

1

2

3

4

CHANGES REV01 to REV02

- 1) MAC EEPROM Address patch fixed on PCB
- 2) lib components update

A

B

C

D

A

B

C

D

Assembly variant	93E31-AZ
Created by	ED
Modified by	ED
Modified at	2023-01-11
SVN Version	8496

			Title: TE0745	
			A4	Number: 1 93E31-AZ
Date: 2016-04-28		Copyright: Trenz Electronic GmbH / TT		Rev. 02
Filename:		Revision Changes.SchDoc		
Page1 of 25				

1

2

3

4

U_J1
J1.SchDoc

U_J2
J2.SchDoc

U_J3
J3.SchDoc

U_ZYNQ
ZYNQ.SchDoc

U_POWER
POWER.SchDoc

U_POWER_2
POWER_2.SchDoc

U_RTC
SENSOR-RTC.SchDoc

LOGO1

TE Logo PRINT Layer

LOGO PRINT

FIDU-DOT - small FIDU-DOT - small

PM1 FIDU-DOT - small PM2 FIDU-DOT - small

PM3 FIDU-DOT - small PM4 FIDU-DOT - small

PM5 PM6

U_POWER_3
POWER_3.SchDoc

U_CLK
CLK.SchDoc

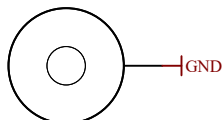
U_DDR3
DDR3-RAM.SchDoc

U_ETH_PHY
ETH-PHY.SchDoc

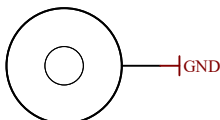
U_USB_PHY
USB-PHY.SchDoc

U_PowerOverview
PowerOverview.SchDoc

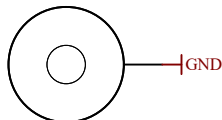
U_Revision Changes
Revision Changes.SchDoc



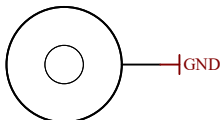
Mount.Hole 3.2mm für Unterlegscheibe



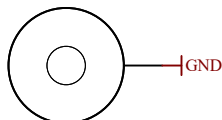
Mount.Hole 3.2mm für Unterlegscheibe



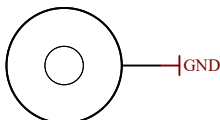
Mount.Hole 3.2mm für Unterlegscheibe



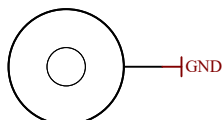
Mount.Hole 3.2mm für Unterlegscheibe



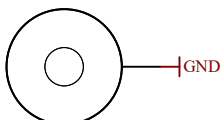
Mount.Hole 3.2mm für Unterlegscheibe



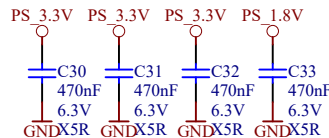
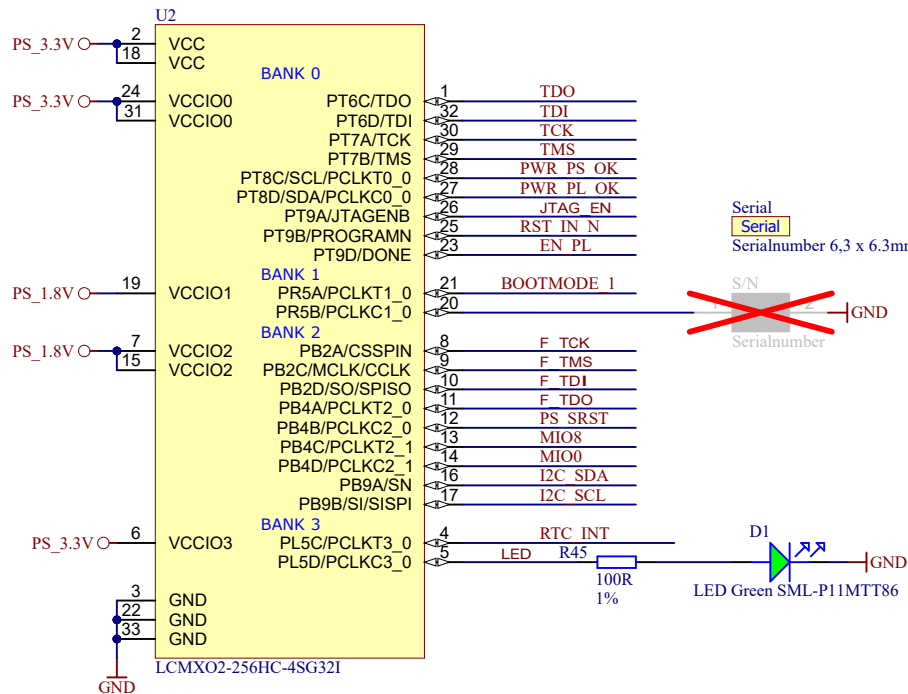
Mount.Hole 3.2mm für Unterlegscheibe



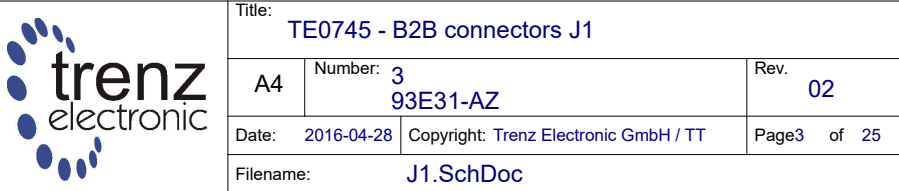
Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe



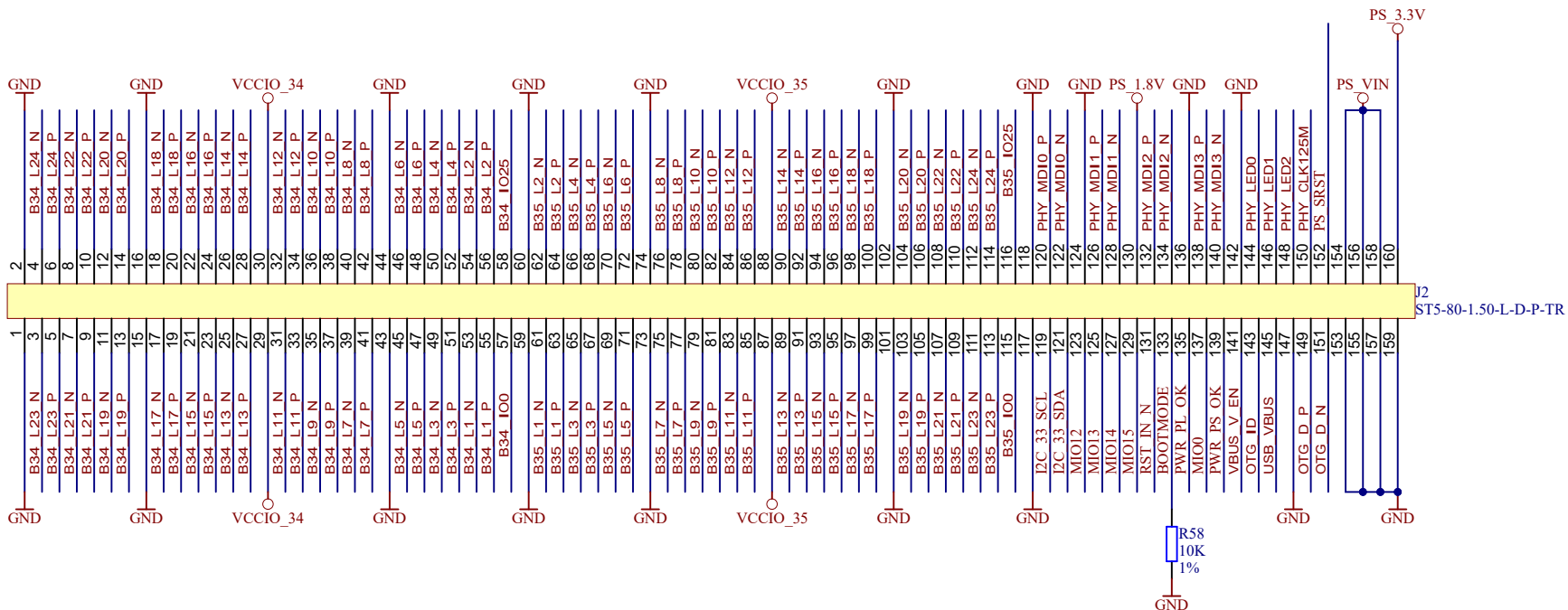
	Title: TE0745		
	A4	Number: 2 93E31-AZ	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page2 of 25
	Filename: TE0745.SchDoc		



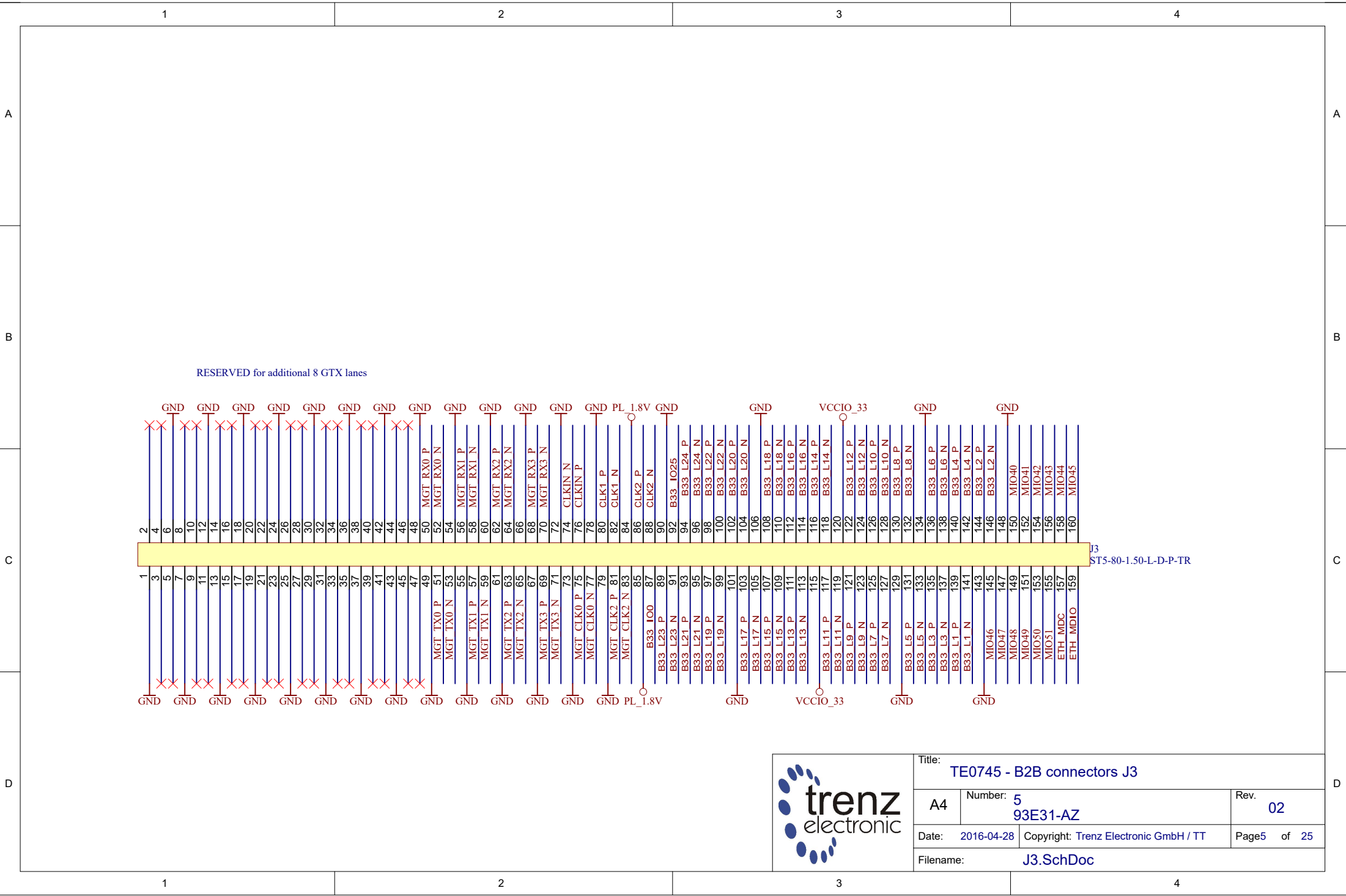
ETH_MDI

①

PHY_MDI1_P
PHY_MDI1_N
PHY_MDI3_P
PHY_MDI3_N
PHY_MDI0_P
PHY_MDI0_N
PHY_MDI2_P
PHY_MDI2_N



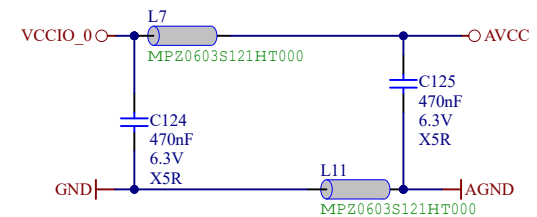
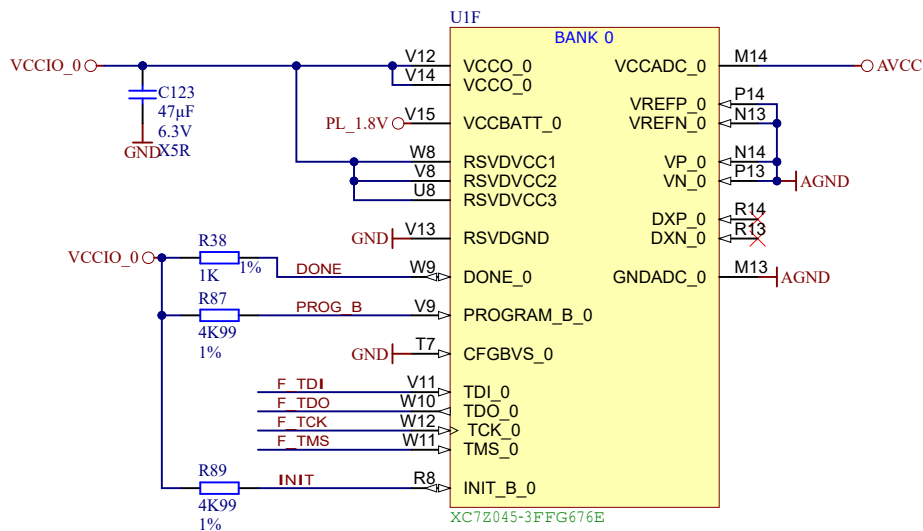
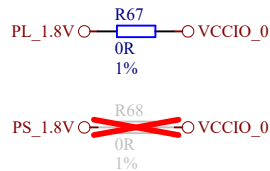
Title: TE0745 - B2B connectors J2		
A4	Number: 4 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page4 of 25
Filename: J2.SchDoc		



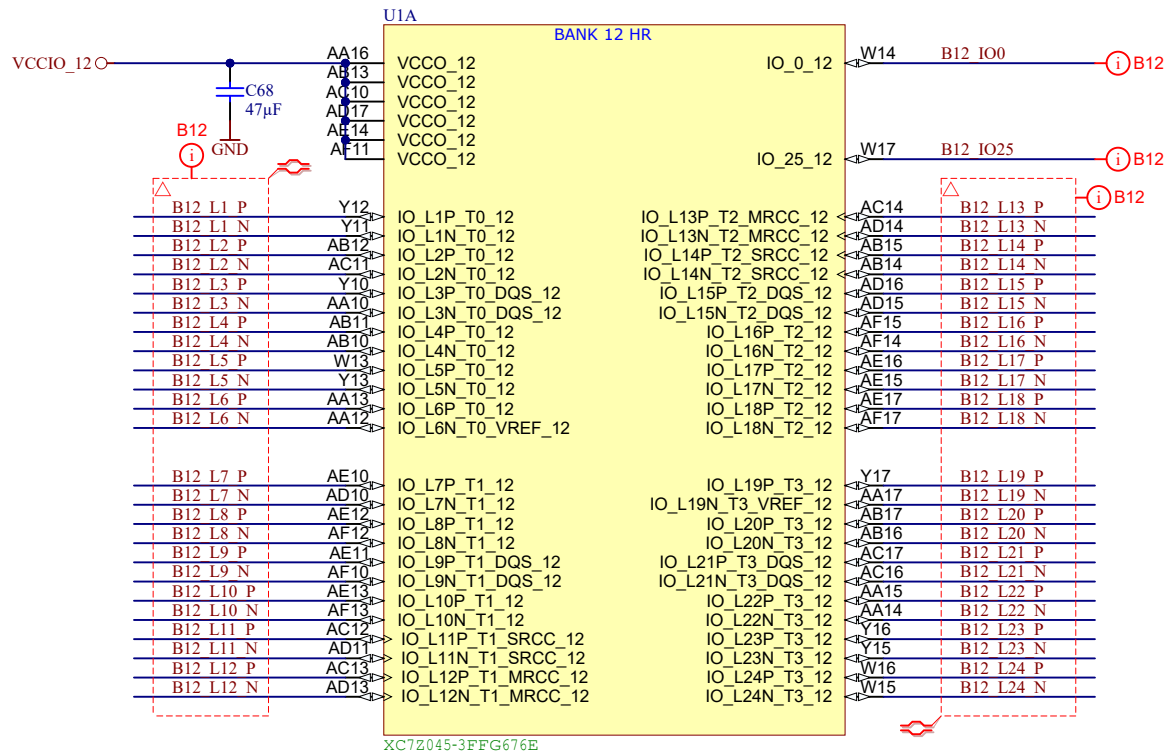


Title: TE0745 - B2B connectors J3		
A4	Number: 5 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page5 of 25
Filename: J3.SchDoc		

	1	2	3	4
A	U_B12 B12.SchDoc U_B13 B13.SchDoc U_B33 B33.SchDoc U_B34 B34.SchDoc U_B35 B35.SchDoc U_FPGA_MGT FPGA_MGT.SchDoc	U_B500 MIO_B500.SchDoc U_PS_DDR PS-DDR.SchDoc U_MISC ZYNQ_MISC.SchDoc U_ZYNQ_POWER ZYNC_POWER.SchDoc		
B				
C				
D				Title: TE0745 - Zynq A4 Number: 6 93E31-AZ Rev. 02 Date: 2016-04-28 Copyright: Trenz Electronic GmbH / TT Page6 of 25 Filename: ZYNQ.SchDoc
	1	2	3	4



		Title: TE0745 - Zynq_MISC	
		A4	Number: 7 93E31-AZ
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 7	of 25
Filename: ZYNQ_MISC.SchDoc		Rev. 02	



	Title: TE0745 - Zynq_B12		
	A4	Number: 8 93E31-AZ	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page8 of 25
	Filename: B12.SchDoc		

1

2

3

4

A

A

B

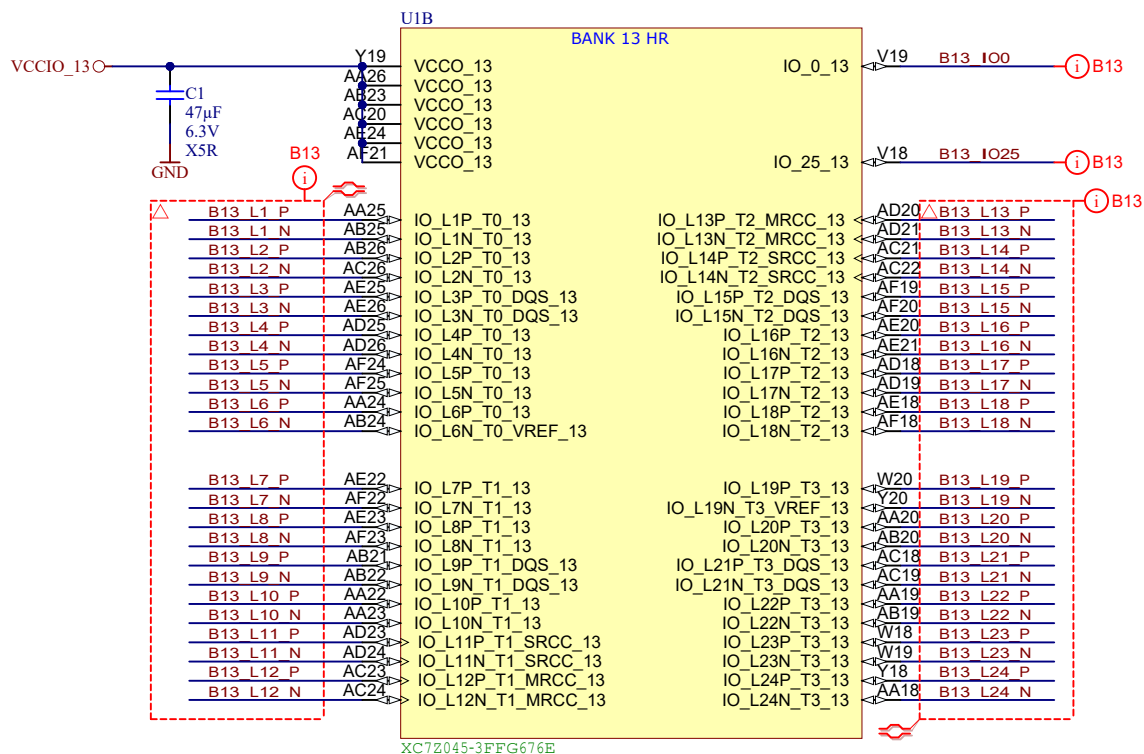
B

C

C

D

D



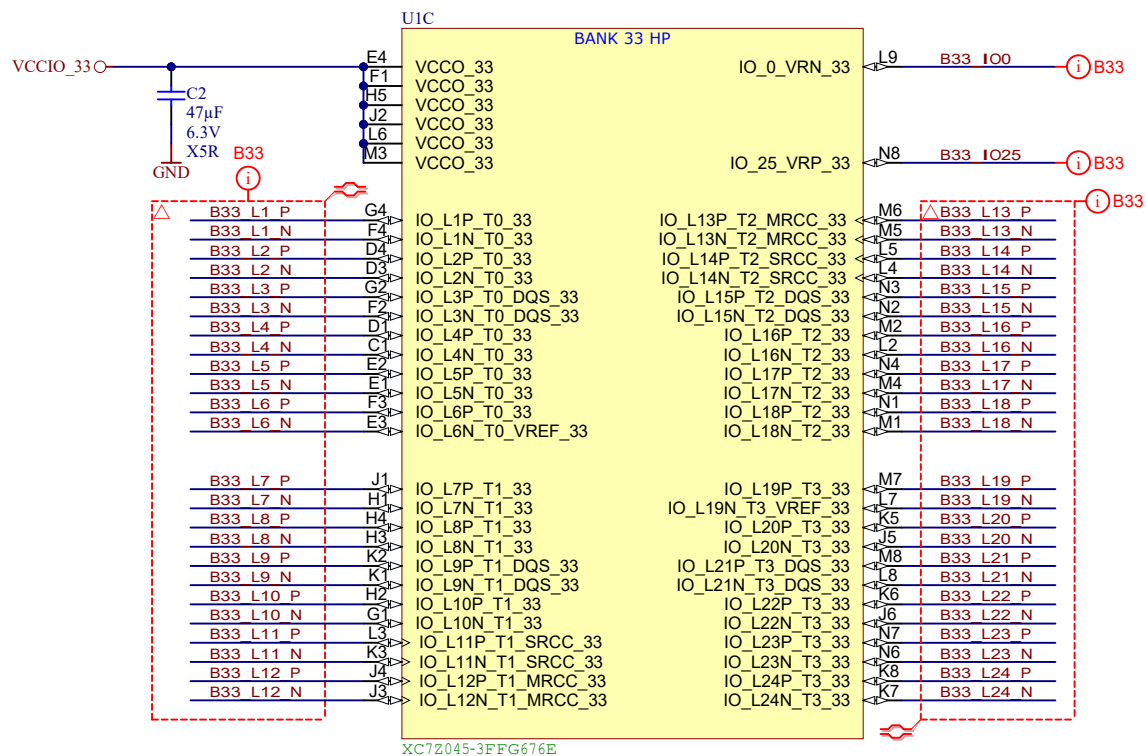
Title: TE0745 - Zynq_B13			
A4	Number: 9	Rev. 02	
	93E31-AZ		
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT		Page9 of 25
Filename: B13.SchDoc			

1

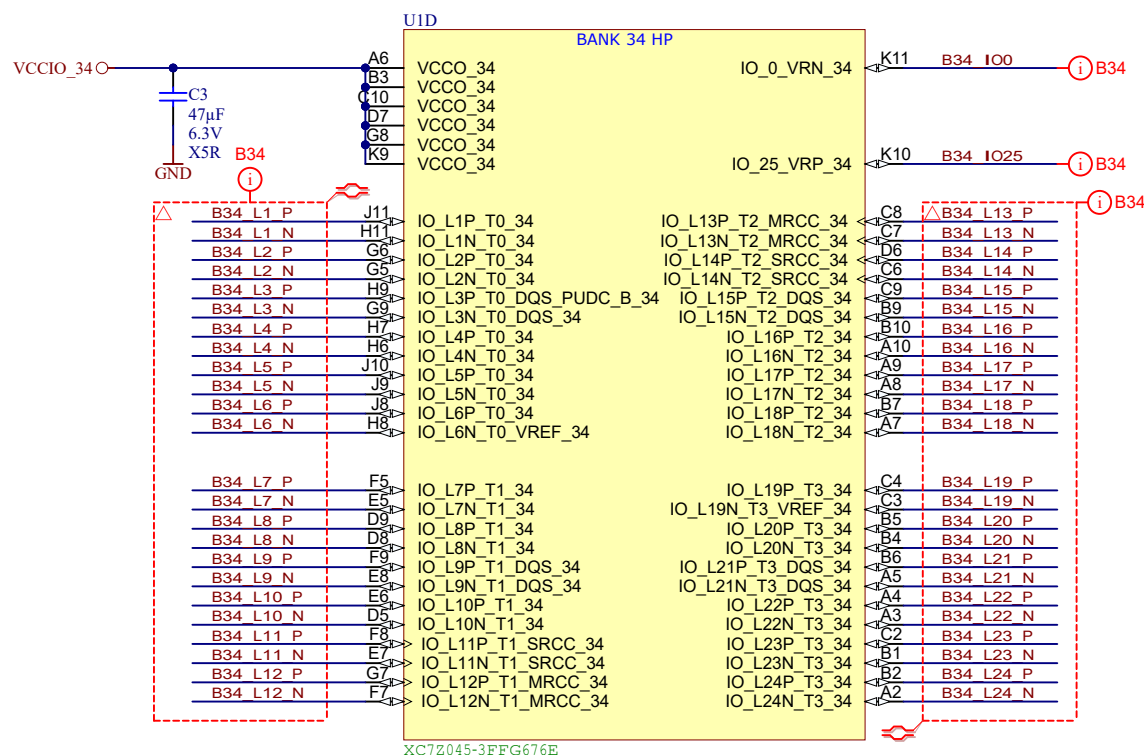
2

3

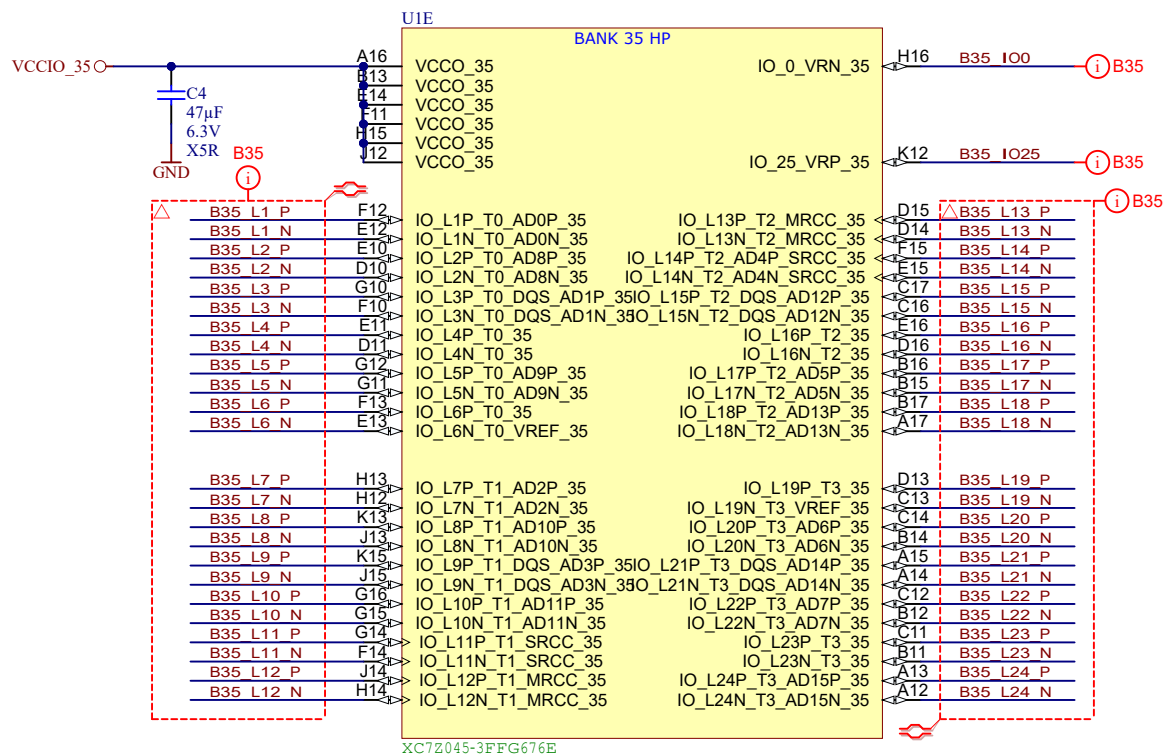
4



Title: TE0745 - Zynq_B33		
A4	Number: 10 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	
Filename: B33.SchDoc		Page10 of 25



Title: TE0745 - Zynq_B34		
A4	Number: 11 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 11 of 25
Filename: B34.SchDoc		



Title: TE0745 - Zynq_B35		
A4	Number: 12 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 12 of 25
Filename: B35.SchDoc		

1

2

3

4

MGT_CLK

MGT_CLK0_P
MGT_CLK0_N
MGT_CLK1_N
MGT_CLK1_P

MGT_CLK2_P
MGT_CLK2_N
MGT_CLK3_N
MGT_CLK3_P

MGTAVCC

C133
4.7µF
6.3V
GNDX5R

MGTAUX

C135
4.7µF
6.3V
GNDX5R

U11

R4
T6
U4
Y6
AA4
AA8
AB6
AC8
AD6
AE8
V6

MGTVCCAUX

BANK 111

MGT_CLK2_P W6
MGT_CLK2_N W5
MGT_CLK3_P AA6
MGT_CLK3_N AA5

MGTREFCLK0P_111
MGTREFCLK0N_111
MGTREFCLK1P_111
MGTREFCLK1N_111

MGT_RX4_P AD8
MGT_RX4_N AD7
MGT_RX5_P AE6
MGT_RX5_N AE5
MGT_RX6_P AC6
MGT_RX6_N AC5
MGT_RX7_P AD4
MGT_RX7_N AD3

MGTXRXN0_111
MGTXRXN1_111
MGTXRXN2_111
MGTXRXN3_111

BANK 112

MGT_CLK0_P R6
MGT_CLK0_N R5
MGT_CLK1_P U6
MGT_CLK1_N U5

MGTREFCLK0P_112
MGTREFCLK0N_112
MGTREFCLK1P_112
MGTREFCLK1N_112

MGT_RX0_P AB4
MGT_RX0_N AB3
MGT_RX1_P Y4
MGT_RX1_N Y3
MGT_RX2_P V4
MGT_RX2_N V3
MGT_RX3_P T4
MGT_RX3_N T3

MGTXRXN0_112
MGTXRXN1_112
MGTXRXN2_112
MGTXRXN3_112

XC7Z045-3FFG676E

MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT
MGTAVTT

T2
V2
W2
Y2
AB2
AC4
AD2
AE4
AF2
AF6

MGTAVTT

C134
4.7µF
6.3V
GNDX5R

MGT_RX

MGT_RX0_P
MGT_RX0_N
MGT_RX1_P
MGT_RX1_N
MGT_RX2_P
MGT_RX2_N
MGT_RX3_P
MGT_RX3_N

MGT_RX4_P
MGT_RX4_N
MGT_RX5_P
MGT_RX5_N
MGT_RX6_P
MGT_RX6_N
MGT_RX7_P
MGT_RX7_N

MGT_TX

MGT_TX4_P
MGT_TX4_N
MGT_TX5_P
MGT_TX5_N
MGT_TX6_P
MGT_TX6_N
MGT_TX7_P
MGT_TX7_N

MGT_TX0_P
MGT_TX0_N
MGT_TX1_P
MGT_TX1_N
MGT_TX2_P
MGT_TX2_N
MGT_TX3_P
MGT_TX3_N



Title:

TE0745 - Zynq_MGT

A4

Number: 13
93E31-AZ

Rev.

02

Date: 2016-04-28

Copyright: Trenz Electronic GmbH / TT

Page13 of 25

Filename:

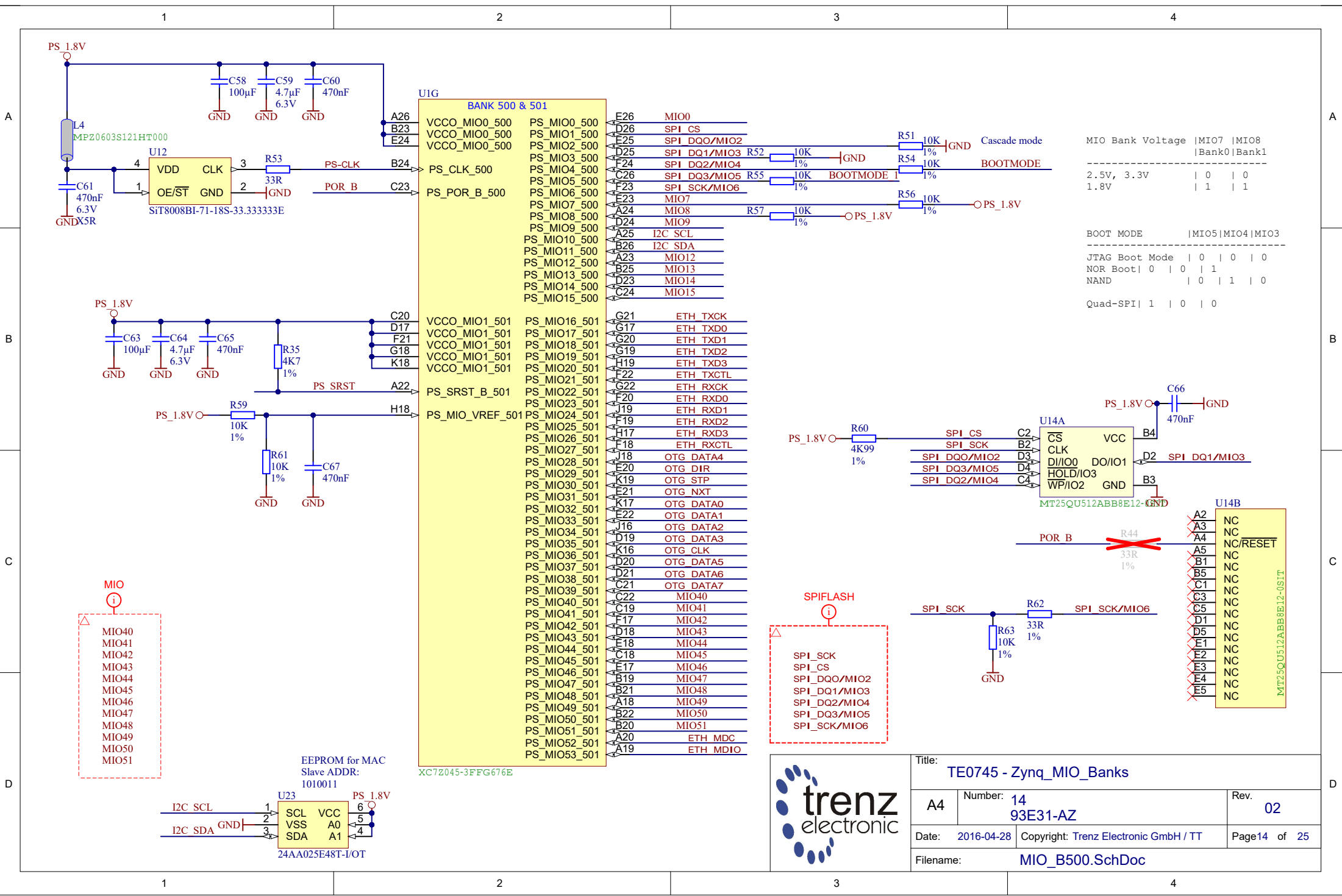
FPGA_MGT.SchDoc

1

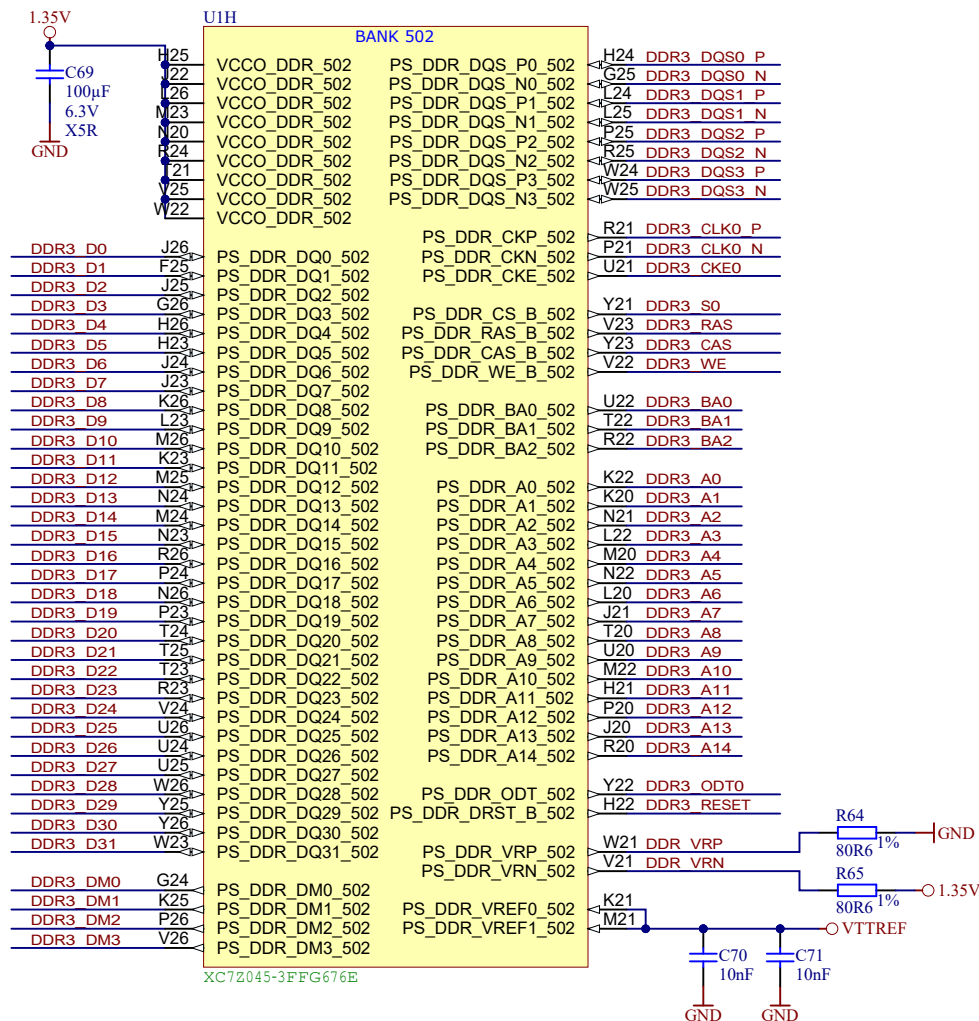
2

3

4



Title: TE0745 - Zynq_MIO_Banks		
A4	Number: 14 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 14 of 25
Filename: MIO_B500.SchDoc		



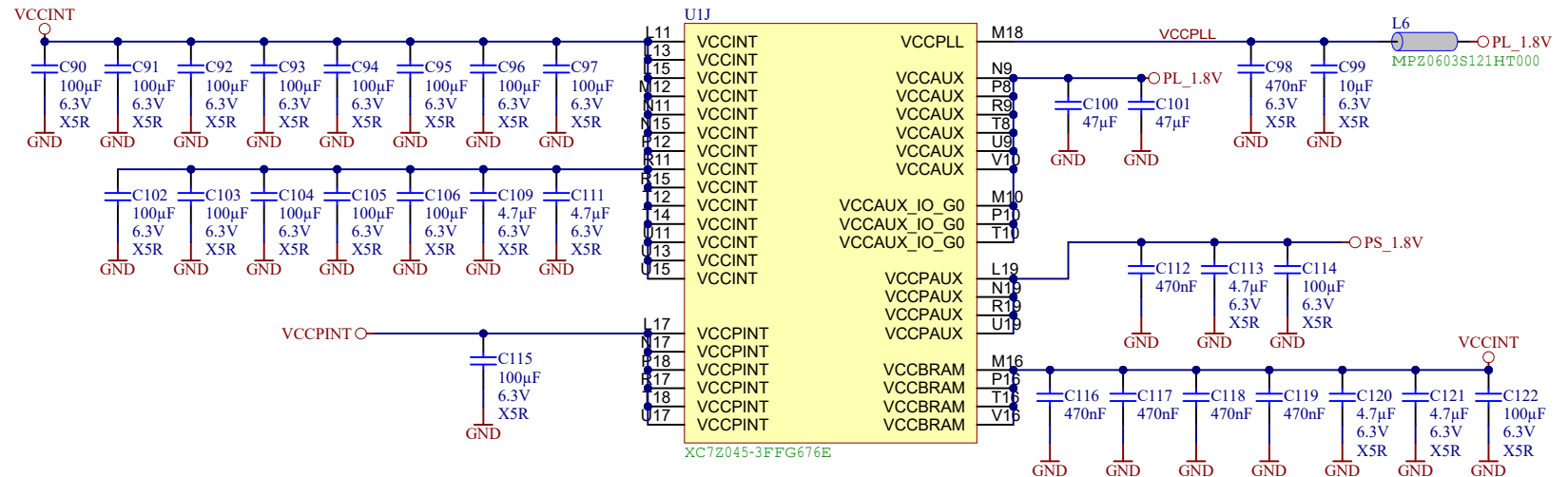
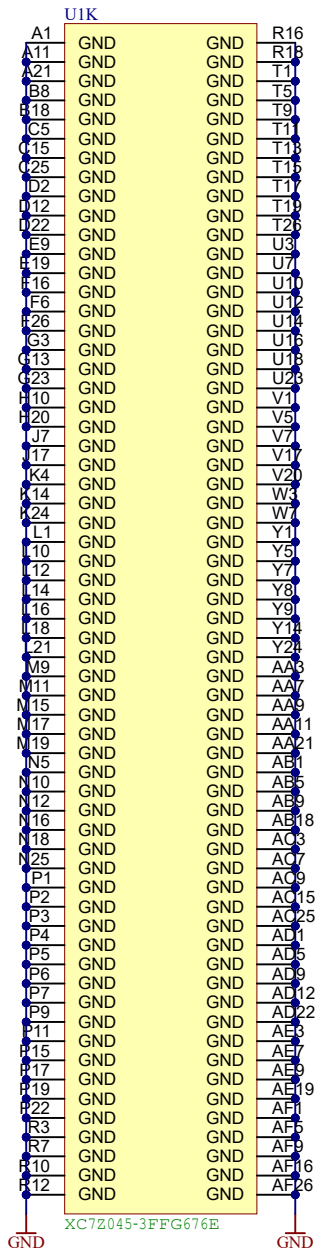
DDR3 A0	DDR3 BA0
DDR3 A1	DDR3 BA1
DDR3 A2	DDR3 BA2
DDR3 A3	
DDR3 A4	DDR3 WE
DDR3 A5	DDR3 CAS
DDR3 A6	DDR3 RAS
DDR3 A7	
DDR3 A8	DDR3 ODT0
DDR3 A9	DDR3 S0
DDR3 A10	DDR3 CKE0
DDR3 A11	
DDR3 A12	DDR3 CLK0 P
DDR3 A13	DDR3 CLK0 N
DDR3 A14	

LANE0	LANE1
DDR3 D0	DDR3 D8
DDR3 D1	DDR3 D9
DDR3 D2	DDR3 D10
DDR3 D3	DDR3 D11
DDR3 D4	DDR3 D12
DDR3 D5	DDR3 D13
DDR3 D6	DDR3 D14
DDR3 D7	DDR3 D15
DDR3 DM0	DDR3 DM1
DDR3 DQS0 P	DDR3 DQS1 P
DDR3 DQS0 N	DDR3 DQS1 N

LANE2	LANE3
DDR3 D16	DDR3 D24
DDR3 D17	DDR3 D25
DDR3 D18	DDR3 D26
DDR3 D19	DDR3 D27
DDR3 D20	DDR3 D28
DDR3 D21	DDR3 D29
DDR3 D22	DDR3 D30
DDR3 D23	DDR3 D31
DDR3 DM2	DDR3 DM3
DDR3 DQS2 P	DDR3 DQS3 P
DDR3 DQS2 N	DDR3 DQS3 N



Title: TE0745 - Zynq_PS_DDR		
A4	Number: 15 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	
Filename: PS-DDR.SchDoc	Page 15 of 25	



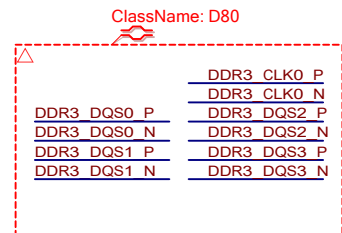
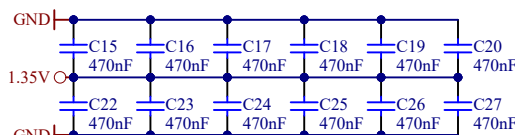
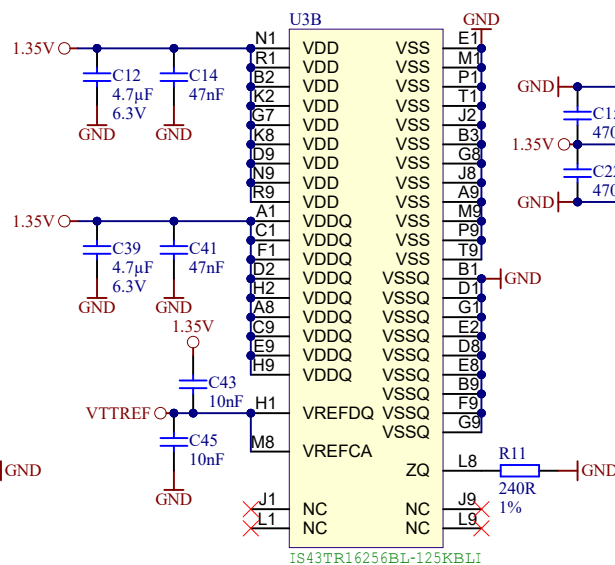
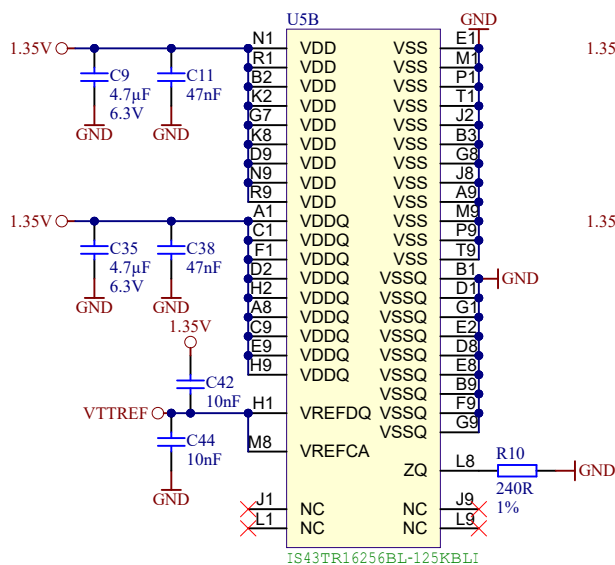
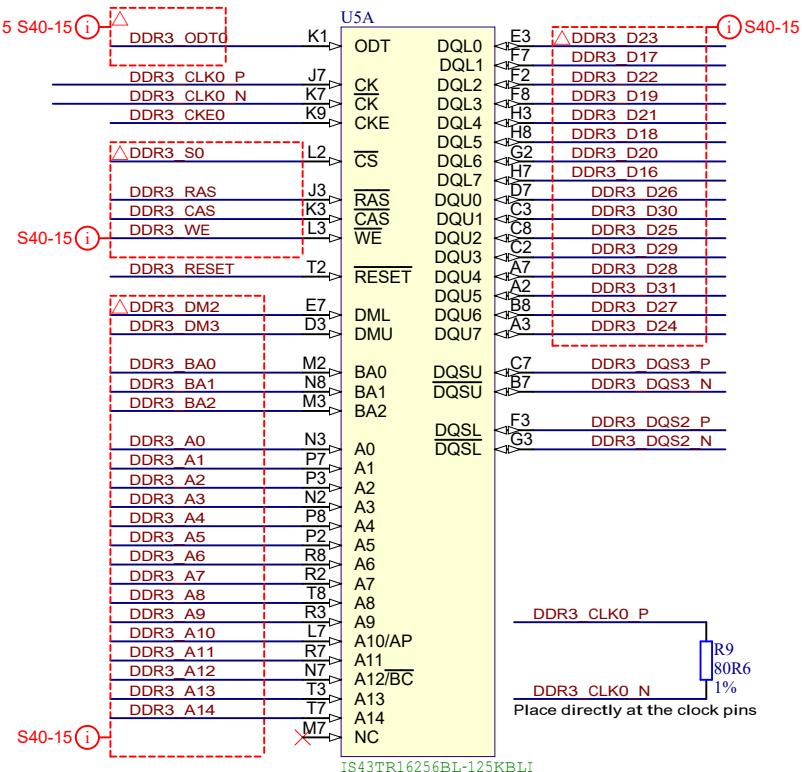
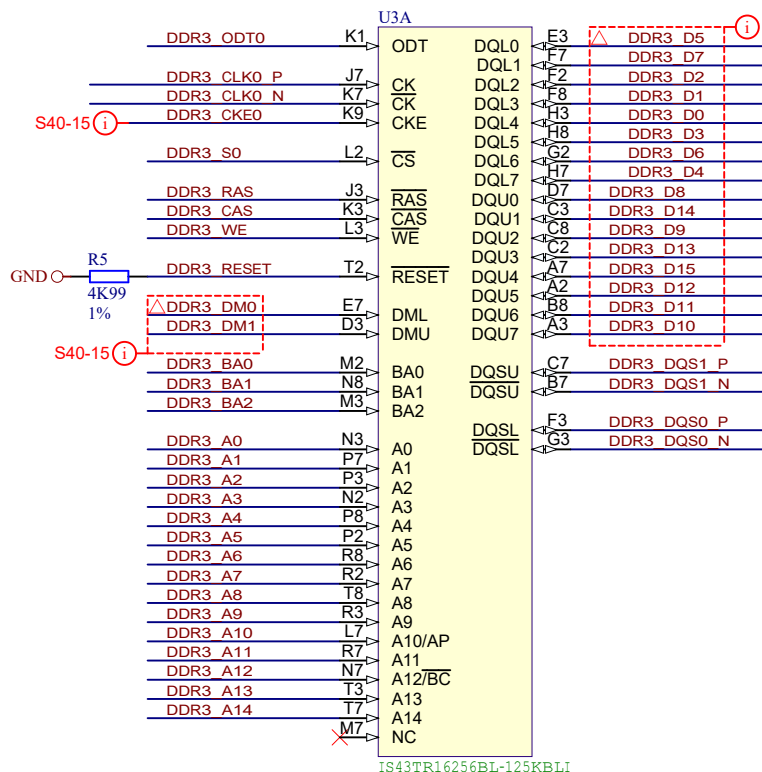
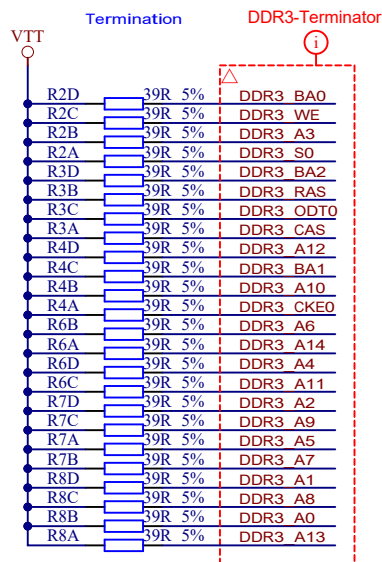
		Title: TE0745 - Zynq_Power	
		A4 Number: 16 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT		Page 16 of 25
Filename: ZYNC_POWER.SchDoc			

1

2

3

4



Title: TE0745 - DDR3 RAM		
A4	Number: 17 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH	Page 17 of 25
Filename: DDR3-RAM.SchDoc		

1

2

3

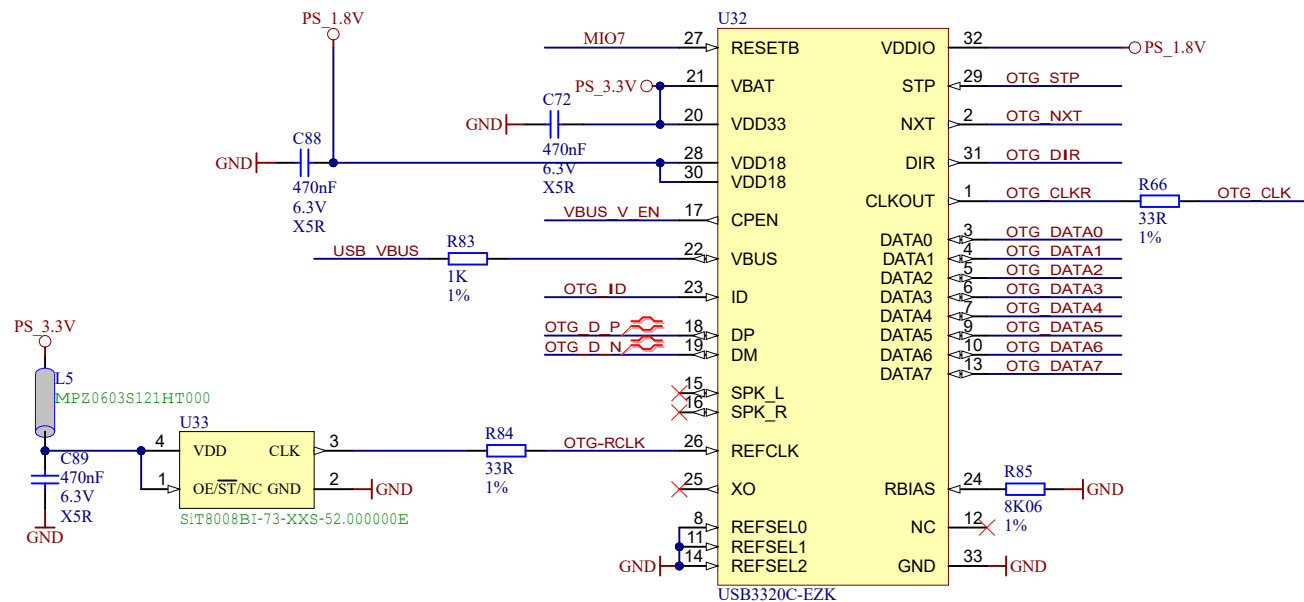
4

1

2

3

4



ULPI

OTG_STP
OTG_NXT
OTG_DIR
OTG_CLKR
OTG_DATA0
OTG_DATA1
OTG_DATA2
OTG_DATA3
OTG_DATA4
OTG_DATA5
OTG_DATA6
OTG_DATA7



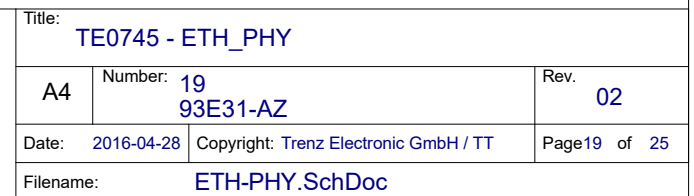
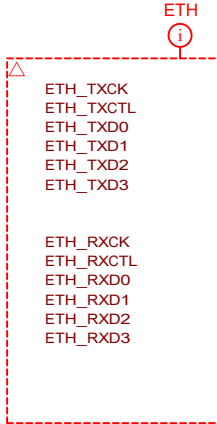
Title: TE0745 - USB_PHY			
A4	Number: 18 93E31-AZ	Rev. 02	
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT		Page 18 of 25
Filename: USB-PHY.SchDoc			

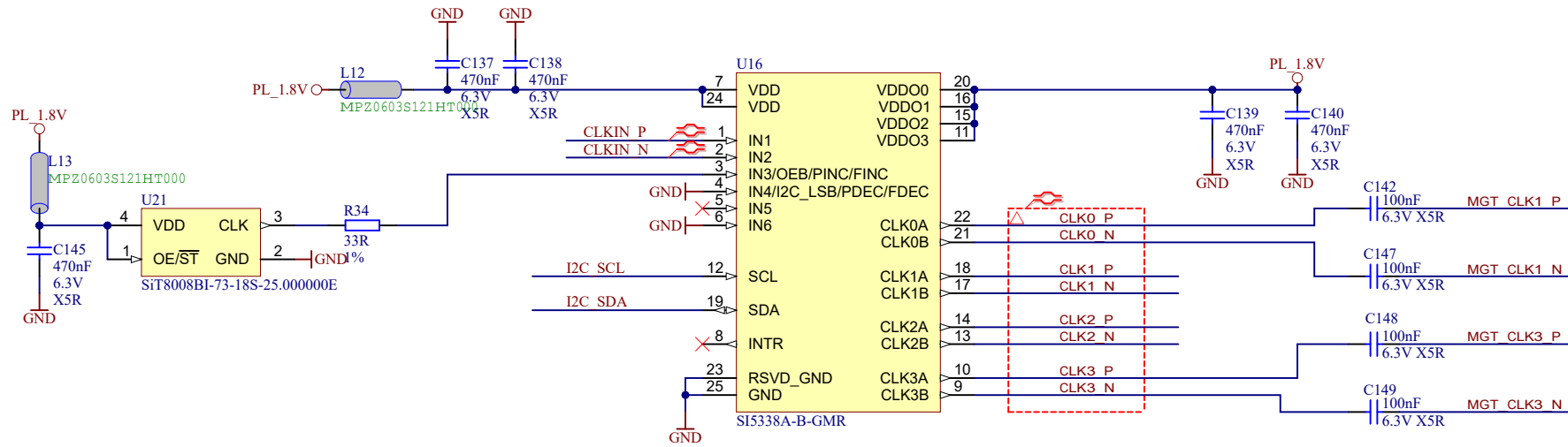
1

2

3

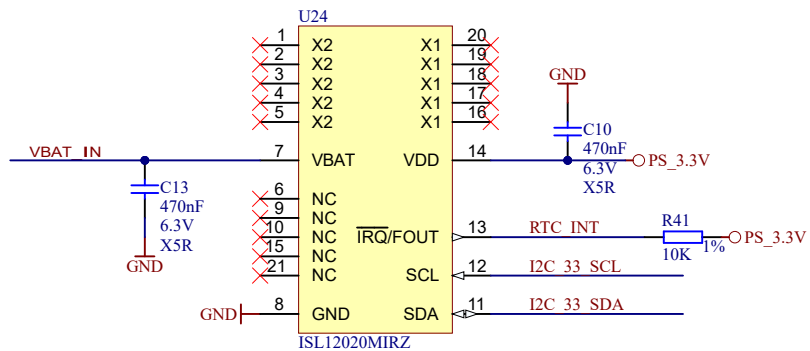
4





Slave ADDR:
1110000 OR 1110001

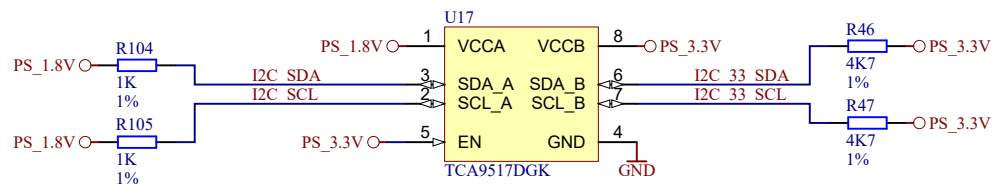
		Title: TE0745 - CLK	
		A4	Rev. 02
Date: 2016-04-28	Number: 20 93E31-AZ	Copyright: Trenz Electronic GmbH / TT	
Filename: CLK.SchDoc		Page 20 of 25	



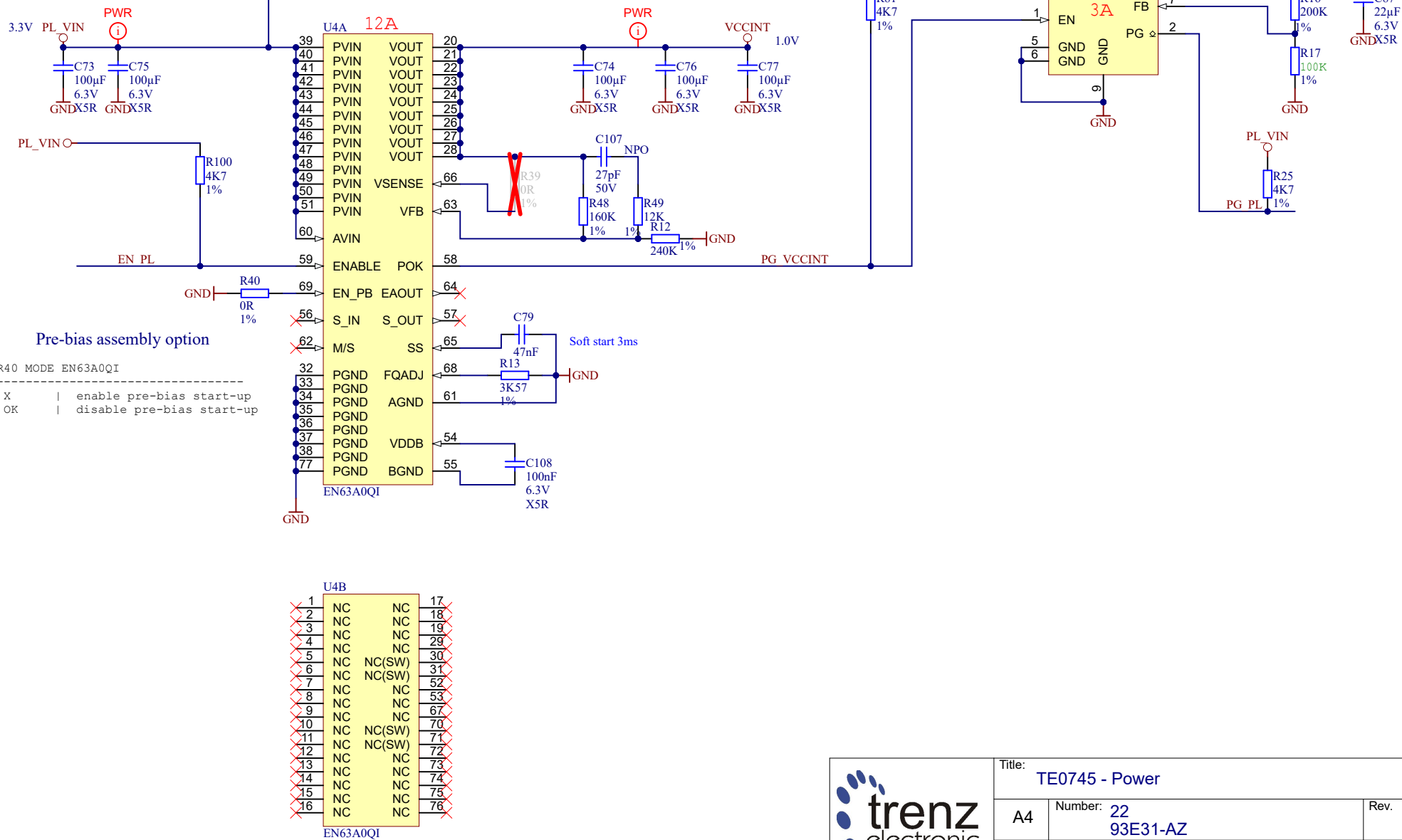
Slave ADDR:

for RTC registers: 1101111

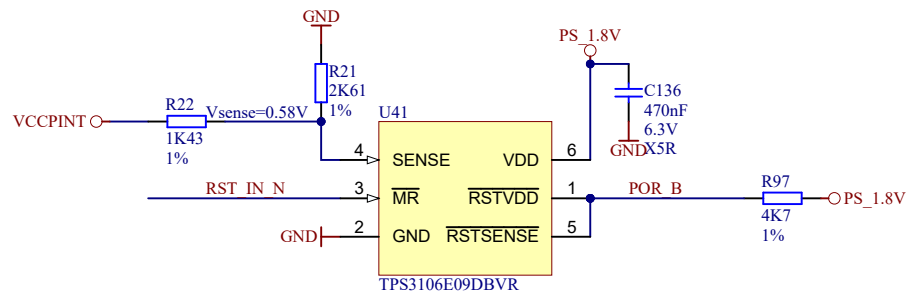
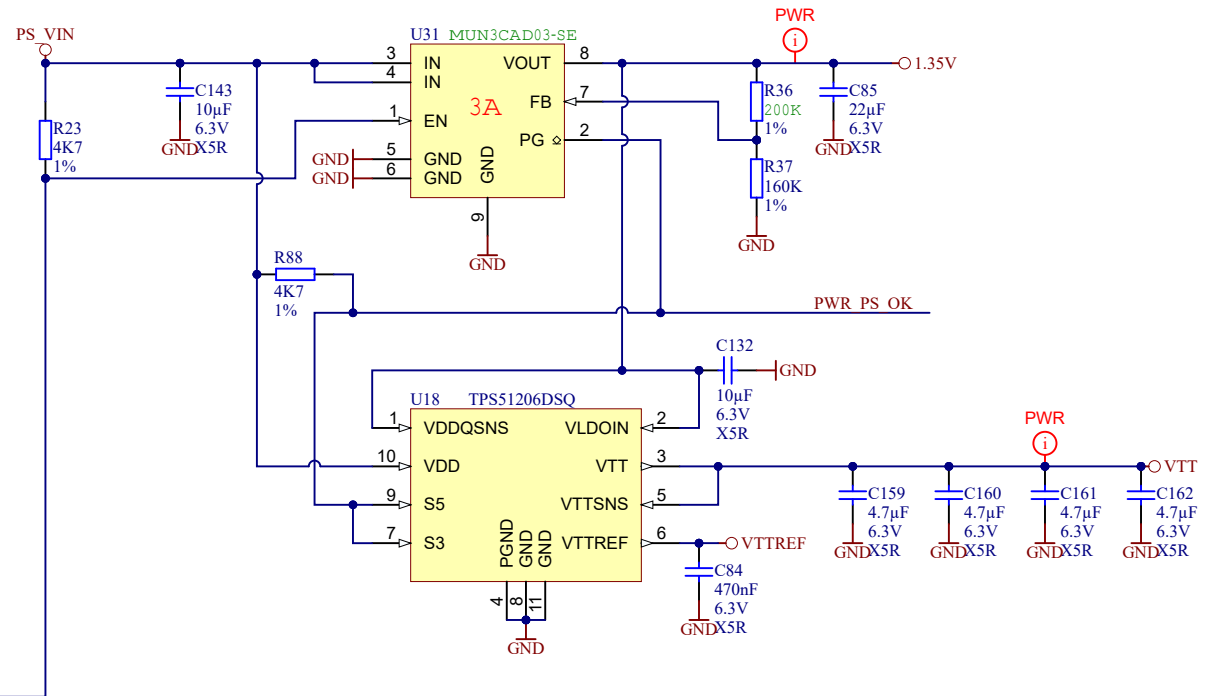
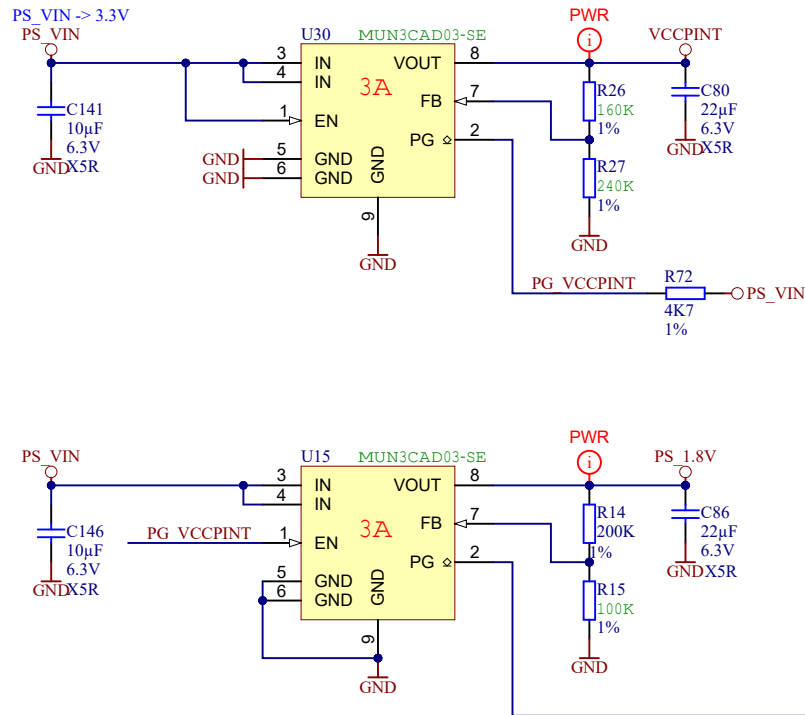
for User SRAM: 1010111



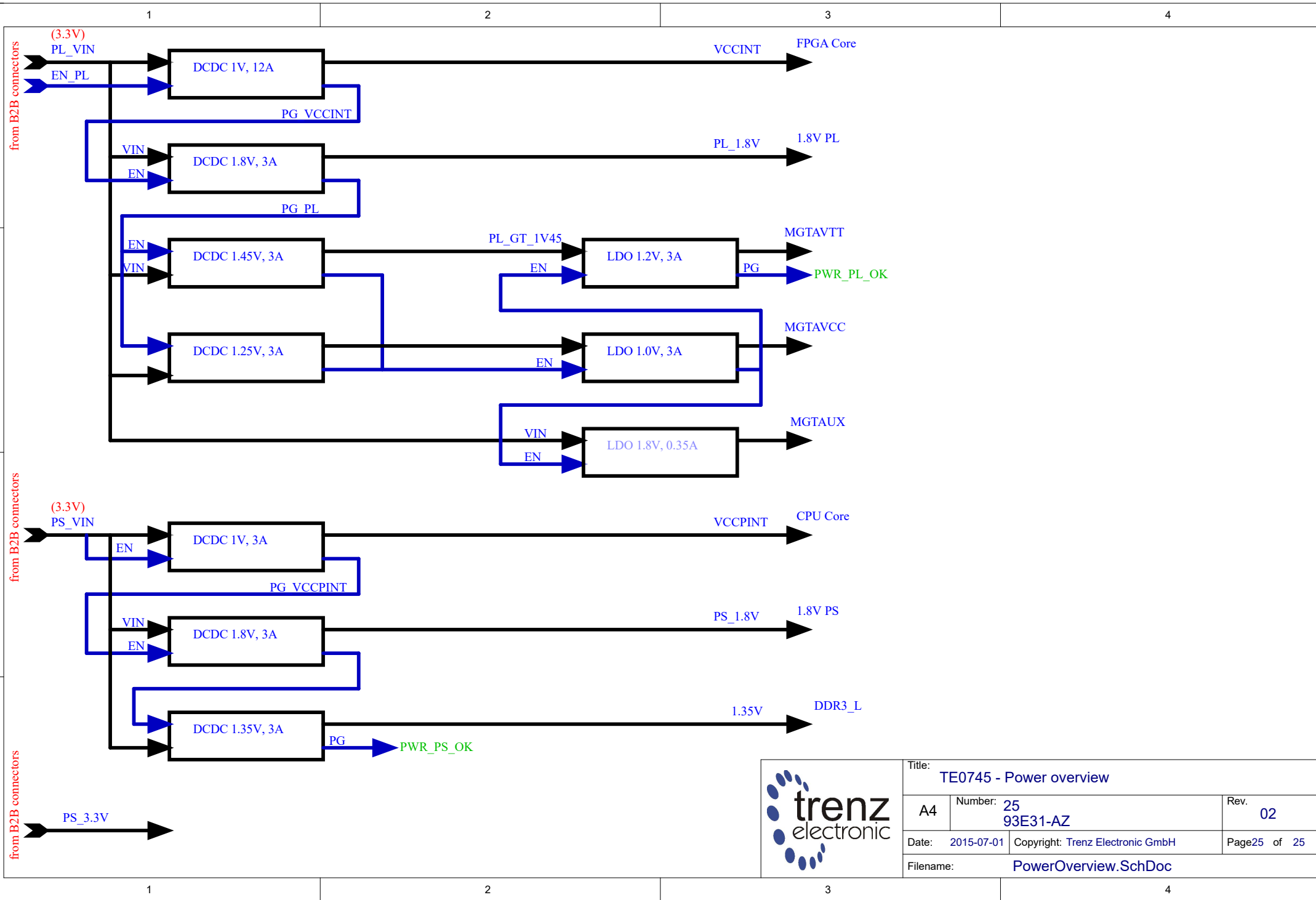
		Title: TE0745 - RTC	
		A4	Rev. 02
Date: 2016-04-28	Number: 21 93E31-AZ	Copyright: Trenz Electronic GmbH / TT	
Filename: SENSOR-RTC.SchDoc		Page21 of 25	



Title: TE0745 - Power		
A4	Number: 22 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	
Filename: POWER.SchDoc	Page22 of 25	



Title: TE0745 - Power2		
A4	Number: 23 93E31-AZ	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page23 of 25
Filename: POWER_2.SchDoc		



Title: TE0745 - Power overview		
A4	Number: 25 93E31-AZ	Rev. 02
Date: 2015-07-01	Copyright: Trenz Electronic GmbH	
Filename: PowerOverview.SchDoc		Page25 of 25