP	0R	4K99	4K99



Title: TE0873 - FPGA Configuration		
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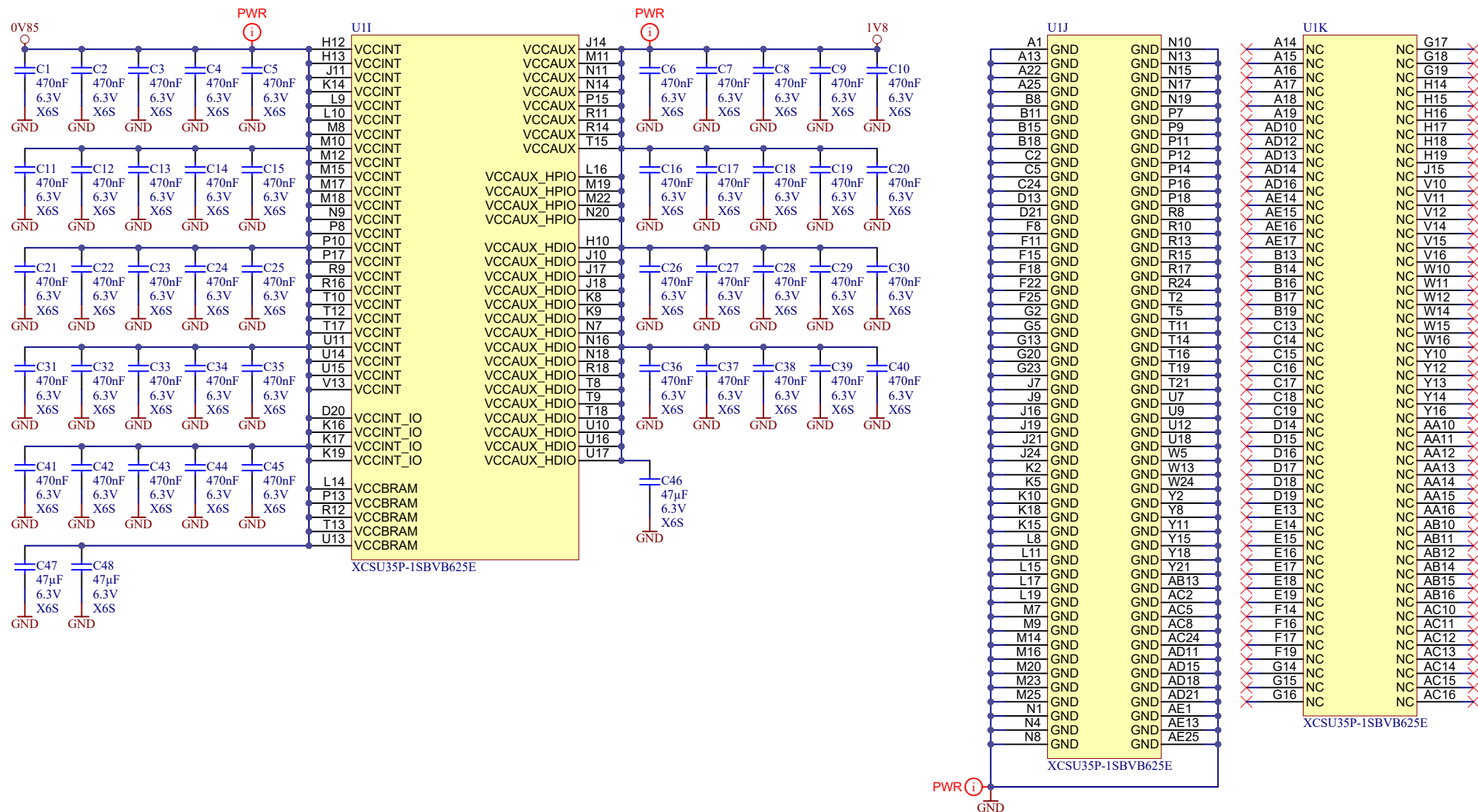
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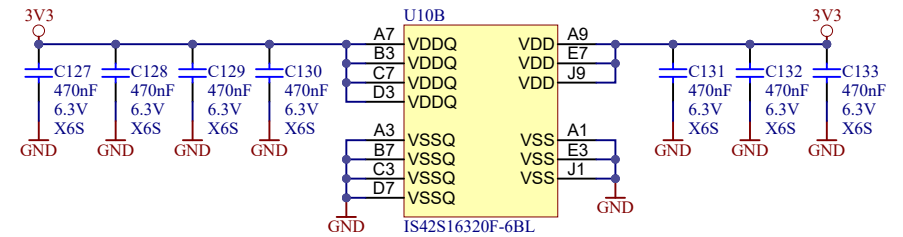
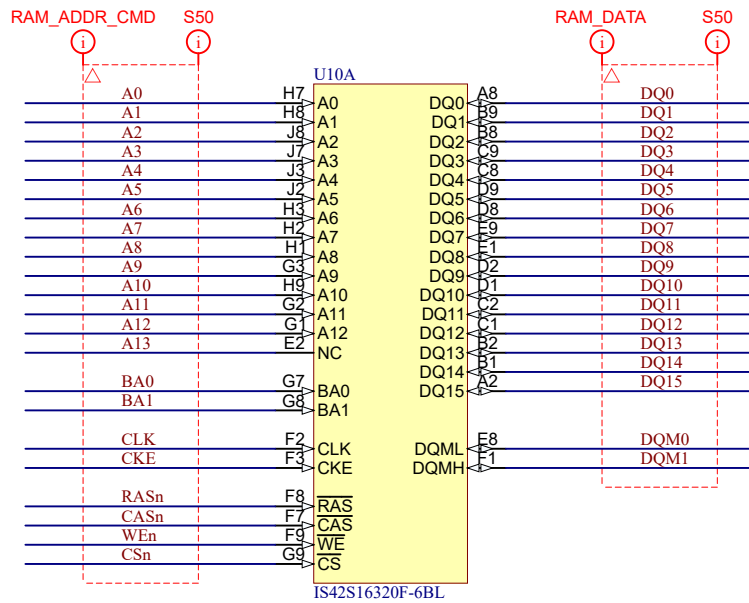
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A4	Number: TE0873 P1E12-A	Rev. 01
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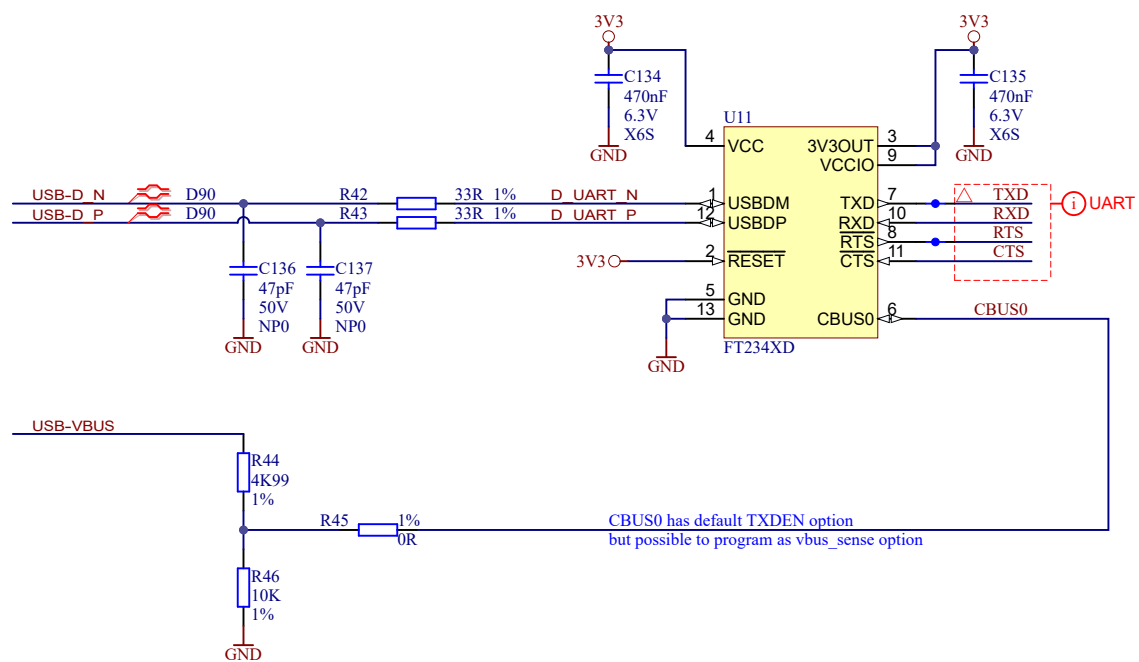
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	Title: TE0873 - SDRAM		
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USB/UART Bridge



Title: TE0873 - FTDI_UART		
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A

A

B

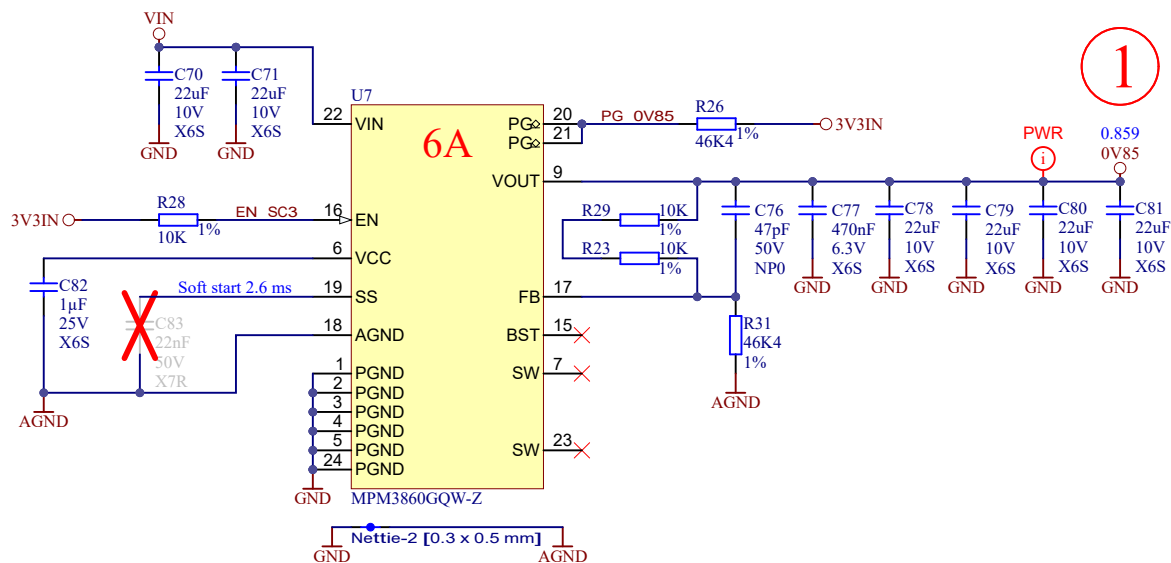
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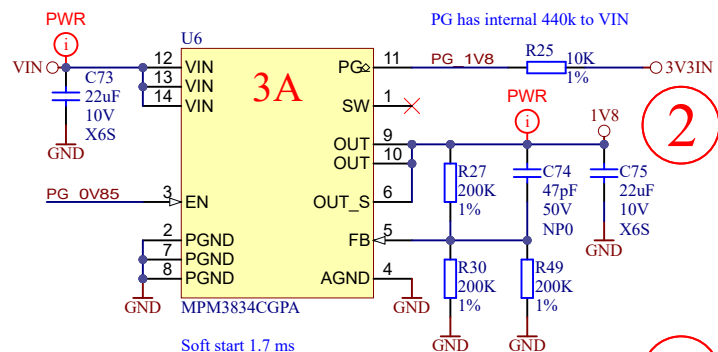
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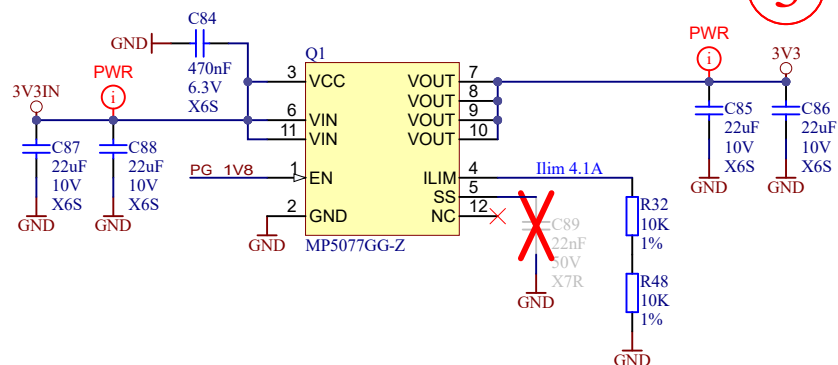
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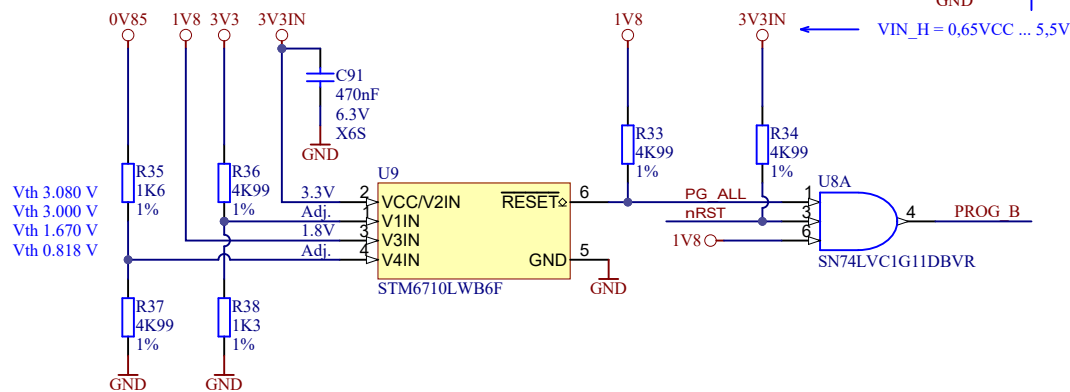
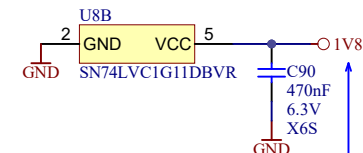
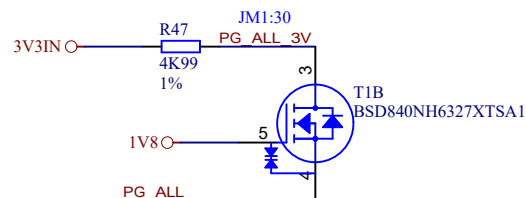
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