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CHANGES REV01 to REV02

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

A

A

B

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C

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D

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Title: TE0745		
A4	Number: 1 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page1 of 25
Filename: Revision Changes.SchDoc		

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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

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

LOGO1
TE Logo PRINT Layer
LOGO PRINT

FIDU-DOT - small FIDU-DOT - small



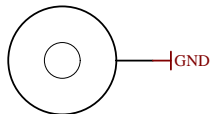
PM1 PM2
FIDU-DOT - small FIDU-DOT - small



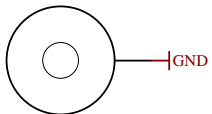
PM3 PM4
FIDU-DOT - small FIDU-DOT - small



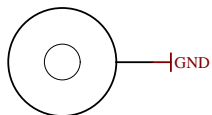
PM5 PM6



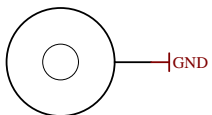
Mount.Hole 3.2mm für Unterlegscheibe



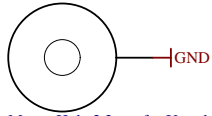
Mount.Hole 3.2mm für Unterlegscheibe



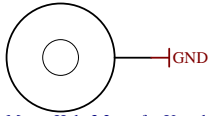
Mount.Hole 3.2mm für Unterlegscheibe



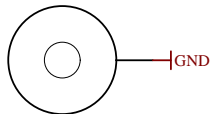
Mount.Hole 3.2mm für Unterlegscheibe



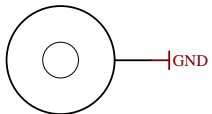
Mount.Hole 3.2mm für Unterlegscheibe



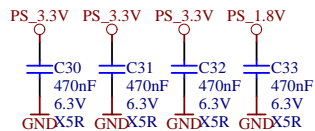
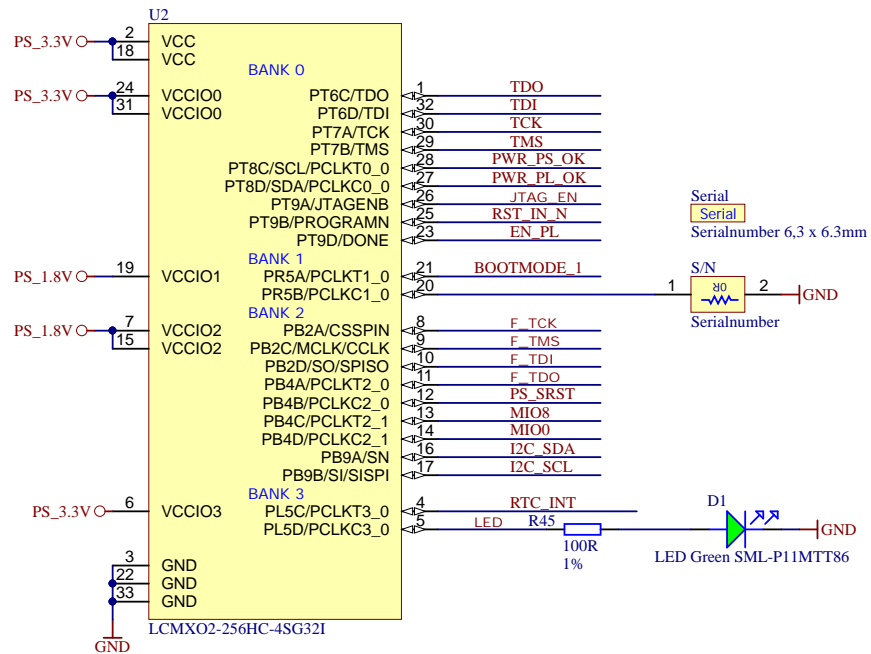
Mount.Hole 3.2mm für Unterlegscheibe



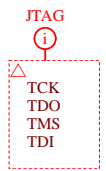
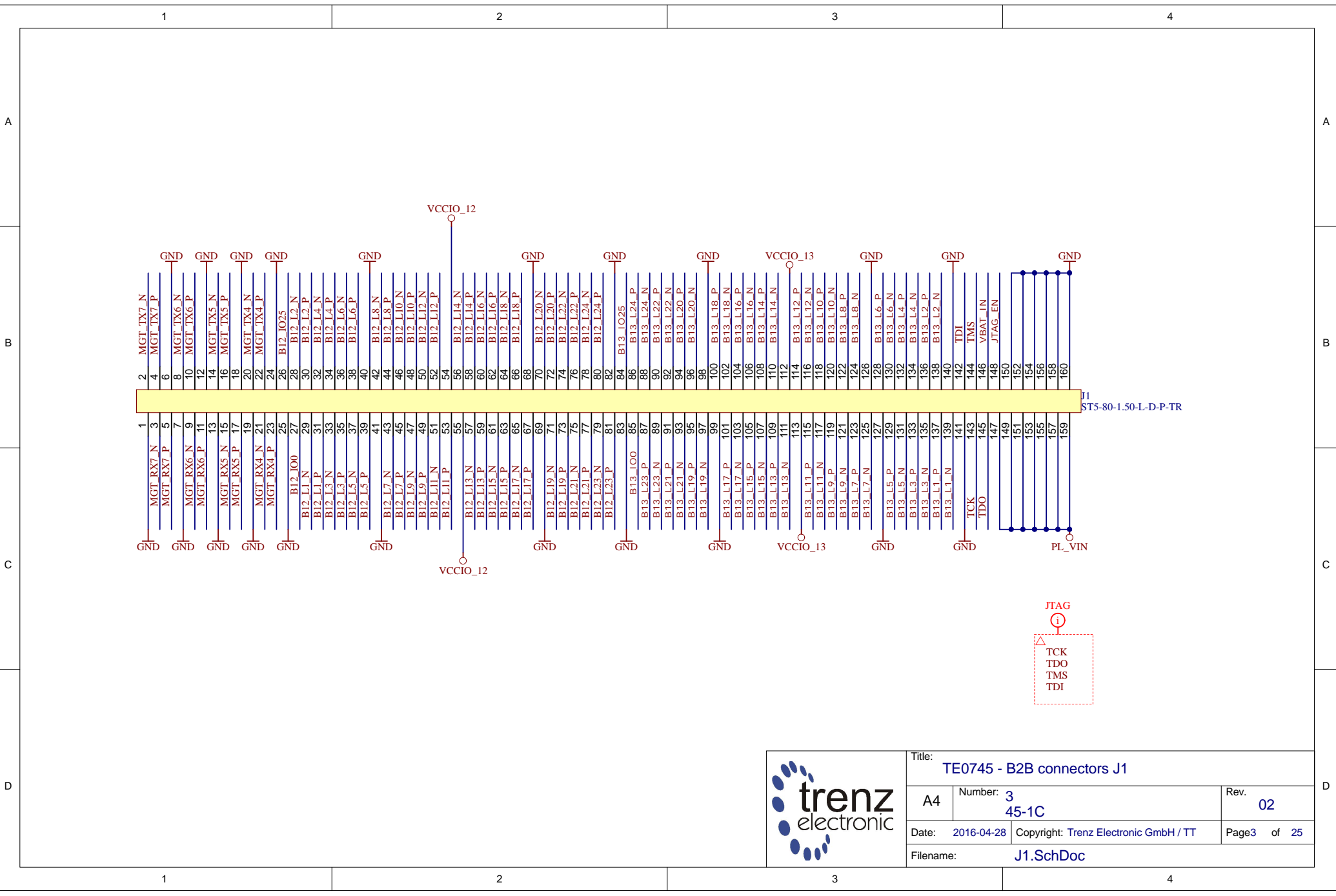
Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe



Title: TE0745		
A4	Number: 2 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page2 of 25
Filename: TE0745.SchDoc		

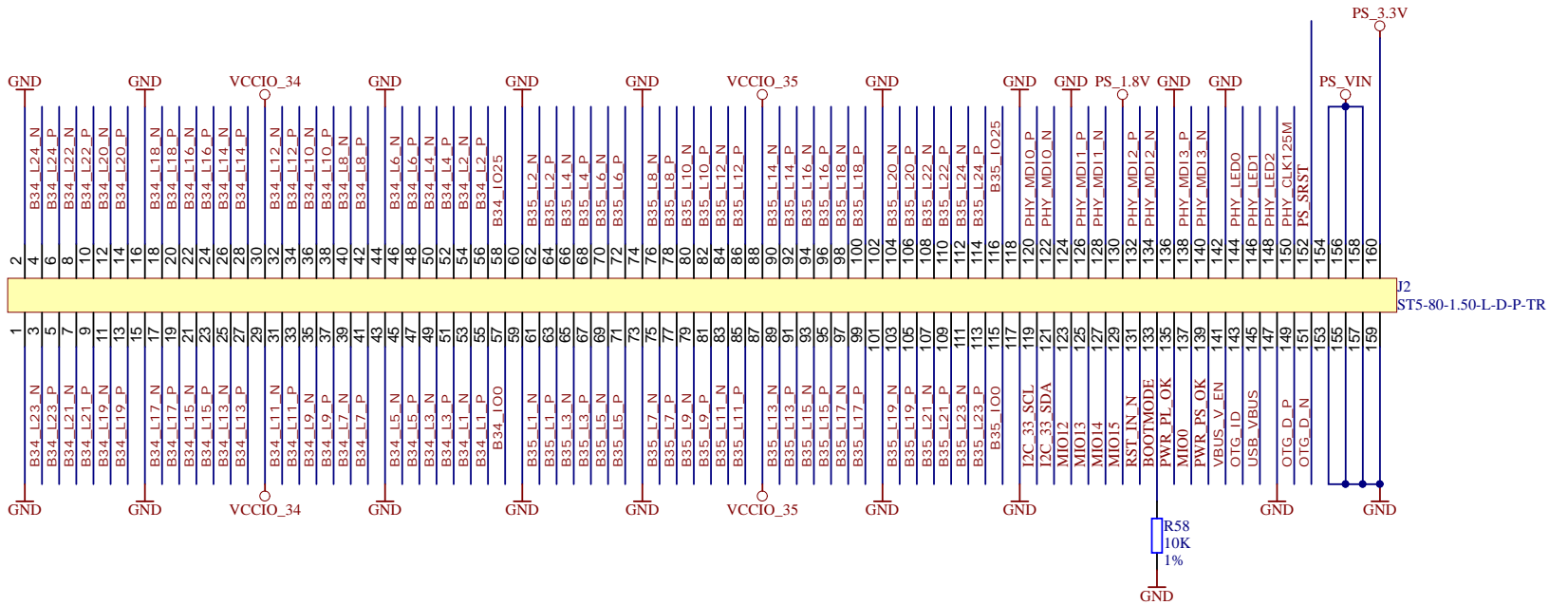


	Title: TE0745 - B2B connectors J1		
	A4	Number: 3 45-1C	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page3 of 25
	Filename: J1.SchDoc		

ETH_MDI

i

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 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page4 of 25
Filename: J2.SchDoc		

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A

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B

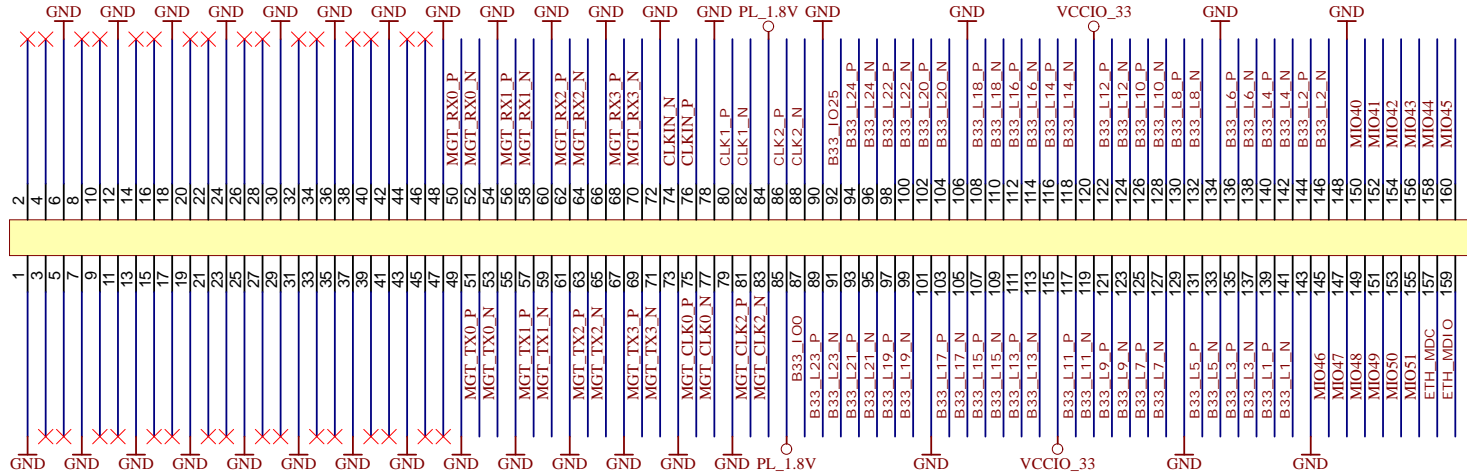
C

C

D

D

RESERVED for additional 8 GTX lanes



J3
ST5-80-1.50-L-D-P-TR



Title: TE0745 - B2B connectors J3		
A4	Number: 5 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page5 of 25
Filename: J3.SchDoc		

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U_B12
B12.SchDoc



U_B500
MIO_B500.SchDoc



U_B13
B13.SchDoc



U_PS_DDR
PS-DDR.SchDoc



U_B33
B33.SchDoc



U_MISC
ZYNQ_MISC.SchDoc



U_B34
B34.SchDoc



U_ZYNQ_POWER
ZYNQ_POWER.SchDoc



U_B35
B35.SchDoc



U_FPGA_MGT
FPGA_MGT.SchDoc



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A

A

B


B

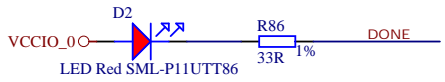
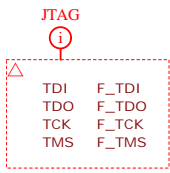
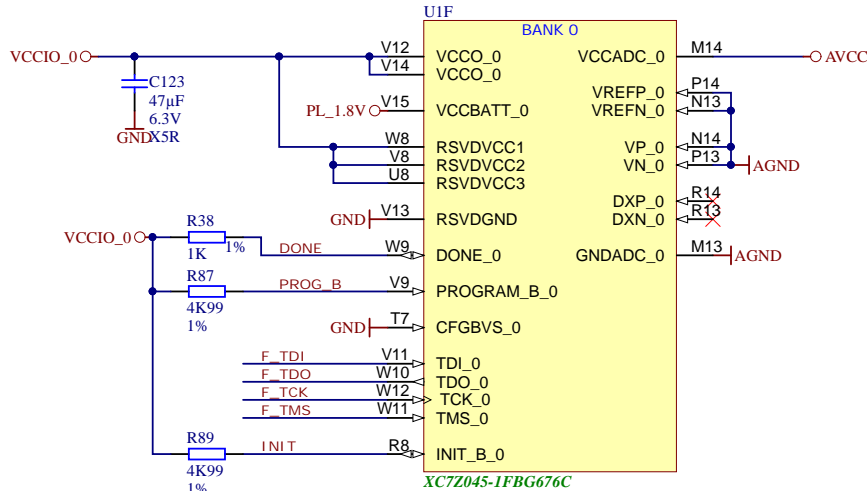
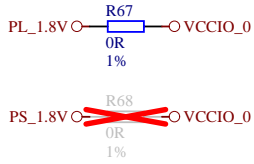
C

C

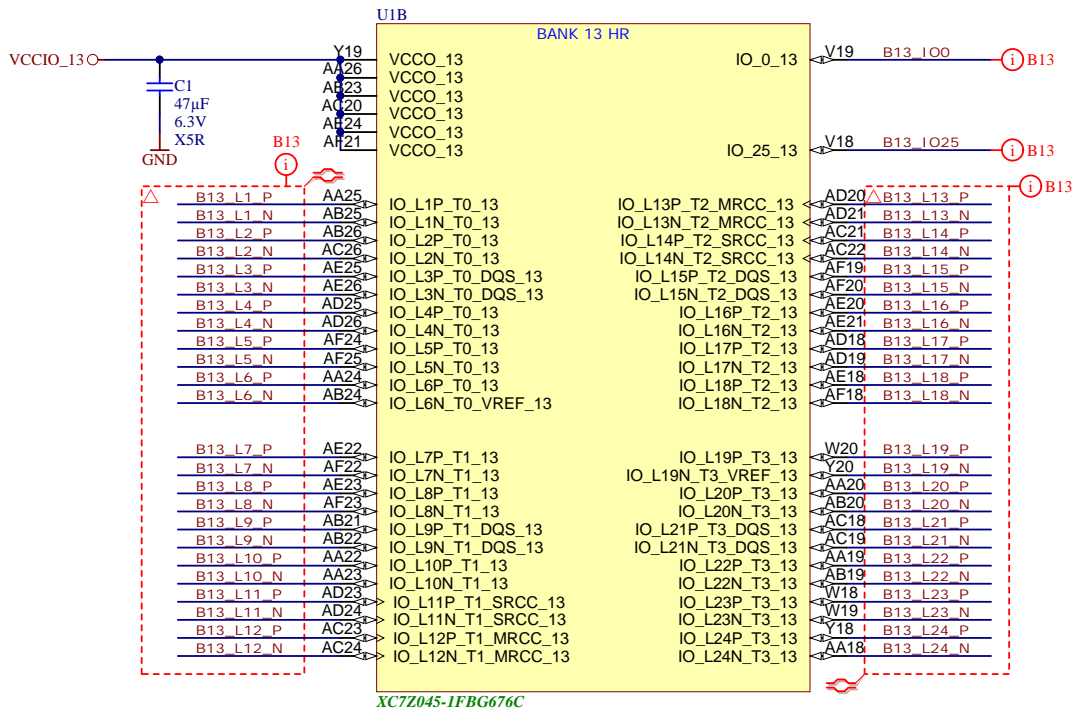
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D

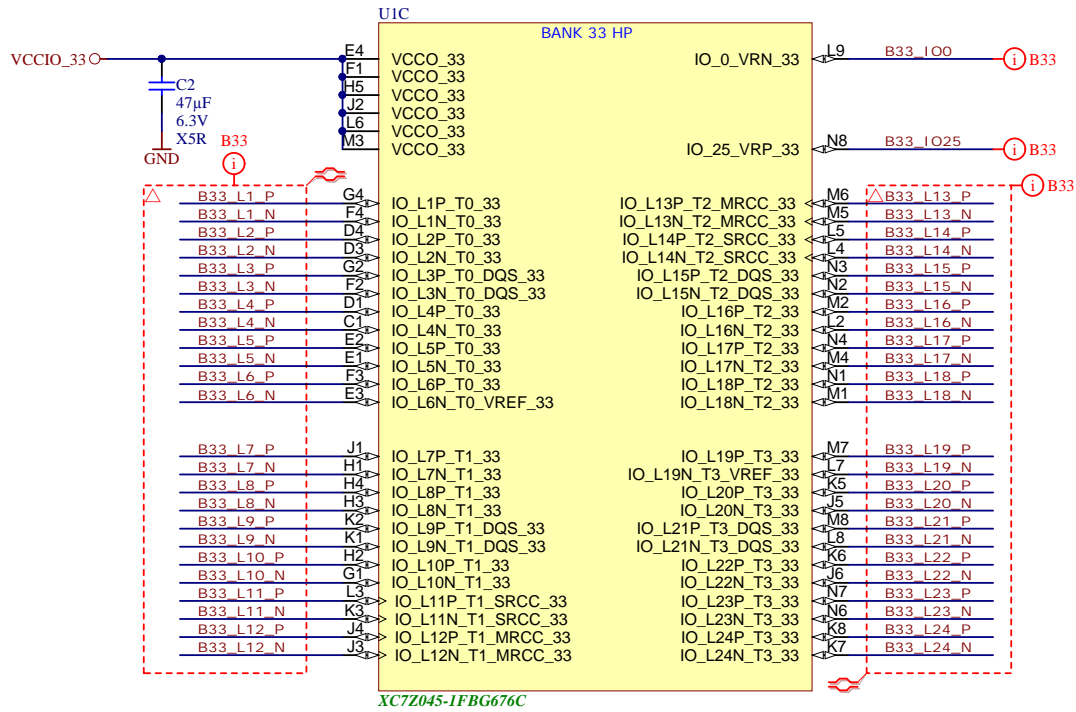
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		A4	Number: 6 45-1C
Date: 2016-04-28		Copyright: Trenz Electronic GmbH / TT	
Filename: ZYNQ.SchDoc		Page6 of 25	



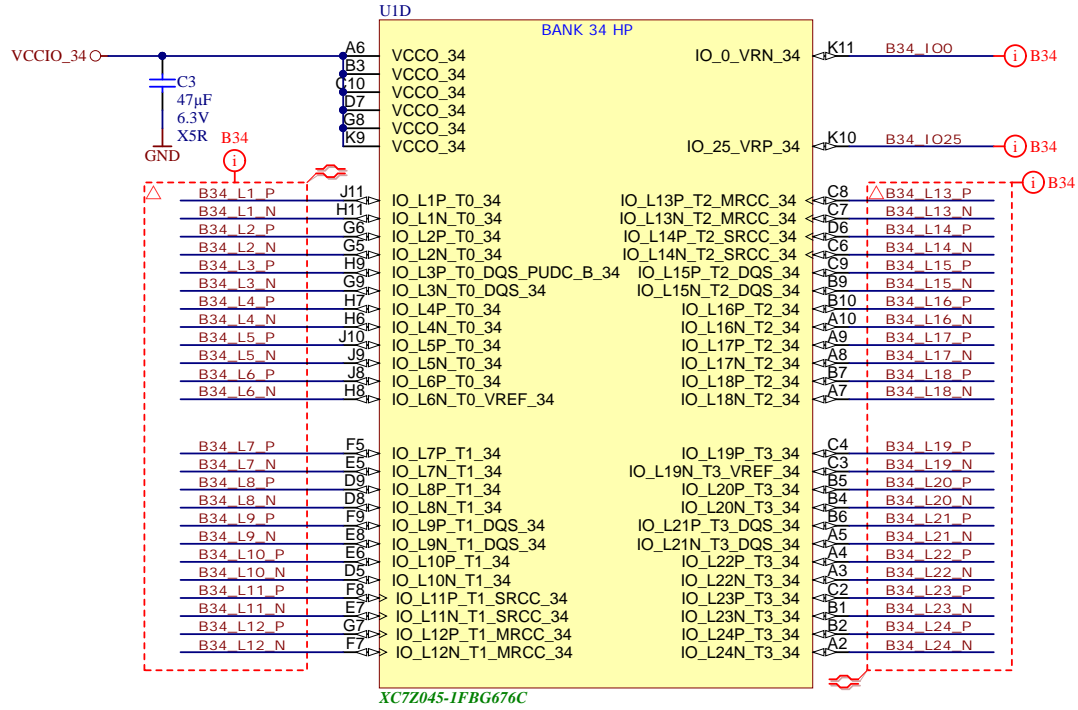
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A4	Number: 7 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 7 of 25
Filename: ZYNQ_MISC.SchDoc		



Title: TE0745 - Zynq_B13		
A4	Number: 9 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page9 of 25
Filename: B13.SchDoc		



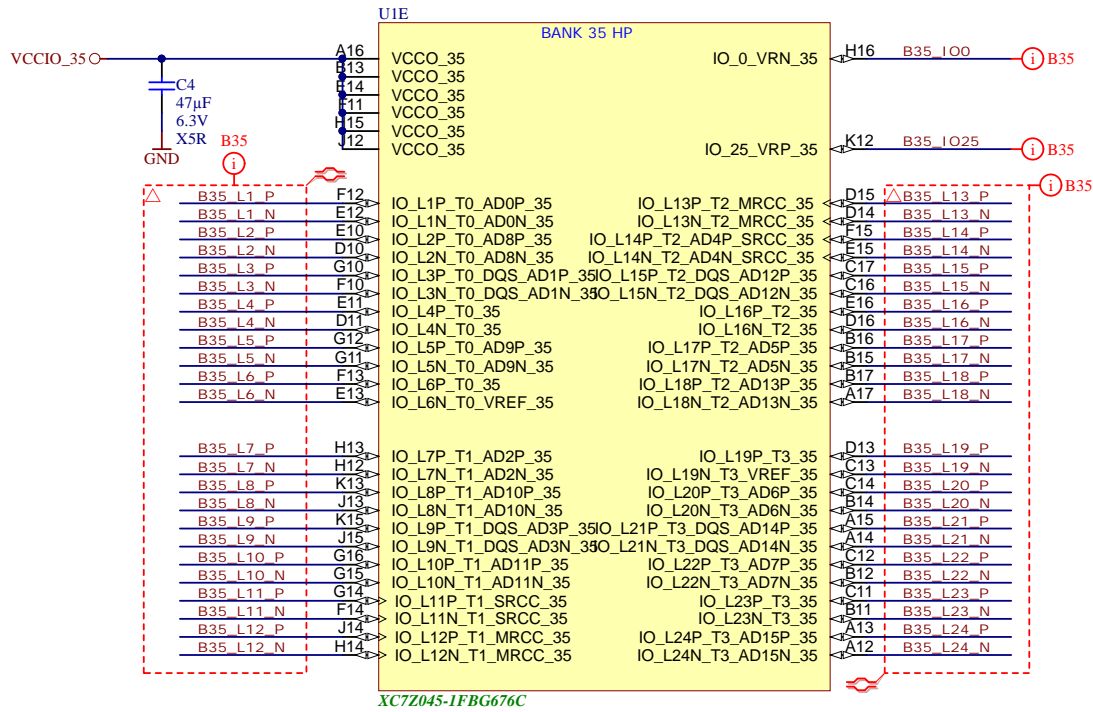
Title: TE0745 - Zynq_B33		
A4	Number: 10 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page10 of 25
Filename: B33.SchDoc		



XC7Z045-1FBG676C



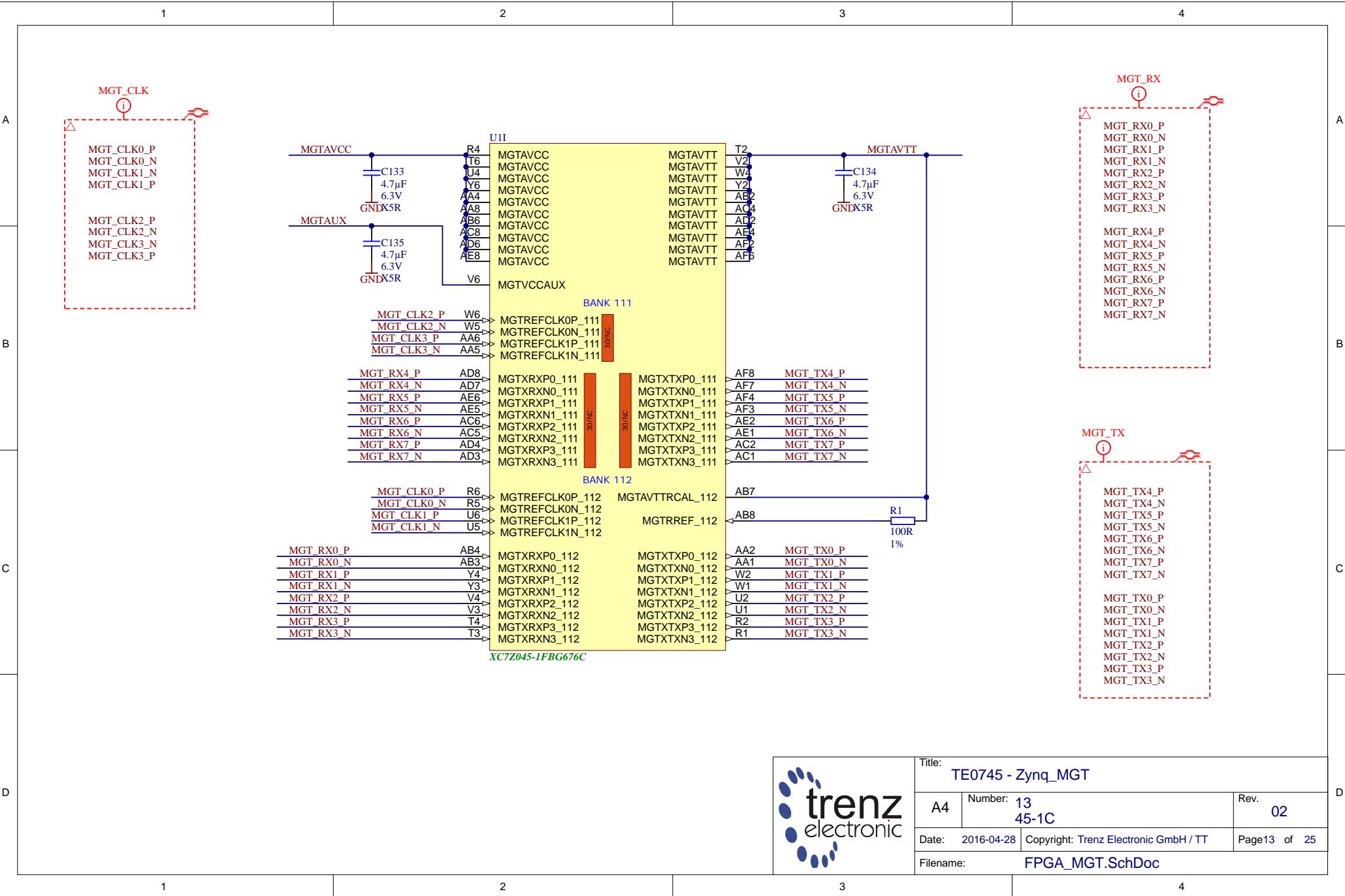
Title: TE0745 - Zynq_B34		
A4	Number: 11 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 11 of 25
Filename: B34.SchDoc		



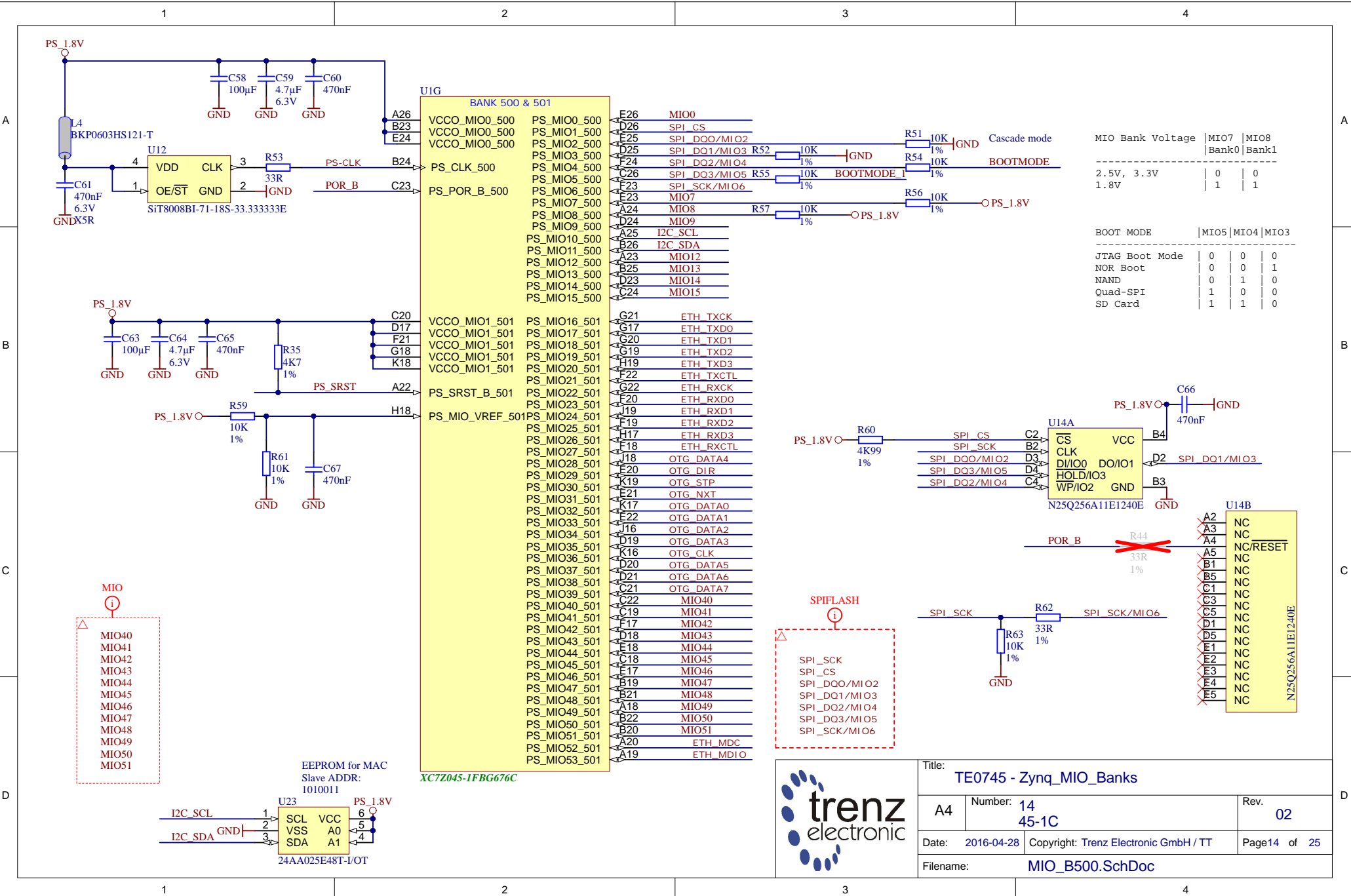
XC7Z045-1FBG676C



Title: TE0745 - Zynq_B35		
A4	Number: 12 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 12 of 25
Filename: B35.SchDoc		



	Title: TE0745 - Zynq_MGT		
	A4	Number: 13 45-1C	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page13 of 25
	Filename: FPGA_MGT.SchDoc		



U1G BANK 500 & 501

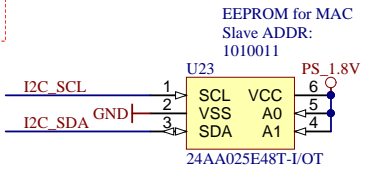
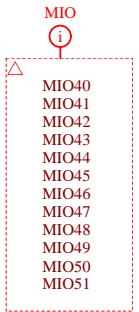
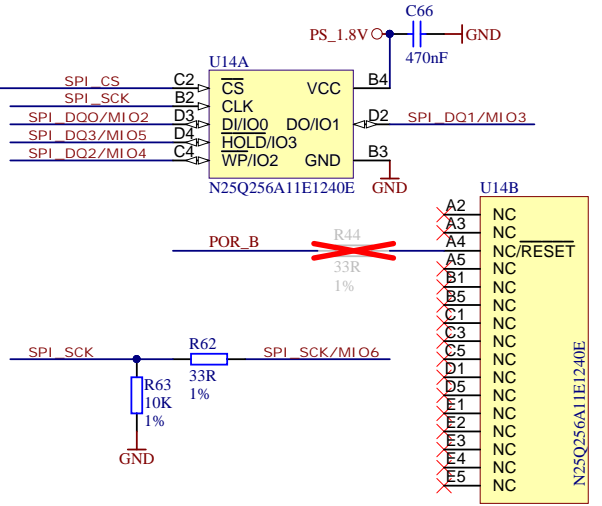
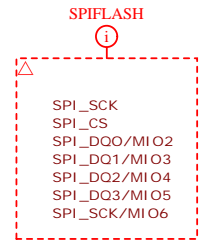
VCCO_MIO0_500	PS_MIO0_500	E26	MIO0
VCCO_MIO0_500	PS_MIO1_500	D26	SPI_CS
VCCO_MIO0_500	PS_MIO2_500	E25	SPI_DQ0/MIO2
PS_MIO3_500	PS_MIO3_500	D25	SPI_DQ1/MIO3
PS_MIO4_500	PS_MIO4_500	F24	SPI_DQ2/MIO4
PS_MIO5_500	PS_MIO5_500	C26	SPI_DQ3/MIO5
PS_MIO6_500	PS_MIO6_500	F23	SPI_SCK/MIO6
PS_MIO7_500	PS_MIO7_500	E23	MIO7
PS_MIO8_500	PS_MIO8_500	A24	MIO8
PS_MIO9_500	PS_MIO9_500	D24	MIO9
PS_MIO10_500	PS_MIO10_500	A25	I2C_SCL
PS_MIO11_500	PS_MIO11_500	B26	I2C_SDA
PS_MIO12_500	PS_MIO12_500	A23	MIO12
PS_MIO13_500	PS_MIO13_500	B25	MIO13
PS_MIO14_500	PS_MIO14_500	D23	MIO14
PS_MIO15_500	PS_MIO15_500	C24	MIO15
VCCO_MIO16_501	PS_MIO16_501	G21	ETH_TXCK
VCCO_MIO17_501	PS_MIO17_501	G17	ETH_TXD0
VCCO_MIO18_501	PS_MIO18_501	G20	ETH_TXD1
VCCO_MIO19_501	PS_MIO19_501	G19	ETH_TXD2
VCCO_MIO20_501	PS_MIO20_501	H19	ETH_TXD3
PS_MIO21_501	PS_MIO21_501	F22	ETH_TXCTL
PS_MIO22_501	PS_MIO22_501	G22	ETH_RXCK
PS_MIO23_501	PS_MIO23_501	E20	ETH_RXD0
PS_MIO24_501	PS_MIO24_501	H19	ETH_RXD1
PS_MIO25_501	PS_MIO25_501	F19	ETH_RXD2
PS_MIO26_501	PS_MIO26_501	H17	ETH_RXD3
PS_MIO27_501	PS_MIO27_501	F18	ETH_RXCTL
PS_MIO28_501	PS_MIO28_501	J18	OTG_DATA4
PS_MIO29_501	PS_MIO29_501	E20	OTG_DIR
PS_MIO30_501	PS_MIO30_501	K19	OTG_STP
PS_MIO31_501	PS_MIO31_501	E21	OTG_NXT
PS_MIO32_501	PS_MIO32_501	K17	OTG_DATA0
PS_MIO33_501	PS_MIO33_501	E22	OTG_DATA1
PS_MIO34_501	PS_MIO34_501	J16	OTG_DATA2
PS_MIO35_501	PS_MIO35_501	D19	OTG_DATA3
PS_MIO36_501	PS_MIO36_501	K16	OTG_CLK
PS_MIO37_501	PS_MIO37_501	D20	OTG_DATA5
PS_MIO38_501	PS_MIO38_501	D21	OTG_DATA6
PS_MIO39_501	PS_MIO39_501	C21	OTG_DATA7
PS_MIO40_501	PS_MIO40_501	C22	MIO40
PS_MIO41_501	PS_MIO41_501	C19	MIO41
PS_MIO42_501	PS_MIO42_501	F17	MIO42
PS_MIO43_501	PS_MIO43_501	D18	MIO43
PS_MIO44_501	PS_MIO44_501	E18	MIO44
PS_MIO45_501	PS_MIO45_501	C18	MIO45
PS_MIO46_501	PS_MIO46_501	E17	MIO46
PS_MIO47_501	PS_MIO47_501	B19	MIO47
PS_MIO48_501	PS_MIO48_501	B21	MIO48
PS_MIO49_501	PS_MIO49_501	A18	MIO49
PS_MIO50_501	PS_MIO50_501	B22	MIO50
PS_MIO51_501	PS_MIO51_501	B20	MIO51
PS_MIO52_501	PS_MIO52_501	A20	ETH_MDC
PS_MIO53_501	PS_MIO53_501	A19	ETH_MDIO

MIO Bank Voltage

MIO7	MIO8	
Bank0	Bank1	
2.5V, 3.3V	0	0
1.8V	1	1

BOOT MODE

MIO5	MIO4	MIO3	
JTAG Boot Mode	0	0	0
NOR Boot	0	0	1
NAND	0	1	0
Quad-SPI	1	0	0
SD Card	1	1	0



Title: TE0745 - Zynq_MIO_Banks			
A4	Number: 14	Rev. 02	
	45-1C		
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 14 of 25	
Filename: MIO_B500.SchDoc			

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A

A

B

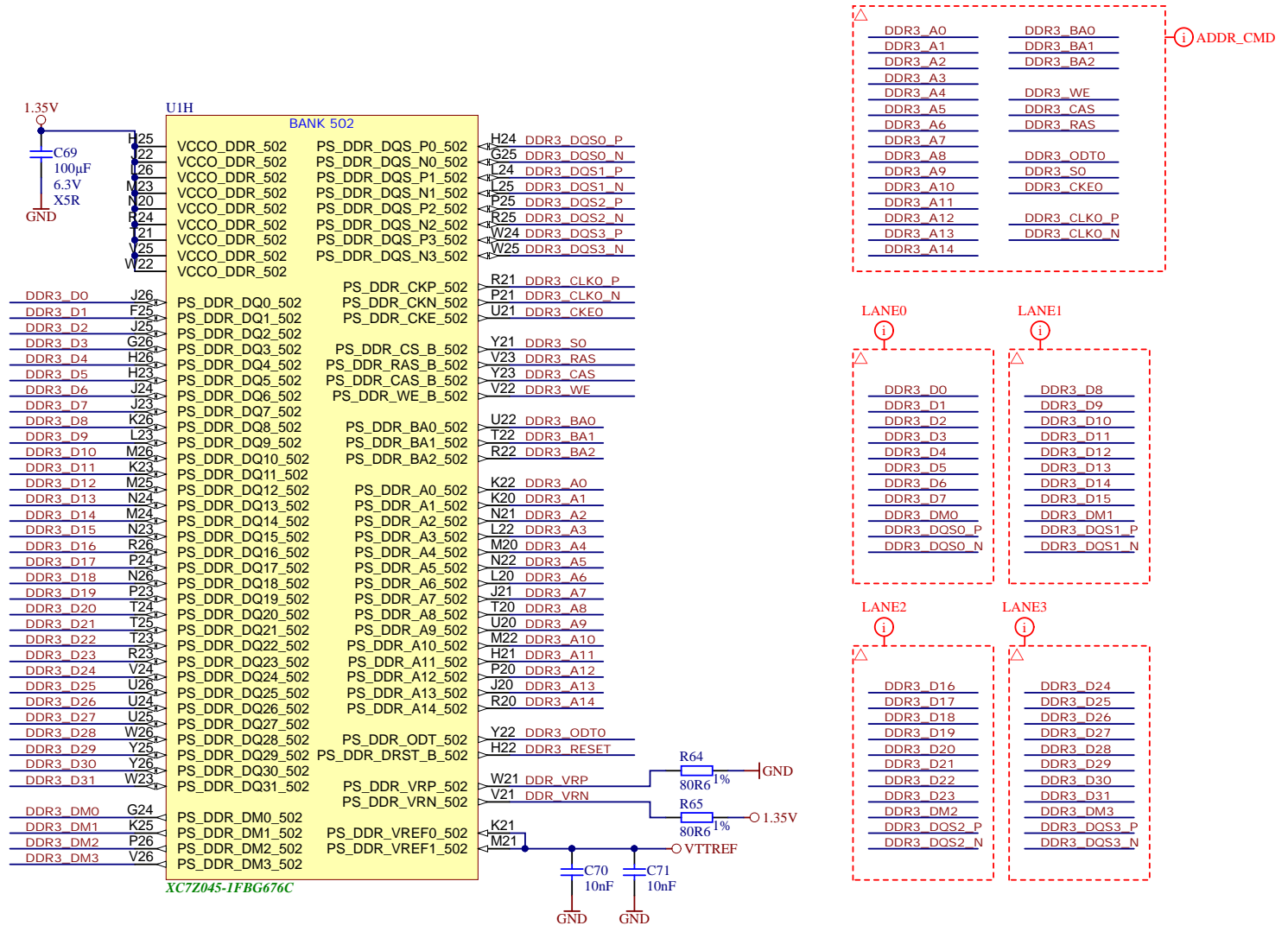
B

C

C

D

D



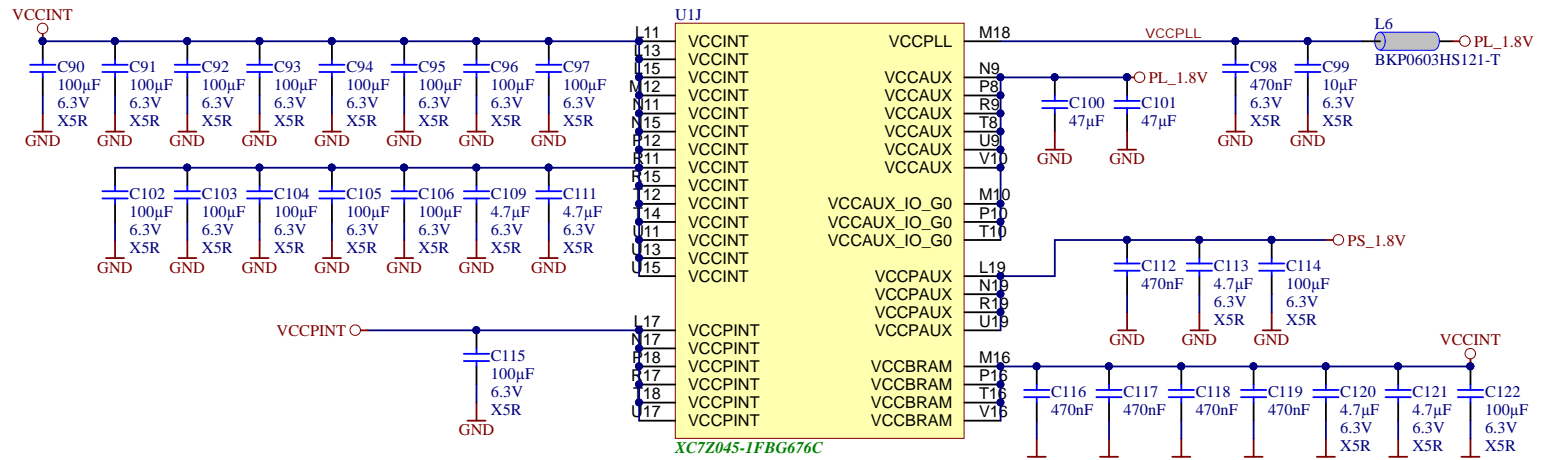
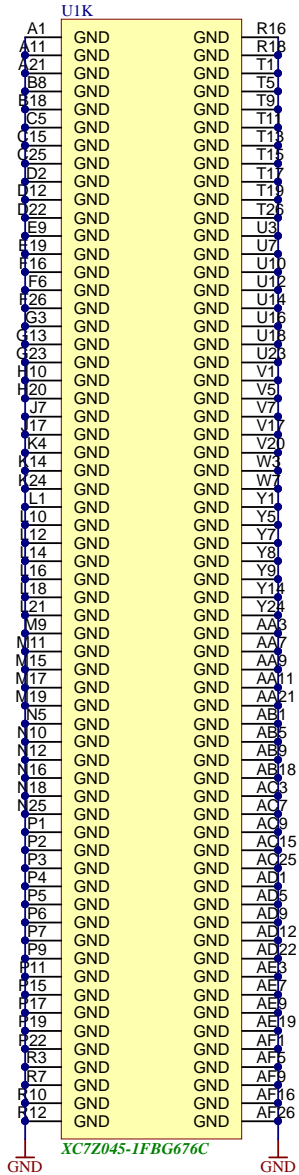
Title: TE0745 - Zynq_PS_DDR		
A4	Number: 15 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 15 of 25
Filename: PS-DDR.SchDoc		

1

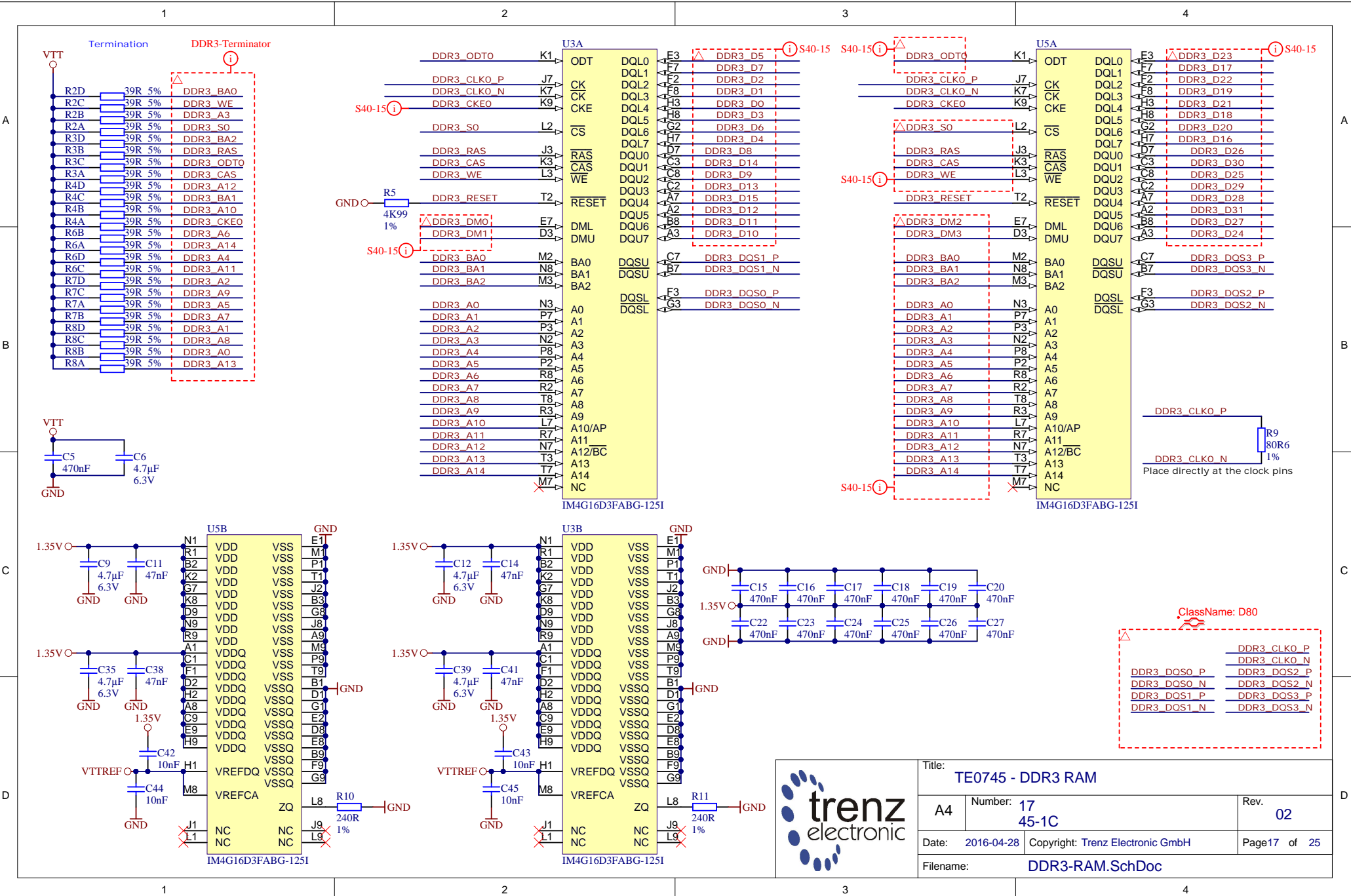
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Title: TE0745 - Zynq_Power		
A4	Number: 16 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 16 of 25
Filename: ZYNC_POWER.SchDoc		



Title: TE0745 - DDR3 RAM		
A4	Number: 17 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH	Page 17 of 25
Filename: DDR3-RAM.SchDoc		

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A

A

B

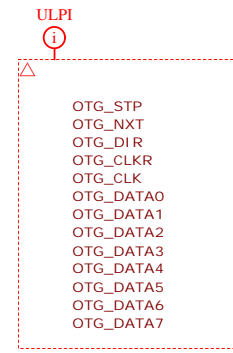
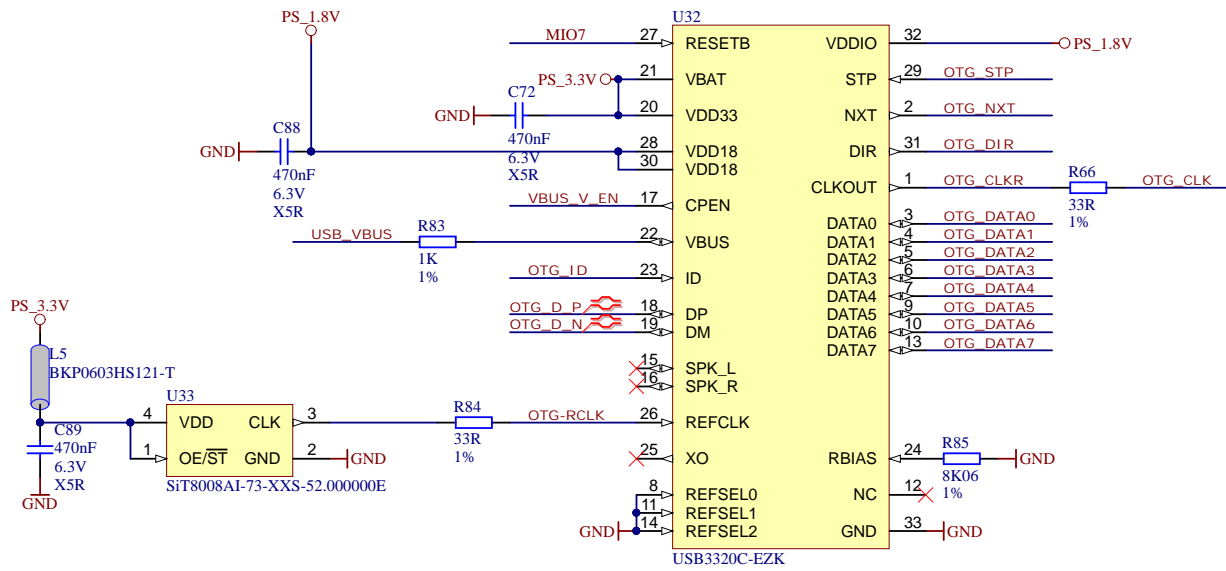
B

C

C

D

D



		Title: TE0745 - USB_PHY	
		A4	Number: 18 45-1C
Date: 2016-04-28		Copyright: Trenz Electronic GmbH / TT	
Filename: USB-PHY.SchDoc		Page 18 of 25	

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A

A

B

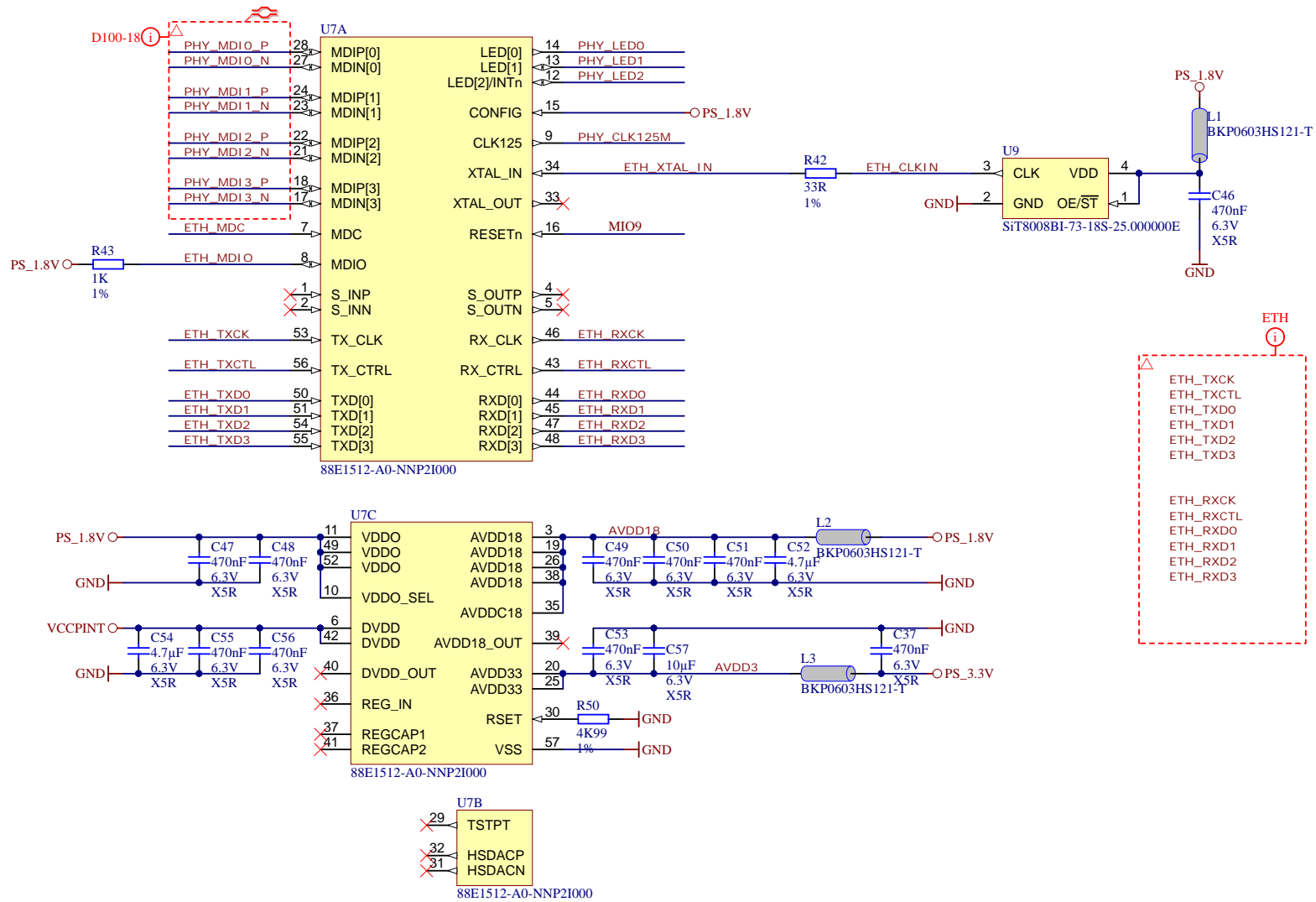
B

C

C

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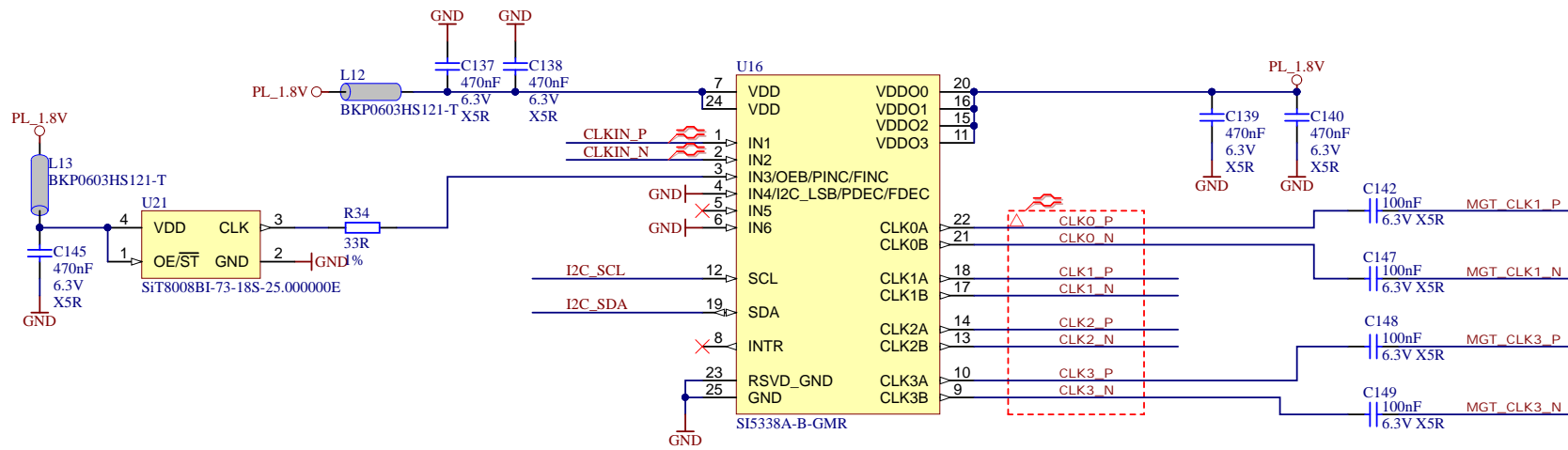
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	A4	Number: 19 45-1C	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 19 of 25
	Filename: ETH-PHY.SchDoc		

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Slave ADDR:
1110000 OR 1110001



Title: TE0745 - CLK		
A4	Number: 20 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page20 of 25
Filename: CLK.SchDoc		

1

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A

A

B

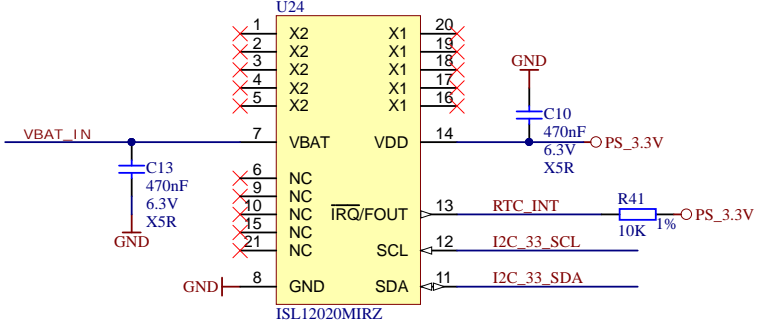
B

C

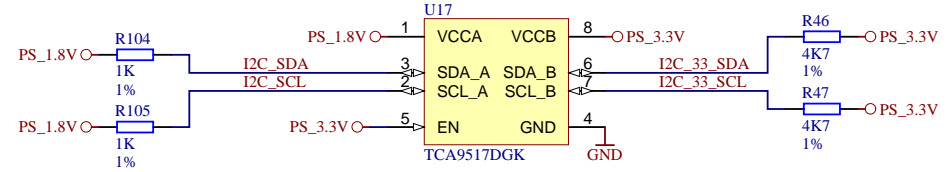
C

D

D



Slave ADDR:
 for RTC registers: 1101111
 for User SRAM: 1010111



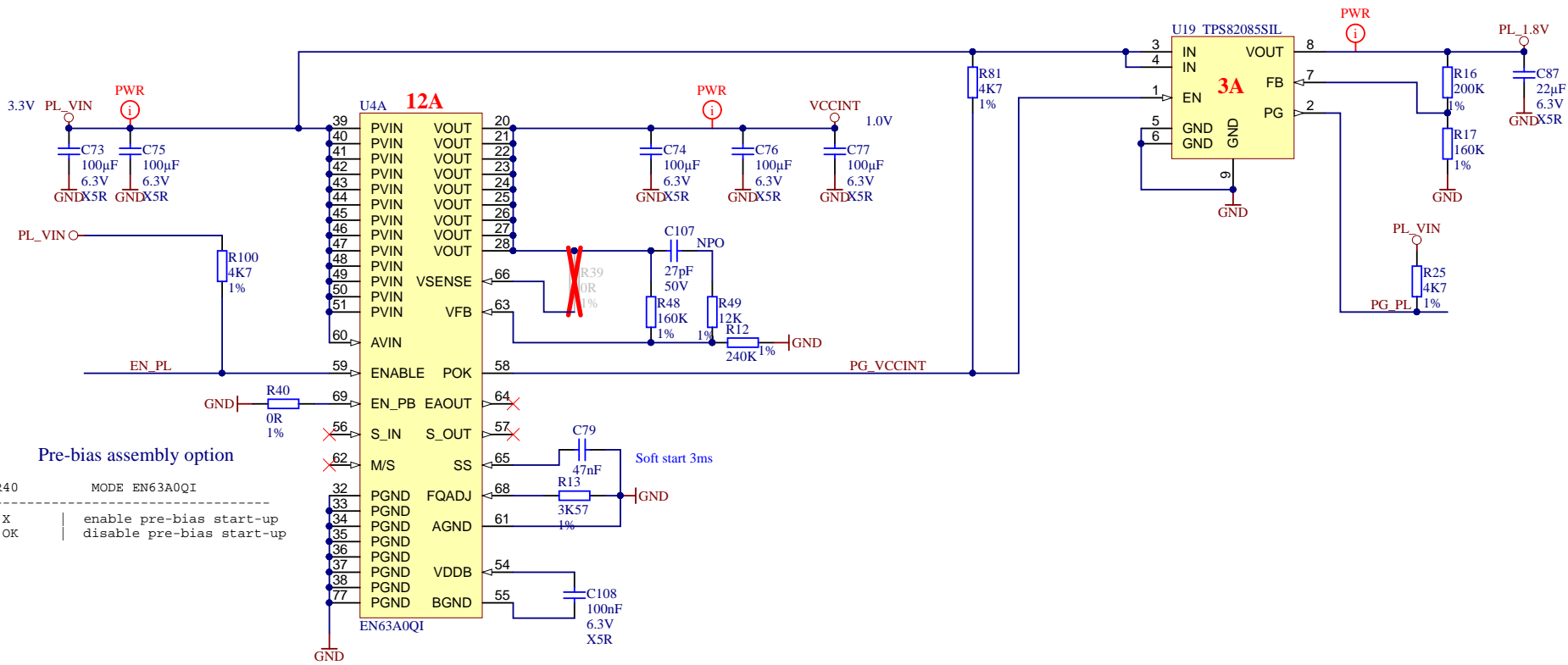
Title: TE0745 - RTC		
A4	Number: 21 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page21 of 25
Filename: SENSOR-RTC.SchDoc		

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Pre-bias assembly option

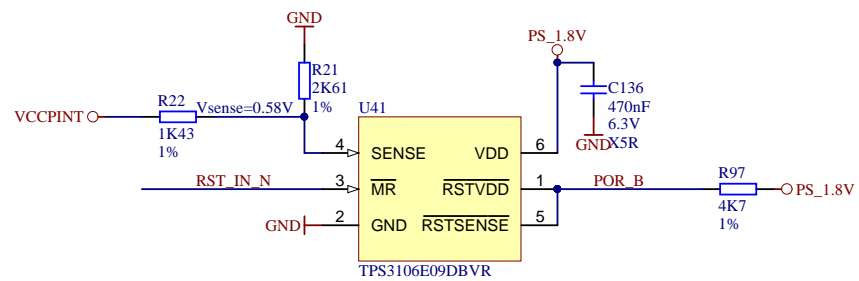
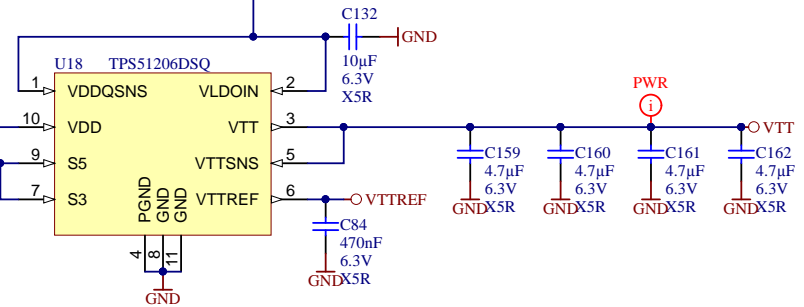
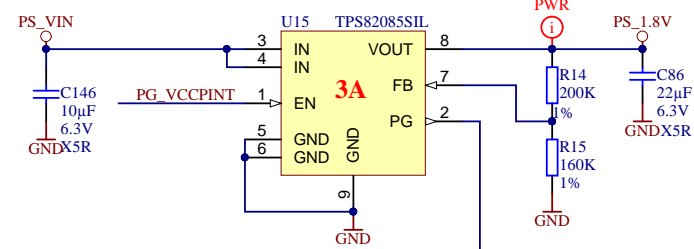
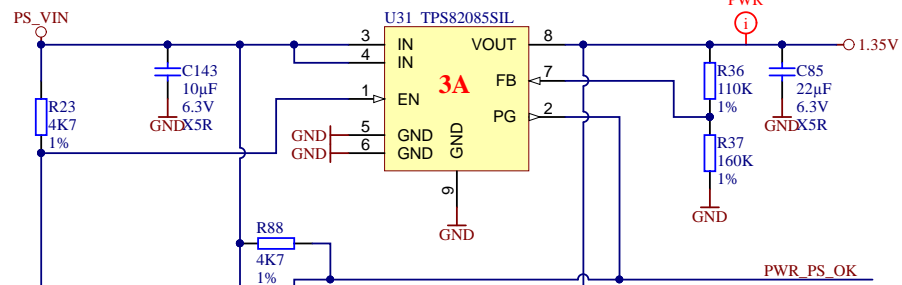
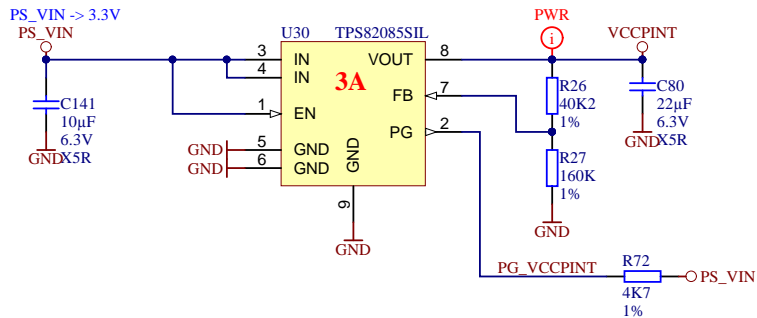
R39 R40 MODE EN63A0QI

 OK X enable pre-bias start-up
 X OK disable pre-bias start-up

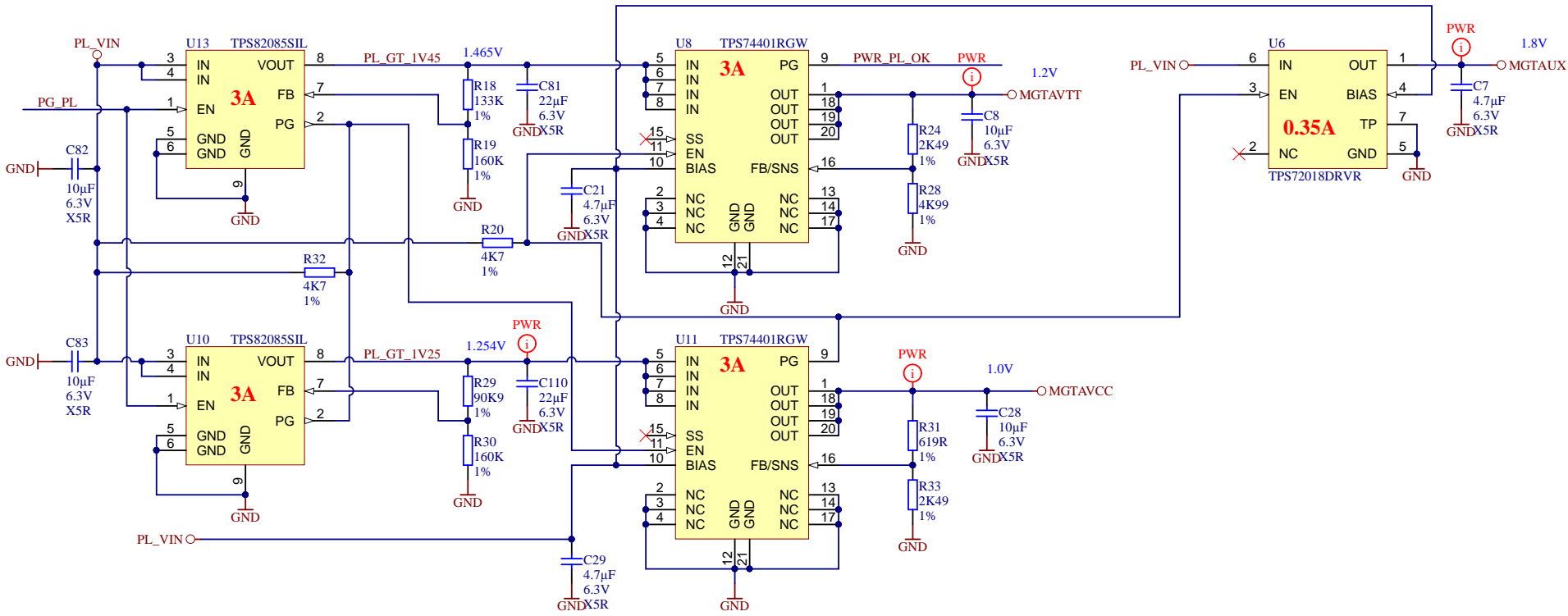
U4B			
1	NC	NC	17
2	NC	NC	18
3	NC	NC	19
4	NC	NC	29
5	NC	NC	30
6	NC	NC(SW)	31
7	NC	NC(SW)	52
8	NC	NC	53
9	NC	NC	67
10	NC	NC(SW)	70
11	NC	NC(SW)	71
12	NC	NC(SW)	72
13	NC	NC	73
14	NC	NC	74
15	NC	NC	75
16	NC	NC	76


EN63A0QI

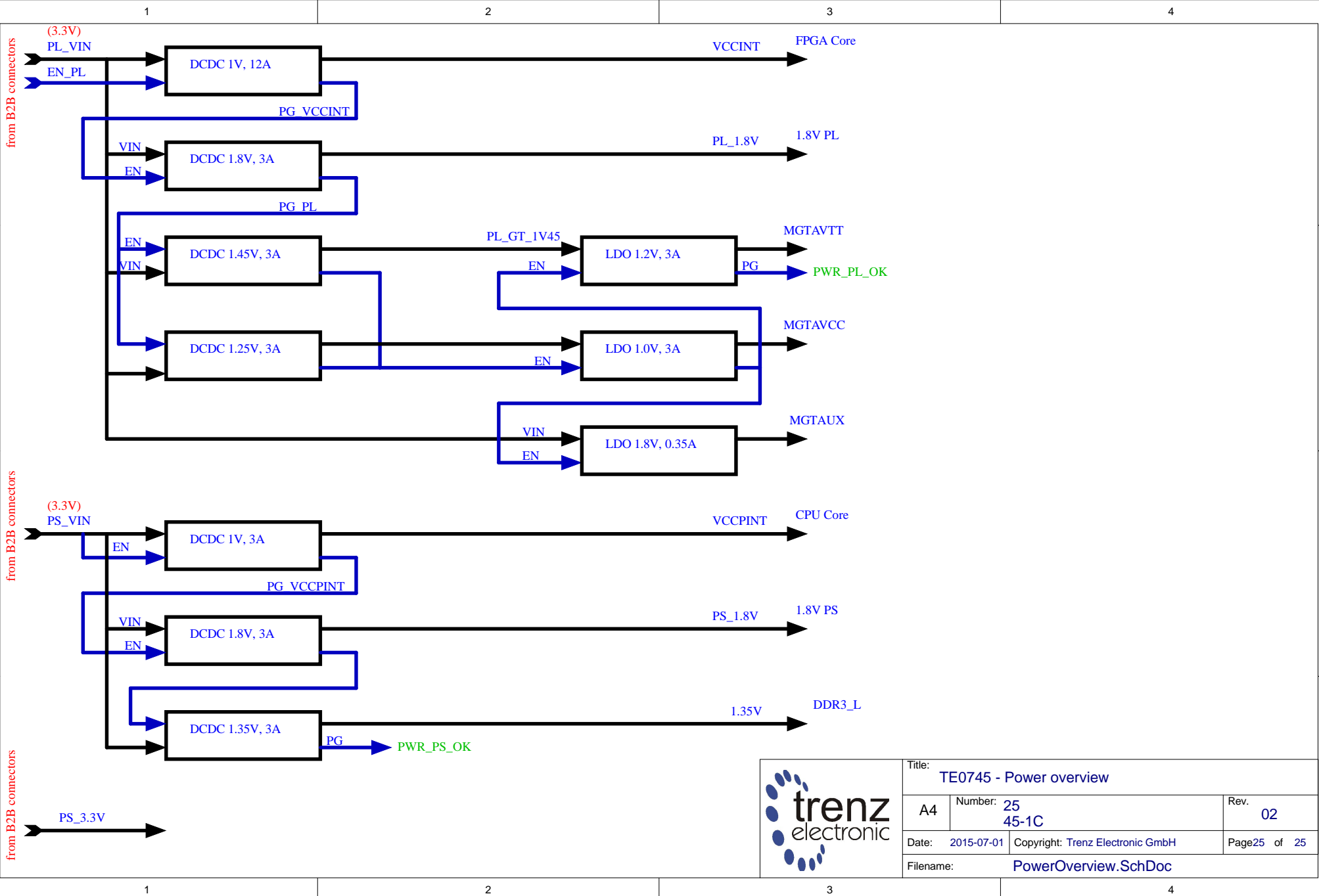
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	A4	Number: 22 45-1C	Rev. 02
	Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page22 of 25
	Filename: POWER.SchDoc		



Title: TE0745 - Power2		
A4	Number: 23 45-1C	Rev. 02
Date: 2016-04-28	Copyright: Trenz Electronic GmbH / TT	Page 23 of 25
Filename: POWER_2.SchDoc		



	Title: TE0745 - Power3		
	A4	Number: 24 45-1C	Rev. 02
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