U_A-Headers
A-Headers.SchDoc

U_Analog
Analog.SchDoc

U_DDR3-RAM
DDR3-RAM.SchDoc

U_USB-PHY
USB-PHY.SchDoc

U_PowerSupply
PowerSupply.SchDoc

U_FTDI
FTDI.SchDoc

Mount.Hole 3.2mm (unplated)

Mount.Hole 3.2mm (unplated)

Mount.Hole 3.2mm (unplated)

Mount.Hole 3.2mm (unplated)

U_FPGA_B34
FPGA_B34.SchDoc

U_FPGA_B35
FPGA_B35.SchDoc

U_FPGA_MIO
FPGA_MIO.SchDoc

U_FPGA_RAM
FPGA_RAM.SchDoc

U_FPGA_PWR
FPGA_PWR.SchDoc

PM1
FIDU-DOT - small

PM2
FIDU-DOT - small

PM3
FIDU-DOT - small

PM4
FIDU-DOT - small

PM5
FIDU-DOT - small

PM6
FIDU-DOT - small

LOGO1

TE Logo PRINT Layer

LOGO PRINT

Serial

Serial

Serialnumber 6,3 x 6.3mm

S/N

1 0R 2

Serialnumber

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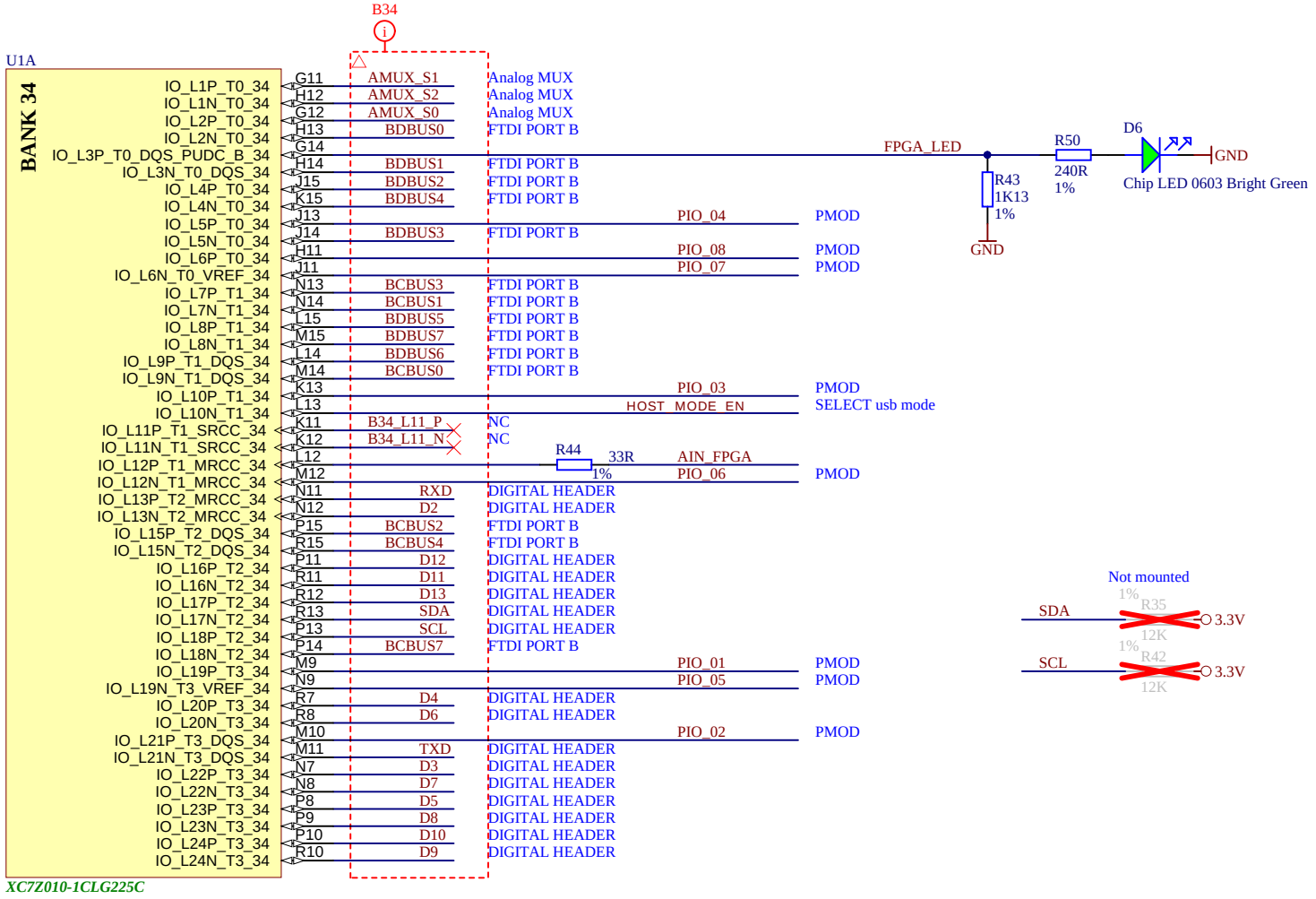
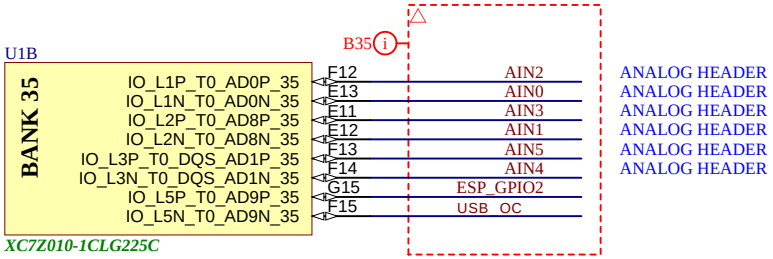
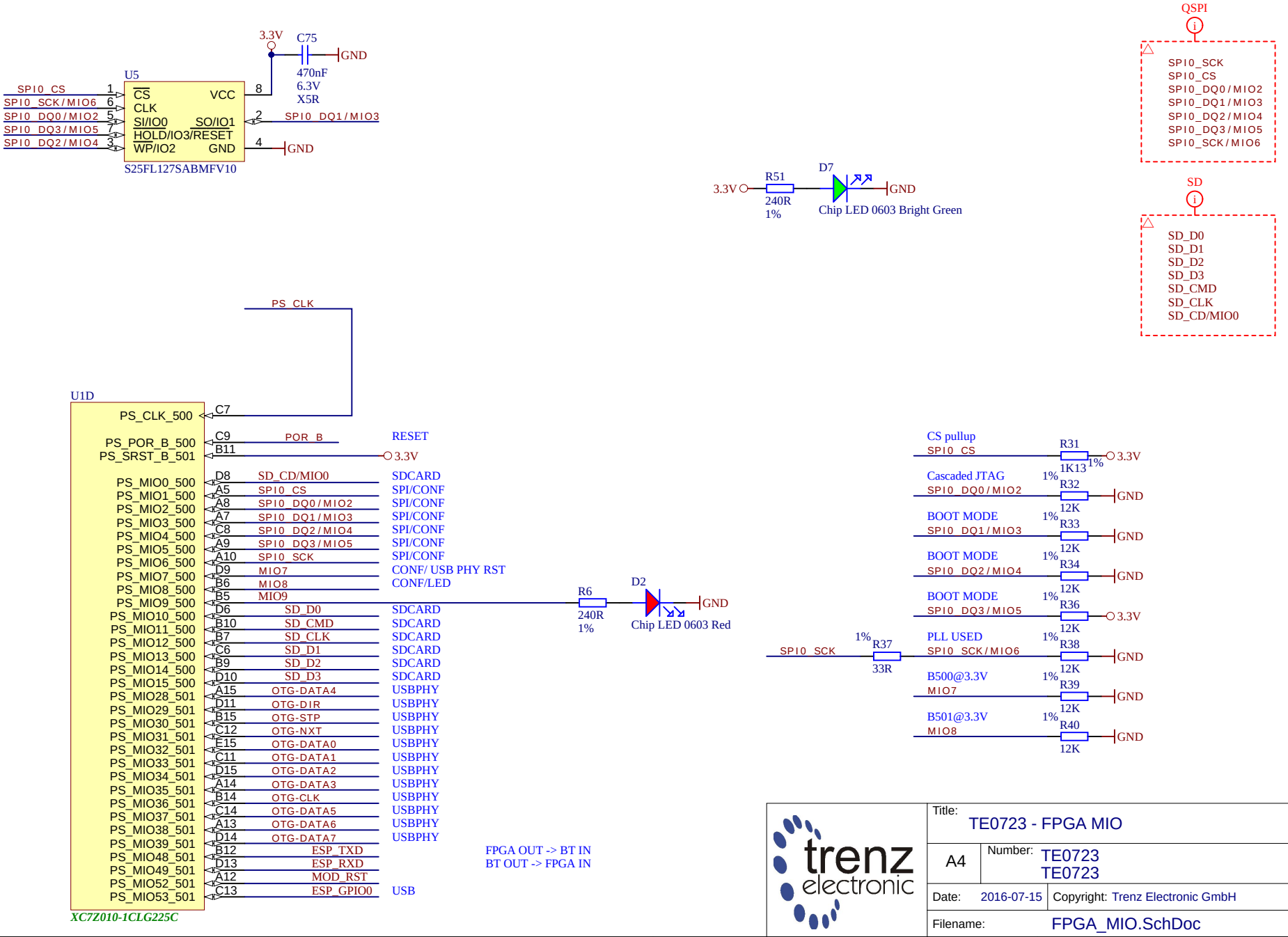
Title: TE0723			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page1 of 13
Filename: TE0723.SchDoc			



Title: TE0723 - FPGA B34			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page2 of 13
Filename: FPGA_B34.SchDoc			



trenz electronic	Title: TE0723 - FPGA B35		
	A4	Number: TE0723 TE0723	Rev. 03
	Date: 2016-07-15	Copyright: Trenz Electronic GmbH	Page3 of 13
	Filename: FPGA_B35.SchDoc		


U5
SPI0_CS
SPI0_SCK/MIO6
SPI0_DQ0/MIO2
SPI0_DQ3/MIO5
SPI0_DQ2/MIO4
CS
CLK
SI/IO0
HOLD/IO3/RESET
WP/IO2
VCC
SO/IO1
GND
SPI0_DQ1/MIO3
S25FL127SABMFV10
3.3V
C75
470nF
6.3V
X5R
GND
QSPI
SPI0_SCK
SPI0_CS
SPI0_DQ0/MIO2
SPI0_DQ1/MIO3
SPI0_DQ2/MIO4
SPI0_DQ3/MIO5
SPI0_SCK/MIO6
SD
SD_D0
SD_D1
SD_D2
SD_D3
SD_CMD
SD_CLK
SD_CD/MIO0
R51
240R
1%
D7
Chip LED 0603 Bright Green
PS_CLK
U1D
PS_CLK_500
C7
PS_POR_B_500
PS_SRST_B_501
C9
B11
POR_B
RESET
3.3V
PS_MIO0_500
PS_MIO1_500
PS_MIO2_500
PS_MIO3_500
PS_MIO4_500
PS_MIO5_500
PS_MIO6_500
PS_MIO7_500
PS_MIO8_500
PS_MIO9_500
PS_MIO10_500
PS_MIO11_500
PS_MIO12_500
PS_MIO13_500
PS_MIO14_500
PS_MIO15_500
PS_MIO28_501
PS_MIO29_501
PS_MIO30_501
PS_MIO31_501
PS_MIO32_501
PS_MIO33_501
PS_MIO34_501
PS_MIO35_501
PS_MIO36_501
PS_MIO37_501
PS_MIO38_501
PS_MIO39_501
PS_MIO48_501
PS_MIO49_501
PS_MIO52_501
PS_MIO53_501
D8 SD_CD/MIO0 SDCARD
A5 SPI0_CS SPI/CONF
A8 SPI0_DQ0/MIO2 SPI/CONF
A7 SPI0_DQ1/MIO3 SPI/CONF
C8 SPI0_DQ2/MIO4 SPI/CONF
A9 SPI0_DQ3/MIO5 SPI/CONF
A10 SPI0_SCK SPI/CONF
D9 MIO7 CONF/ USB PHY RST
B6 MIO8 CONF/LED
B5 MIO9
D6 SD_D0 SDCARD
B10 SD_CMD SDCARD
B7 SD_CLK SDCARD
C6 SD_D1 SDCARD
B9 SD_D2 SDCARD
D10 SD_D3 SDCARD
A15 OTG-DATA4 USBPHY
D11 OTG-DIR USBPHY
B15 OTG-STP USBPHY
C12 OTG-NXT USBPHY
E15 OTG-DATA0 USBPHY
C11 OTG-DATA1 USBPHY
D15 OTG-DATA2 USBPHY
A14 OTG-DATA3 USBPHY
B14 OTG-CLK USBPHY
C14 OTG-DATA5 USBPHY
A13 OTG-DATA6 USBPHY
D14 OTG-DATA7 USBPHY
B12 ESP_TXD
D13 ESP_RXD
A12 MOD_RST
C13 ESP_GPIO0 USB
FPGA OUT -> BT IN
BT OUT -> FPGA IN
XC7Z010-1CLG225C
R6
240R
1%
D2
Chip LED 0603 Red
GND
CS pullup
SPI0_CS
R31
1K13
1%
3.3V
Cascaded JTAG
SPI0_DQ0/MIO2
R32
12K
BOOT MODE
SPI0_DQ1/MIO3
R33
BOOT MODE
SPI0_DQ2/MIO4
R34
BOOT MODE
SPI0_DQ3/MIO5
R36
PLL USED
SPI0_SCK/MIO6
R38
B500@3.3V
MIO7
R39
B501@3.3V
MIO8
R40
SPI0_SCK
R37
33R
Title: TE0723 - FPGA MIO
A4
Number: TE0723
TE0723
Rev. 03
Date: 2016-07-15
Copyright: Trenz Electronic GmbH
Page4 of 13
Filename: FPGA_MIO.SchDoc
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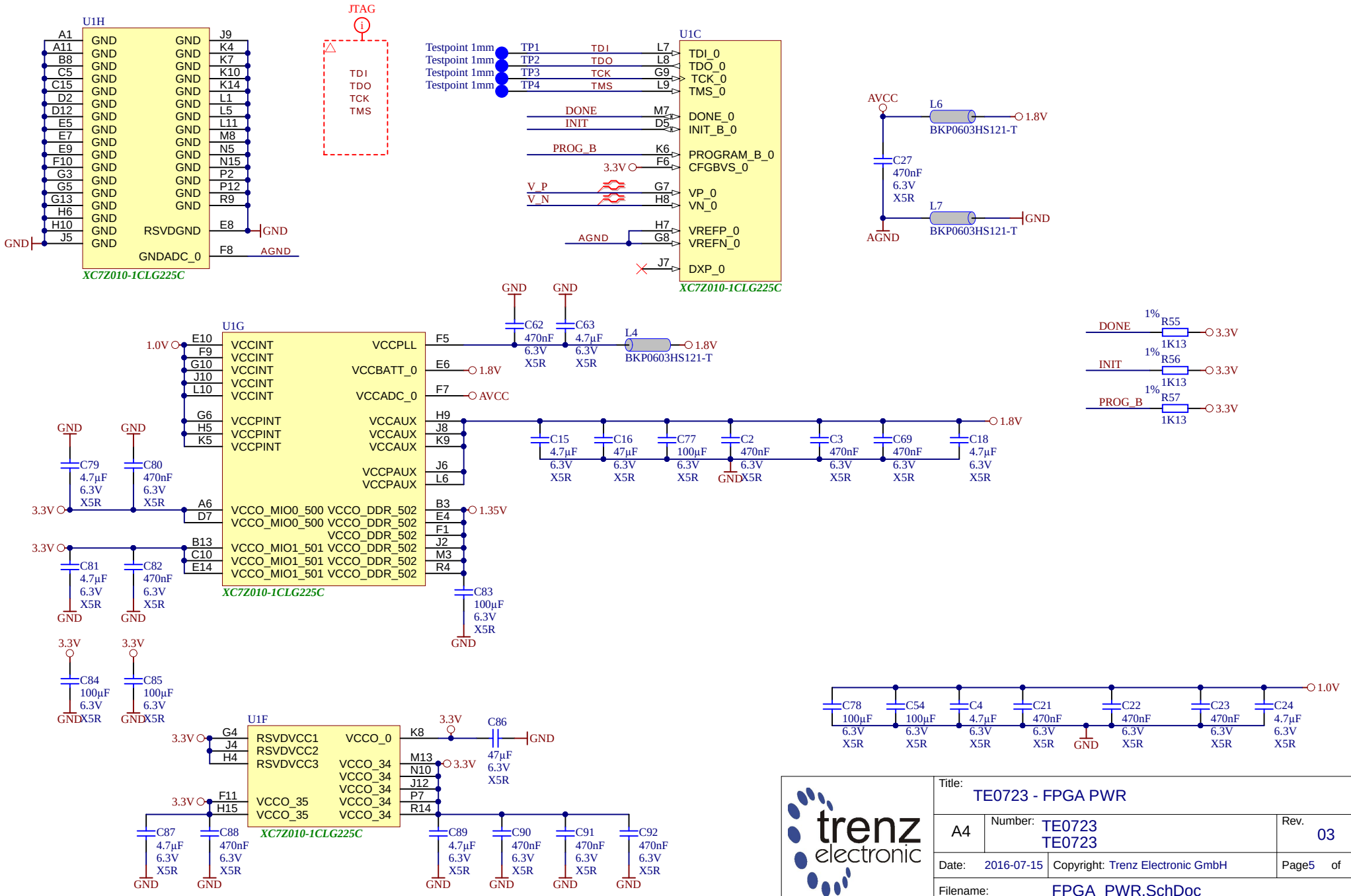
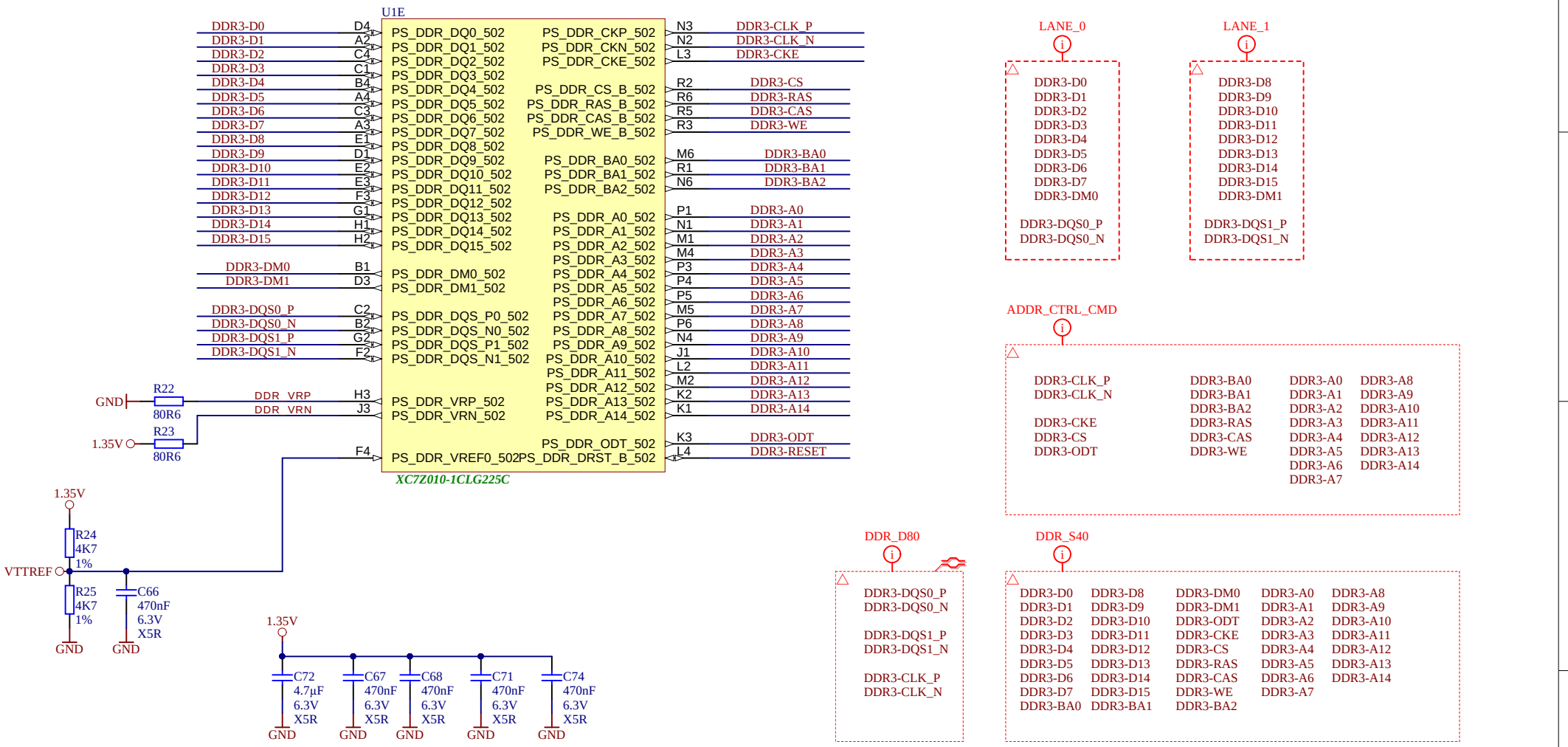
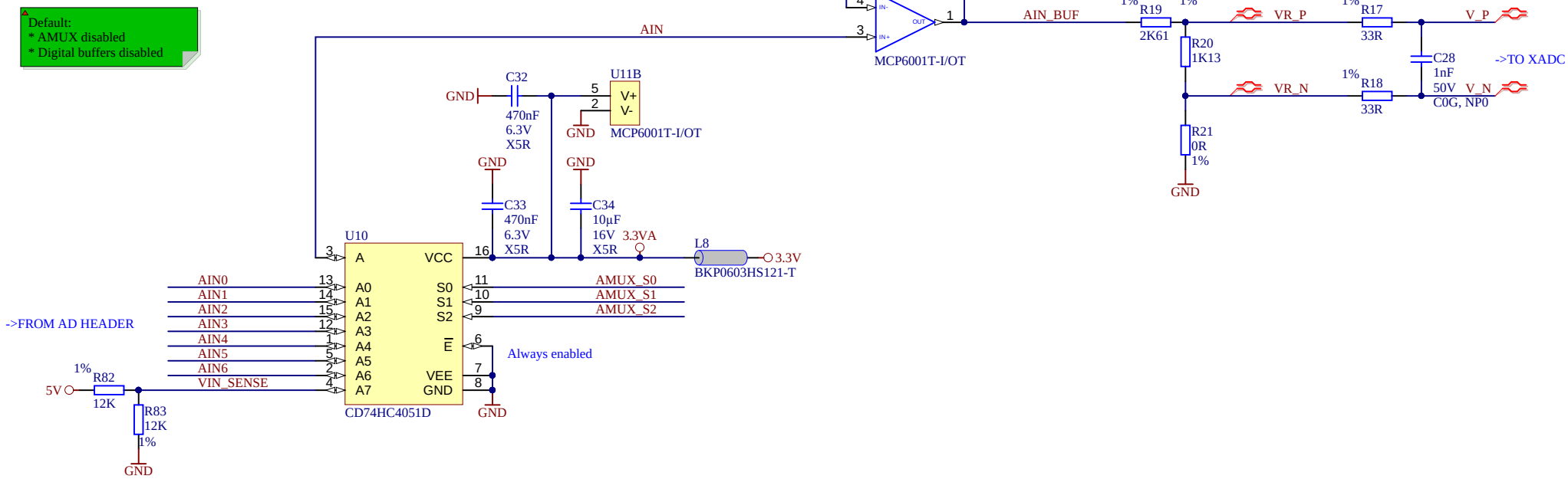
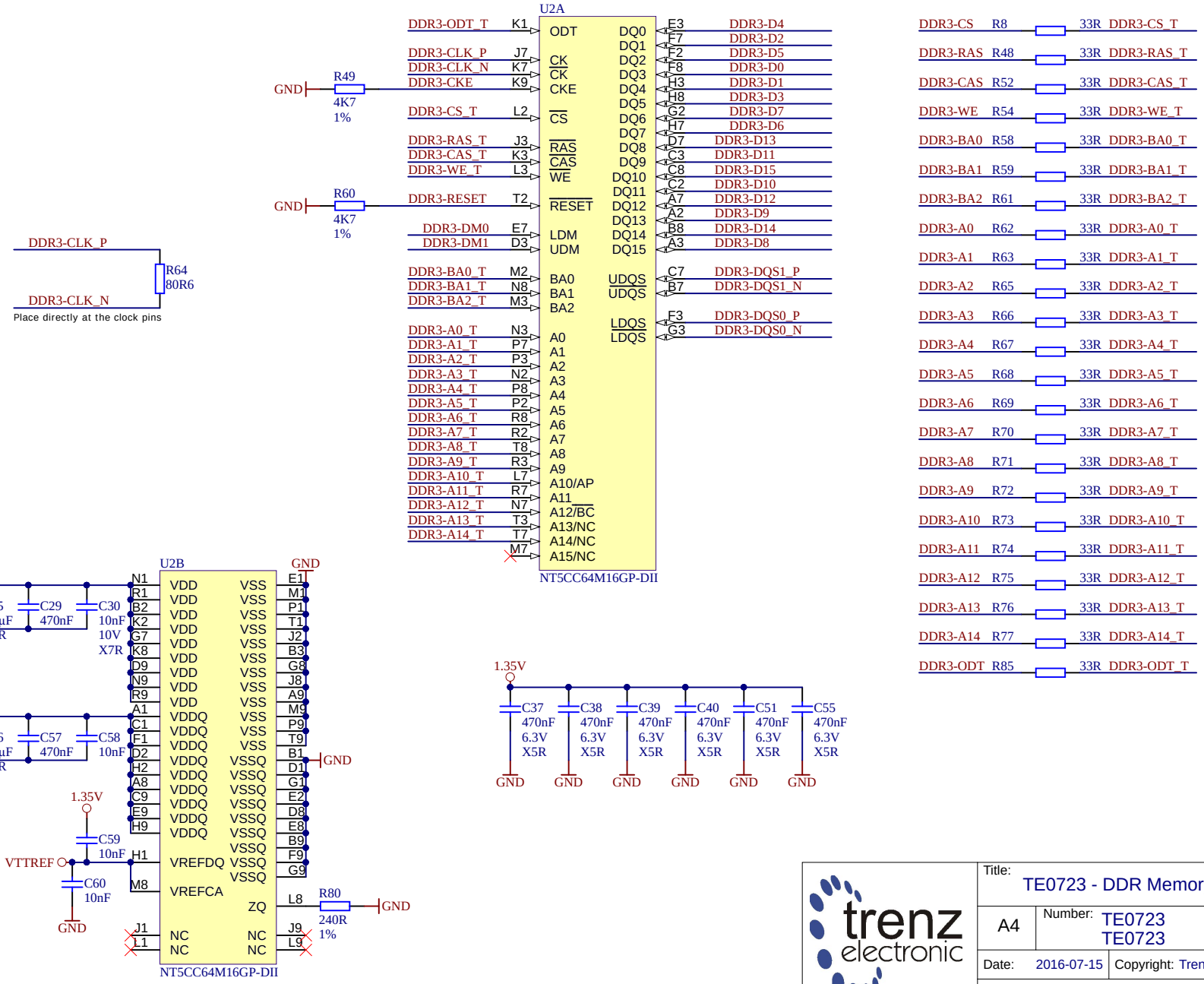

U1H
XC7Z010-1CLG225C
JTAG
TDI
TDO
TCK
TMS
U1C
XC7Z010-1CLG225C
Testpoint 1mm
TP1
TP2
TP3
TP4
DONE
INIT
PROG_B
V_P
V_N
AGND
AVCC
L6
BKP0603HS121-T
1.8V
C27
470nF
6.3V
X5R
L7
GND
U1G
XC7Z010-1CLG225C
VCCINT
VCCPLL
VCCBATT_0
VCCADC_0
VCCPINT
VCCAUX
VCCPAUX
VCCO_MIO0_500
VCCO_MIO1_501
VCCO_DDR_502
1.0V
3.3V
1.35V
C62
C63
L4
C15
C16
C77
C2
C3
C69
C18
C79
C80
C81
C82
C83
100µF
C84
C85
U1F
RSVDVCC1
RSVDVCC2
RSVDVCC3
VCCO_0
VCCO_34
VCCO_35
C86
47µF
C87
C88
C89
C90
C91
C92
R55
R56
R57
1K13
1%
C78
C54
C4
C21
C22
C23
C24
Title:
TE0723 - FPGA PWR
A4
Number:
TE0723
TE0723
Rev.
03
Date:
2016-07-15
Copyright: Trenz Electronic GmbH
Page5 of 13
Filename:
FPGA_PWR.SchDoc
trenz electronic



Title: TE0723 - FPGA RAM			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page6 of 13
Filename: FPGA_RAM.SchDoc			



Title: TE0723 - Analog Input			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page7 of 13
Filename: Analog.SchDoc			



trenz electronic	Title: TE0723 - DDR Memory		
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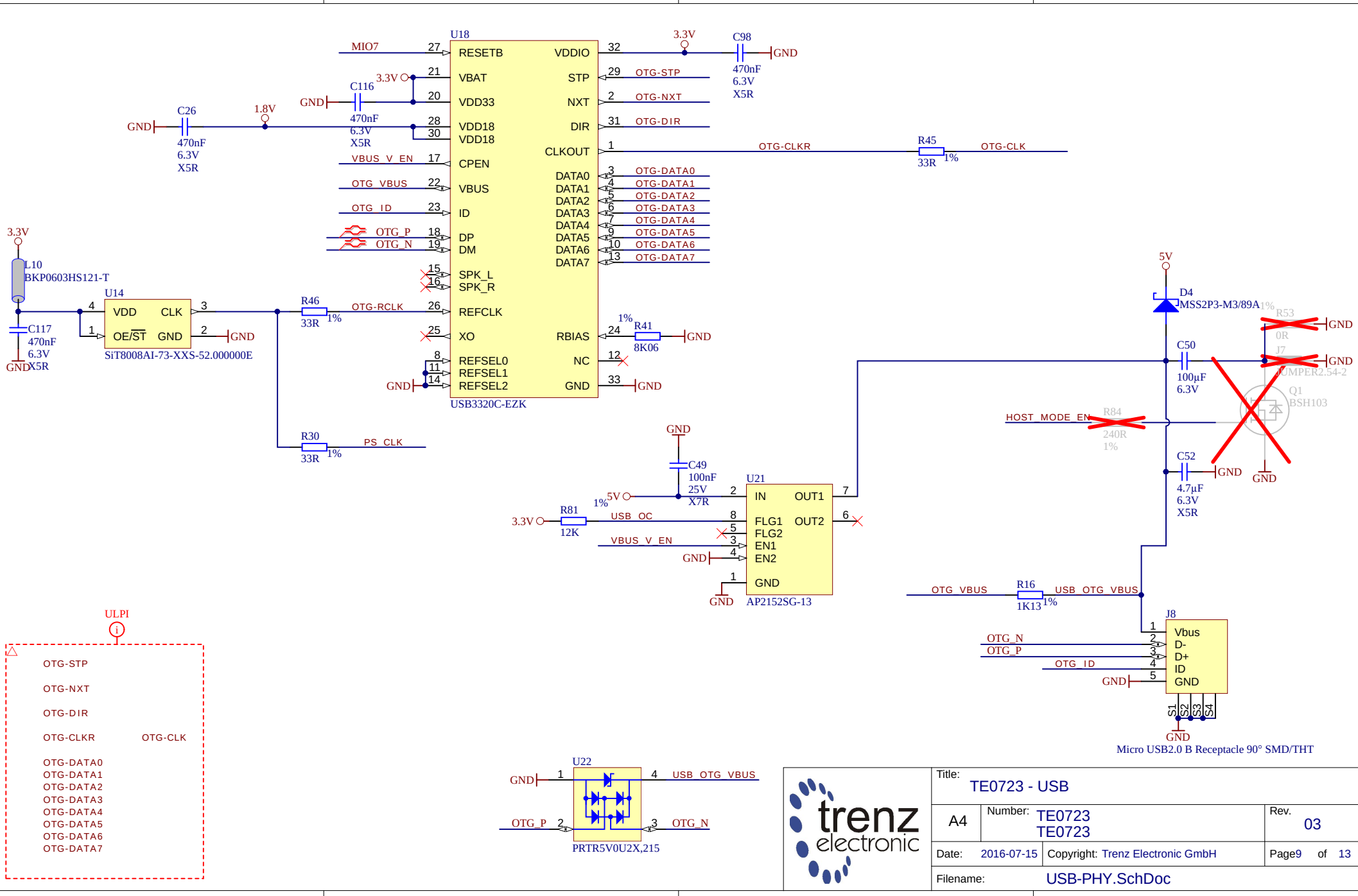
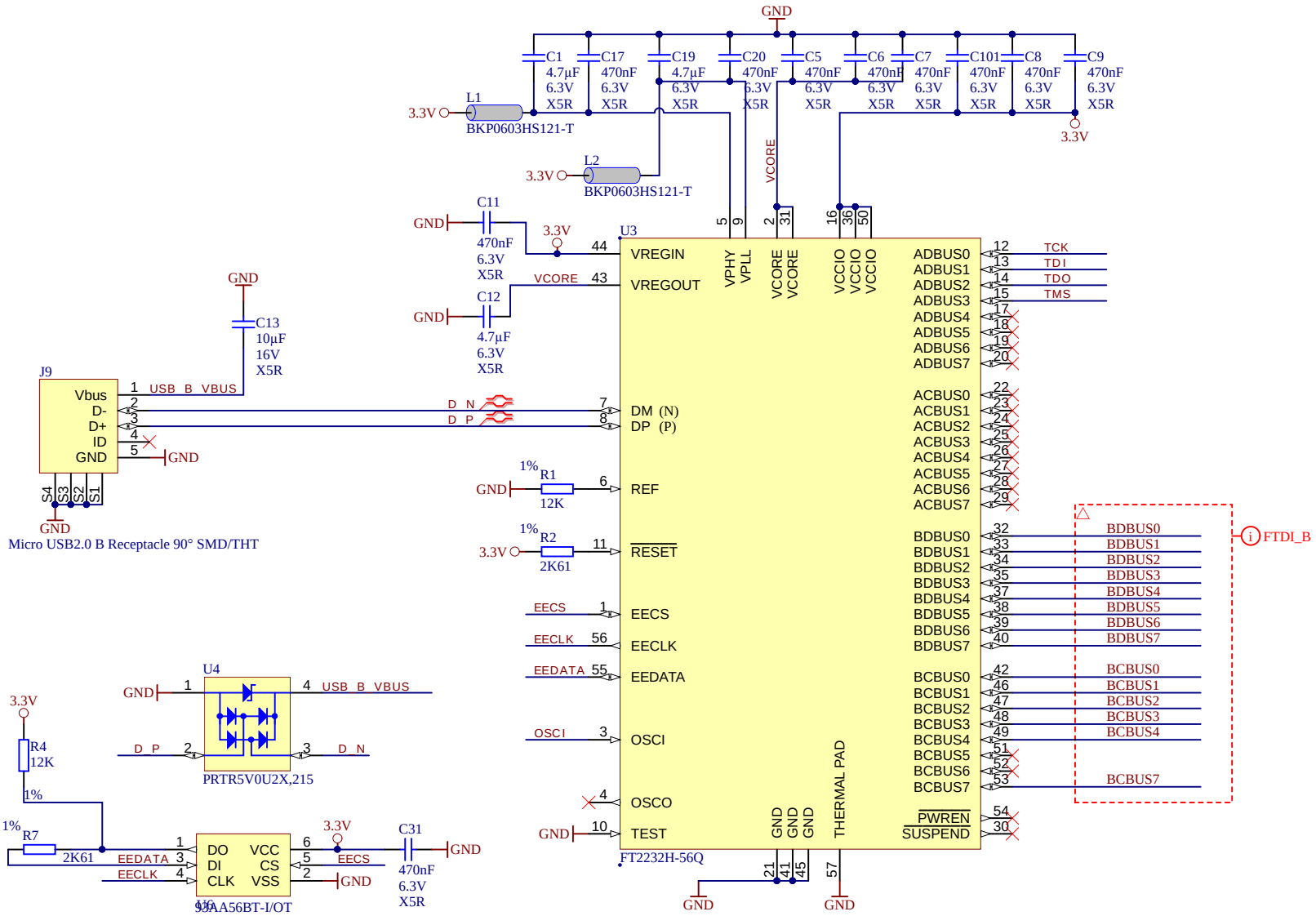
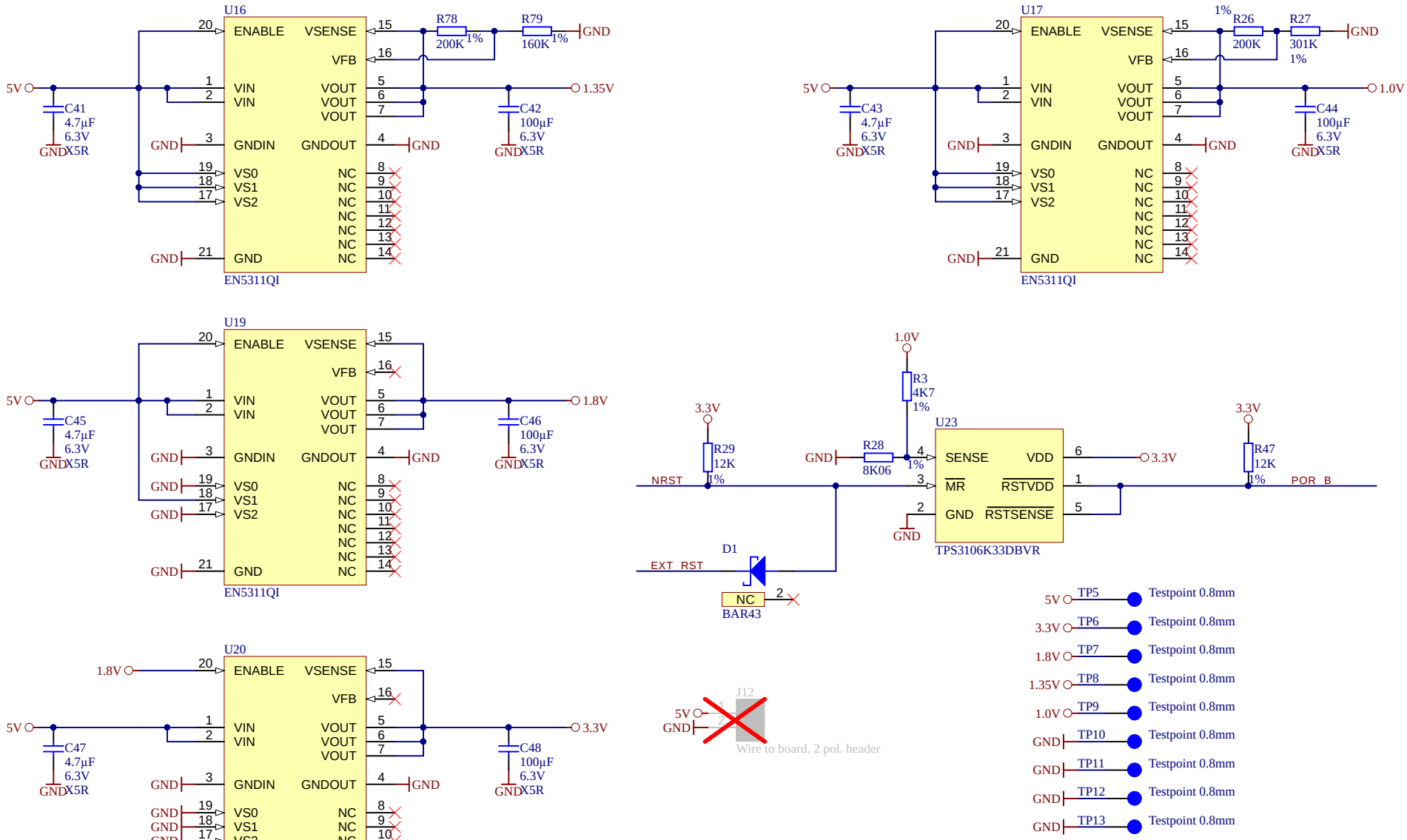
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page8 of 13
Filename: DDR3-RAM.SchDoc			



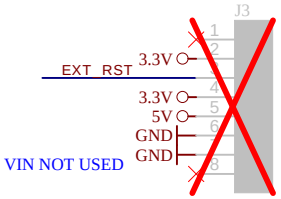
Title: TE0723 - USB			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page9 of 13
Filename: USB-PHY.SchDoc			



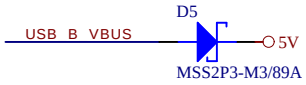
trenz electronic	Title: TE0723 - FTDI		
	A4	Number: TE0723 TE0723	Rev. 03
	Date: 2016-07-15	Copyright: Trenz Electronic GmbH	Page10 of 13
	Filename: FTDI.SchDoc		

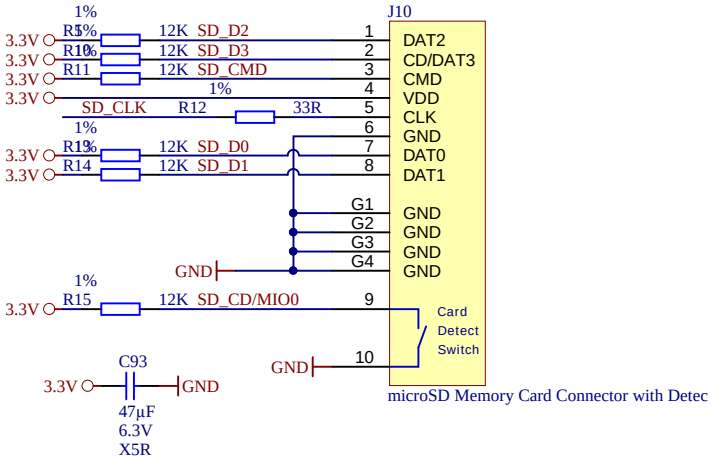


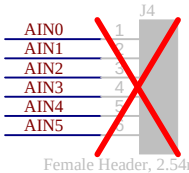
Title: TE0723 - PowerSupply			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page11 of 13
Filename: PowerSupply.SchDoc			



Female Header, 2.54mm, 1row, 8pol.







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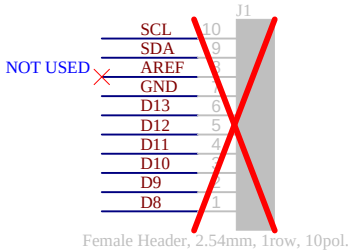

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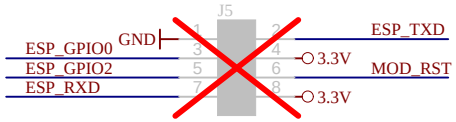

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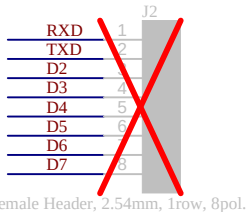

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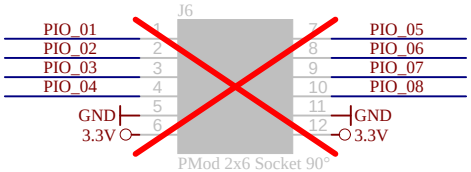
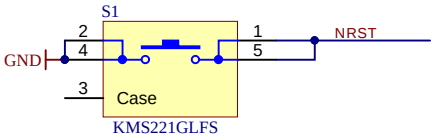


PMod 2x6 Socket 90°

JUMPER2.54-3



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Title: TE0723 - Connectors			
A4	Number: TE0723 TE0723		Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH		Page12 of 13
Filename: A-Headers.SchDoc			

CHANGES REV02 to REV03

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1) changed FTDI-chip on 56pins package
2) changed micro-USB connectors
3) optimized BOM
4) update footprints, full update lib
5) added serial number (tracebility pad)

Title: TE0723 - Changes list		
A4	Number: TE0723 TE0723	Rev. 03
Date: 2016-07-15	Copyright: Trenz Electronic GmbH	Page 13 of 13
Filename: Revision_Changes.SchDoc		