U_B2B-Connectors
B2B-Connectors.SchDoc

U_B13
B13.SchDoc

U_B14
B14.SchDoc

U_B15
B15.SchDoc

U_B16
B16.SchDoc

U_B34
B34.SchDoc

U_FPGA-MGT
FPGA-MGT.SchDoc

U_FPGA-CFG
FPGA-CFG.SchDoc

U_FPGA-PWR
FPGA-PWR.SchDoc

U_Clock
Clock.SchDoc

U_DDR3-RAM
DDR3-RAM.SchDoc

U_ETHERNET
ETHERNET.SchDoc

U_CPLD
CPLD.SchDoc

U_PWR1
PWR1.SchDoc

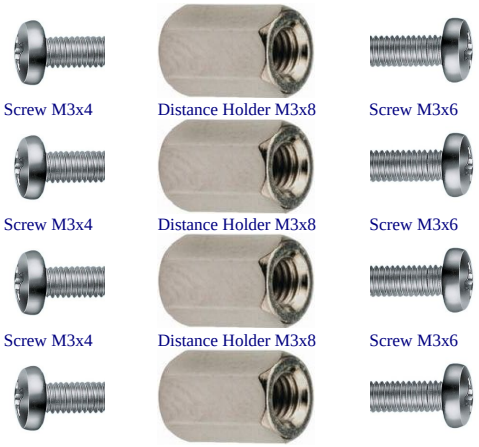
U_PWR2
PWR2.SchDoc

Serial
Serial
Serialnumber 6,3 x 6.3mm

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 Mount.Hole 3.2mm
GND GND
Mount.Hole 3.2mm Mount.Hole 3.2mm
GND GND

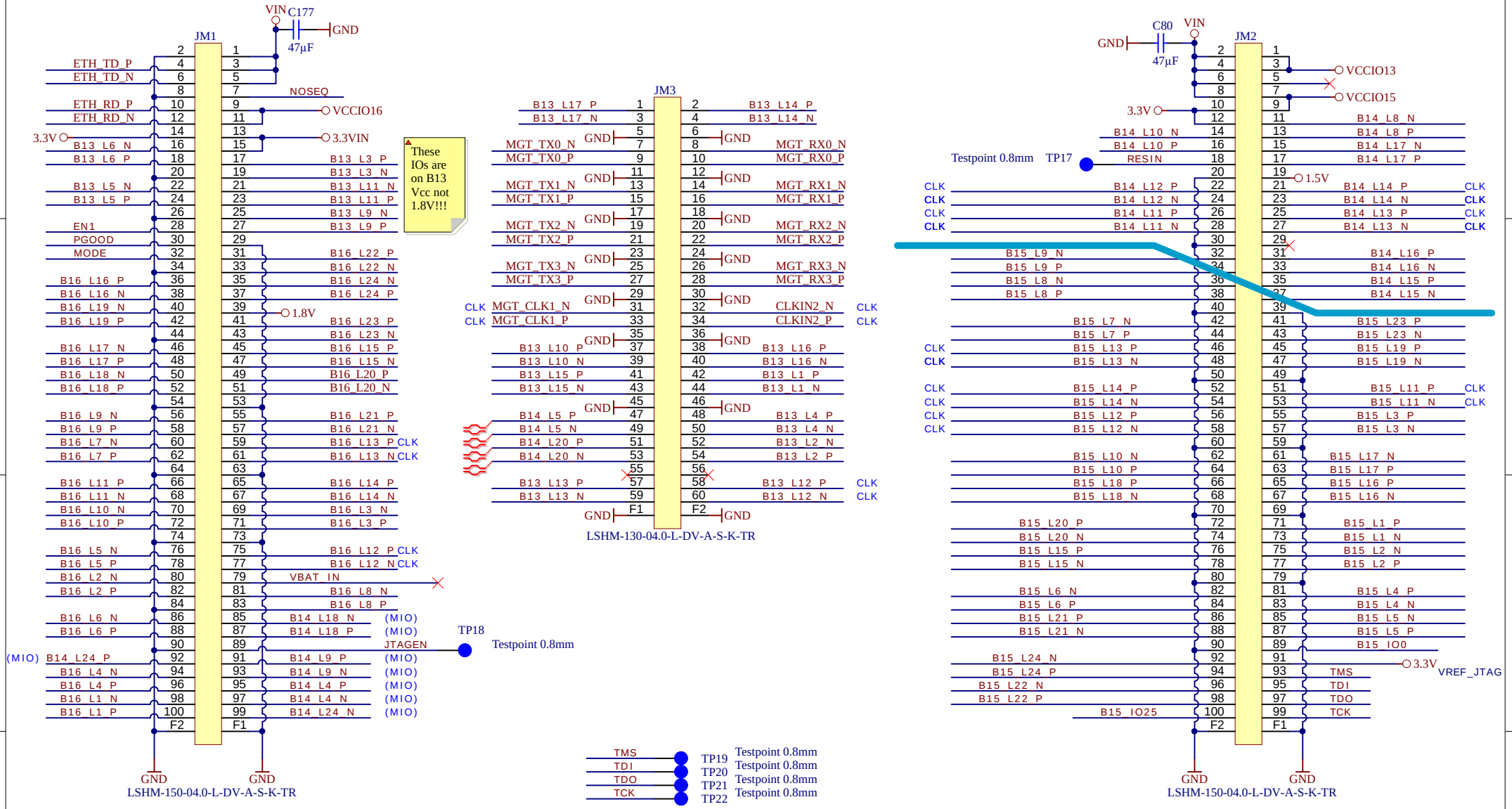
Top of Board



Screw M3x4 Distance Holder M3x8 Screw M3x6
Screw M3x4 Distance Holder M3x8 Screw M3x6
Screw M3x4 Distance Holder M3x8 Screw M3x6
Screw M3x4 Distance Holder M3x8 Screw M3x6

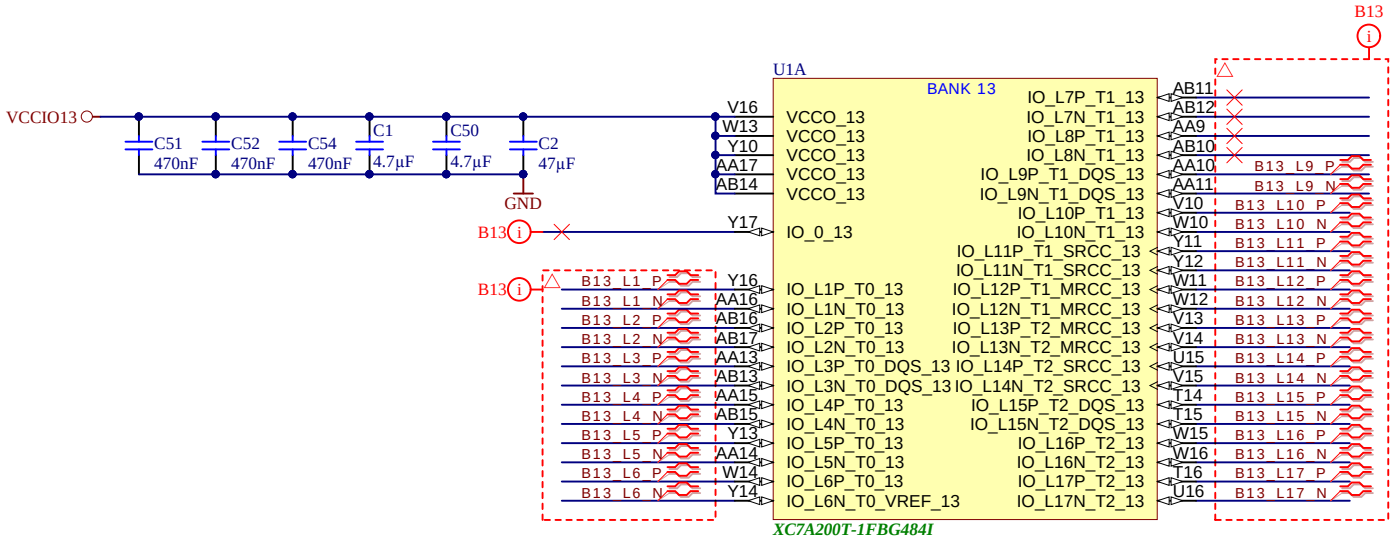
trenz electronic

Title: TE0712		
A4	Number: TE0712 200_1I	Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH	Page1 of 16
Filename: TE0712.SchDoc		

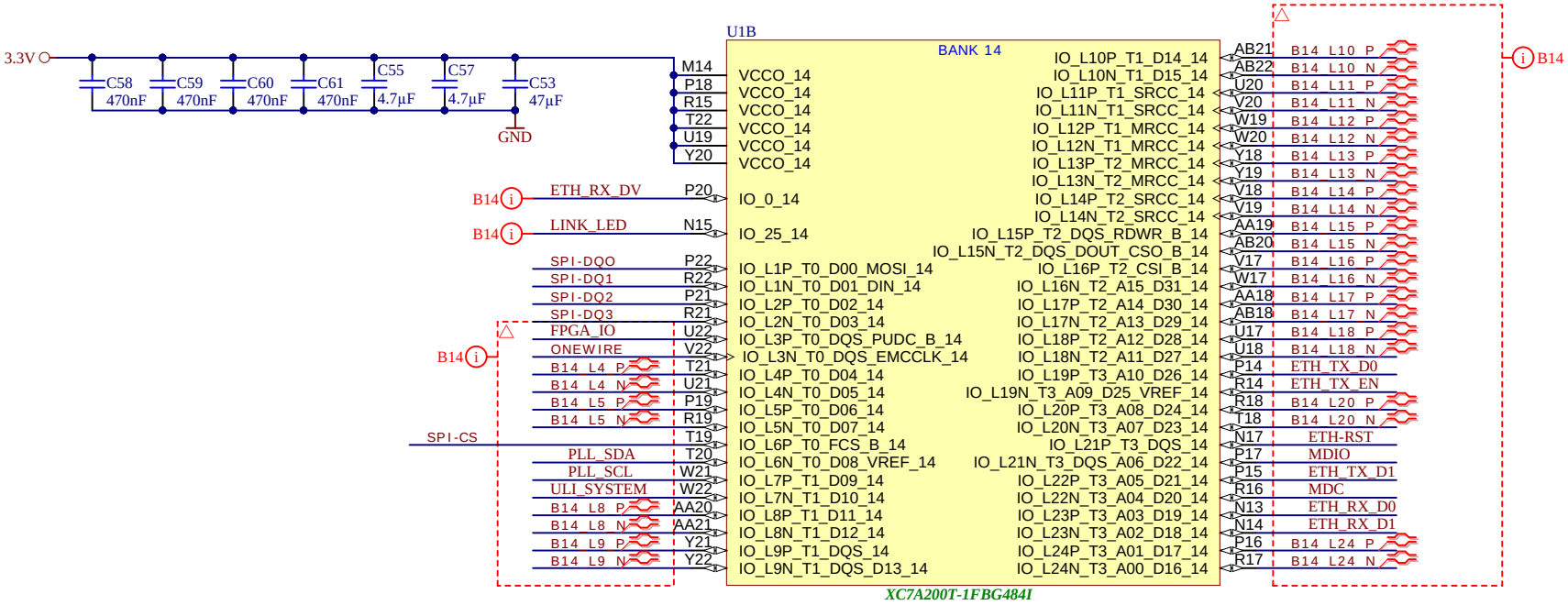


trenz electronic

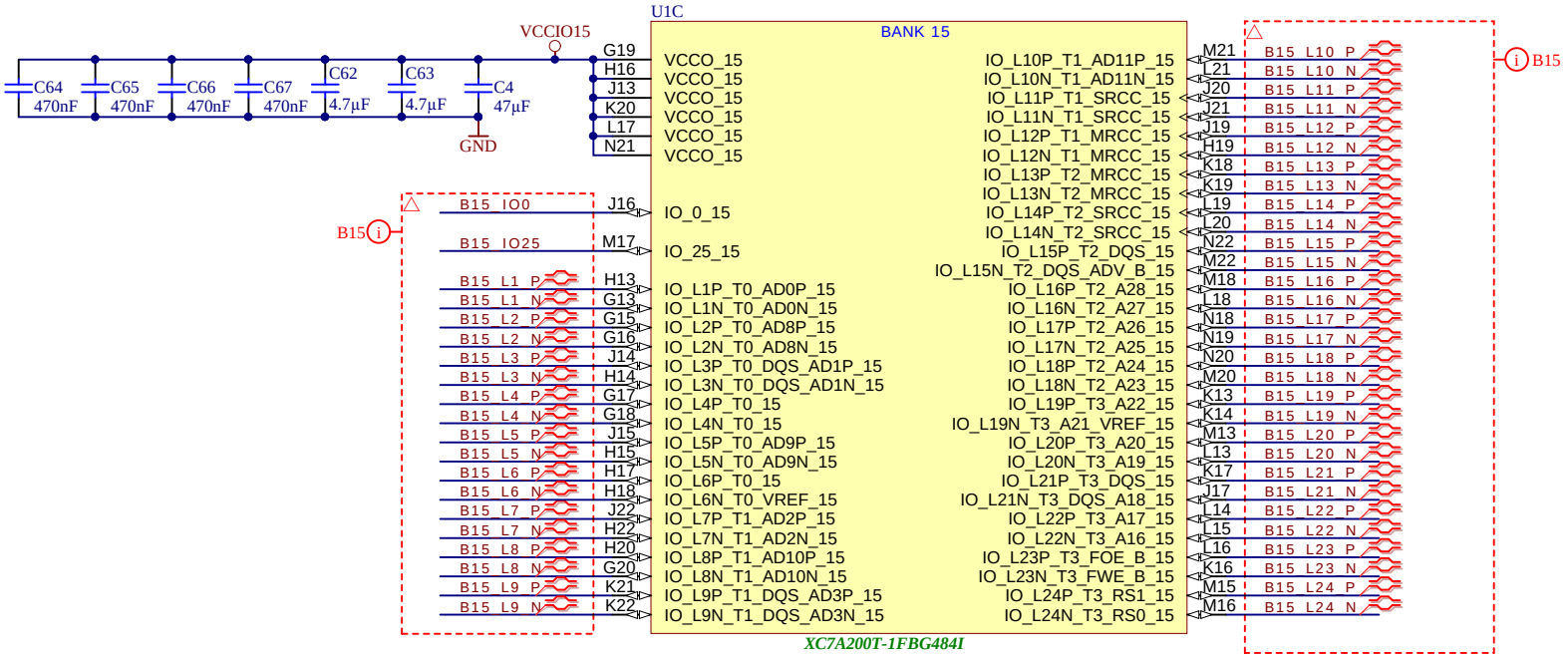
Title: B2B			
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page2 of 16
Filename: B2B-Connectors.SchDoc			



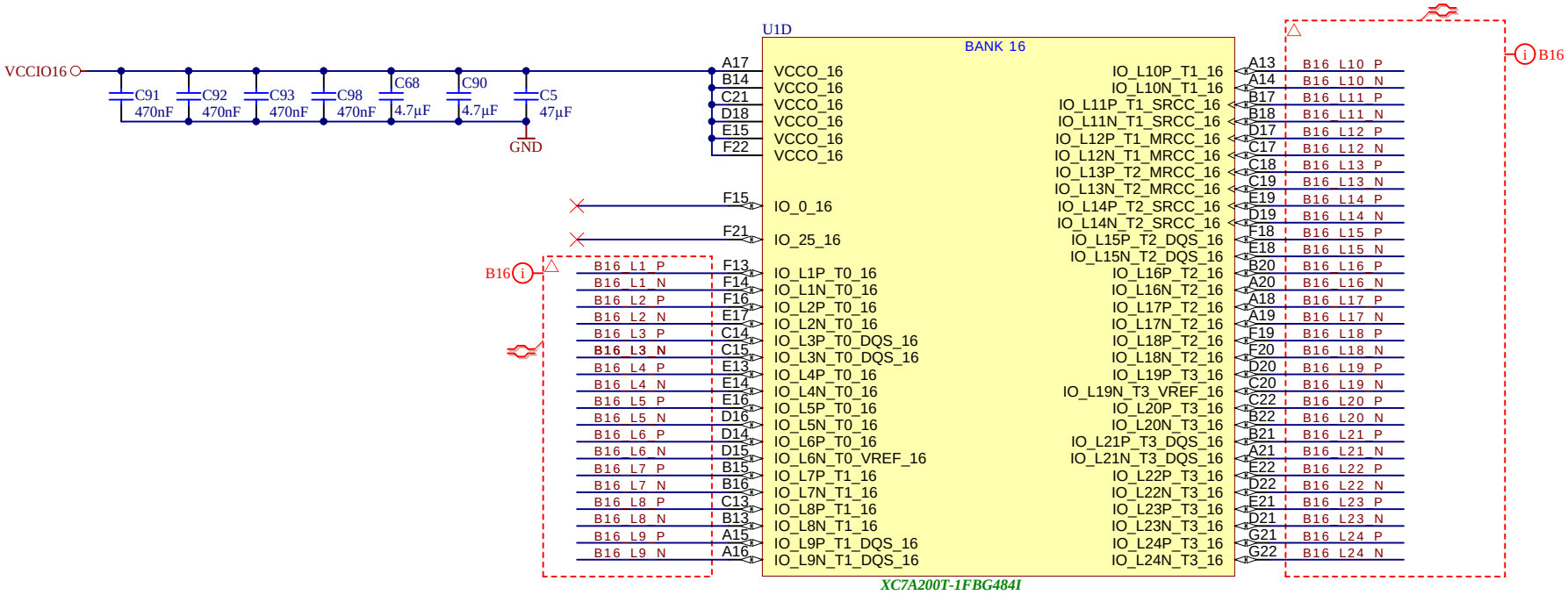
trenz electronic	Title: B13		
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page3 of 16
Filename: B13.SchDoc			



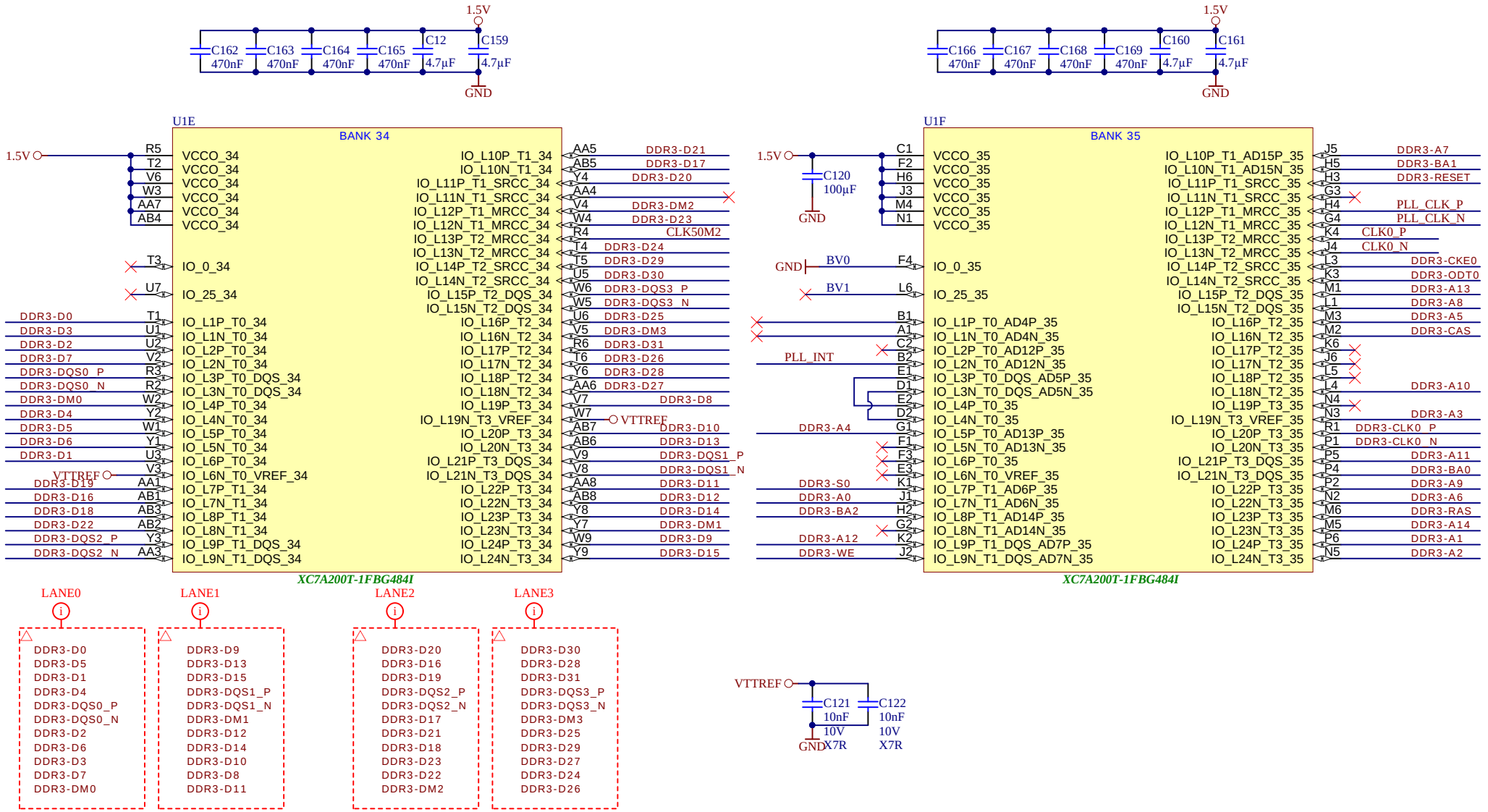
trenz electronic	Title: B14		
	A4	Number: TE0712 200_1I	Rev. 02
	Date: 2015-12-09	Copyright: Trenz Electronic GmbH	Page4 of 16
	Filename: B14.SchDoc		

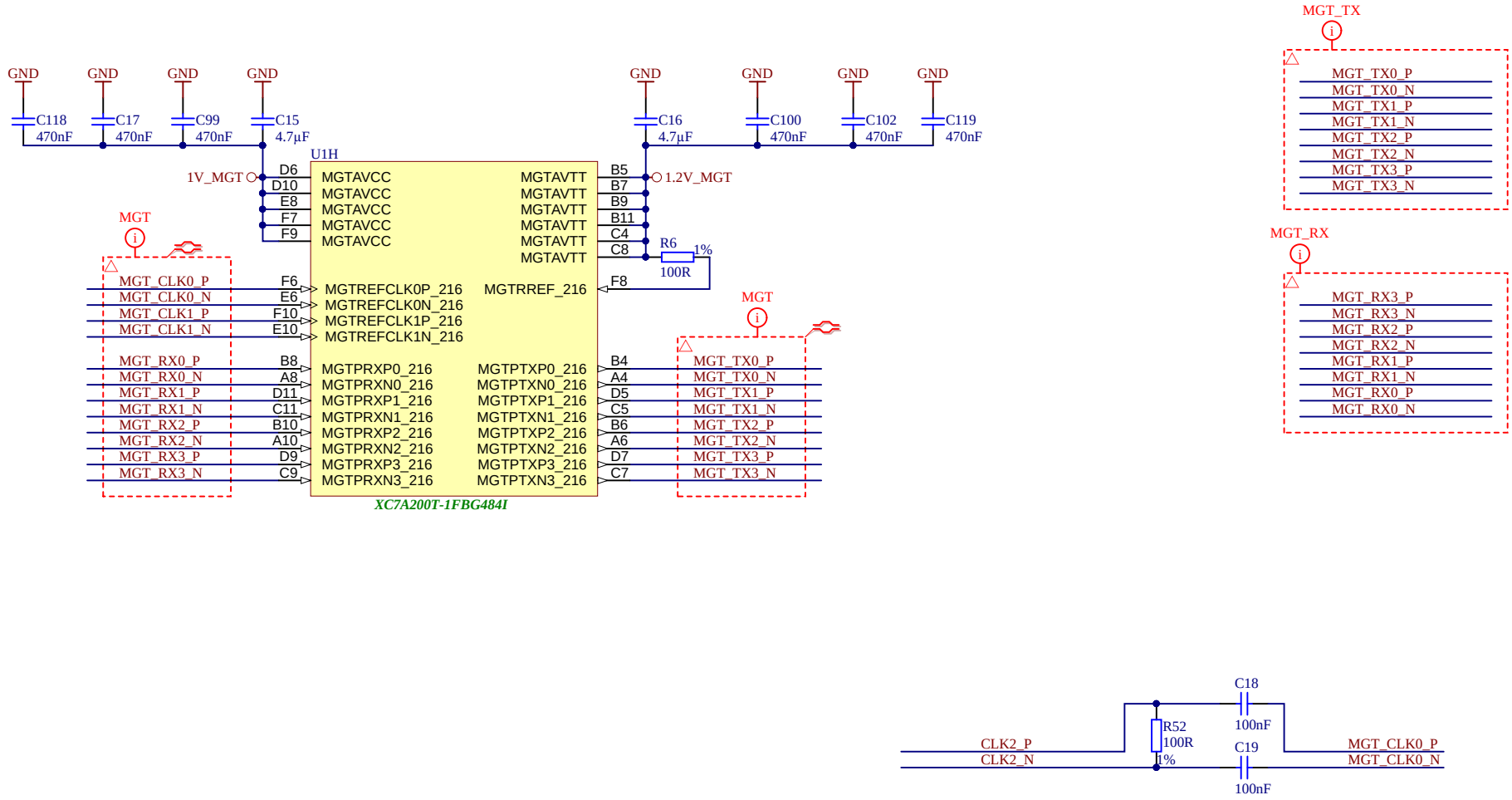


Title: B15			
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page5 of 16
Filename: B15.SchDoc			

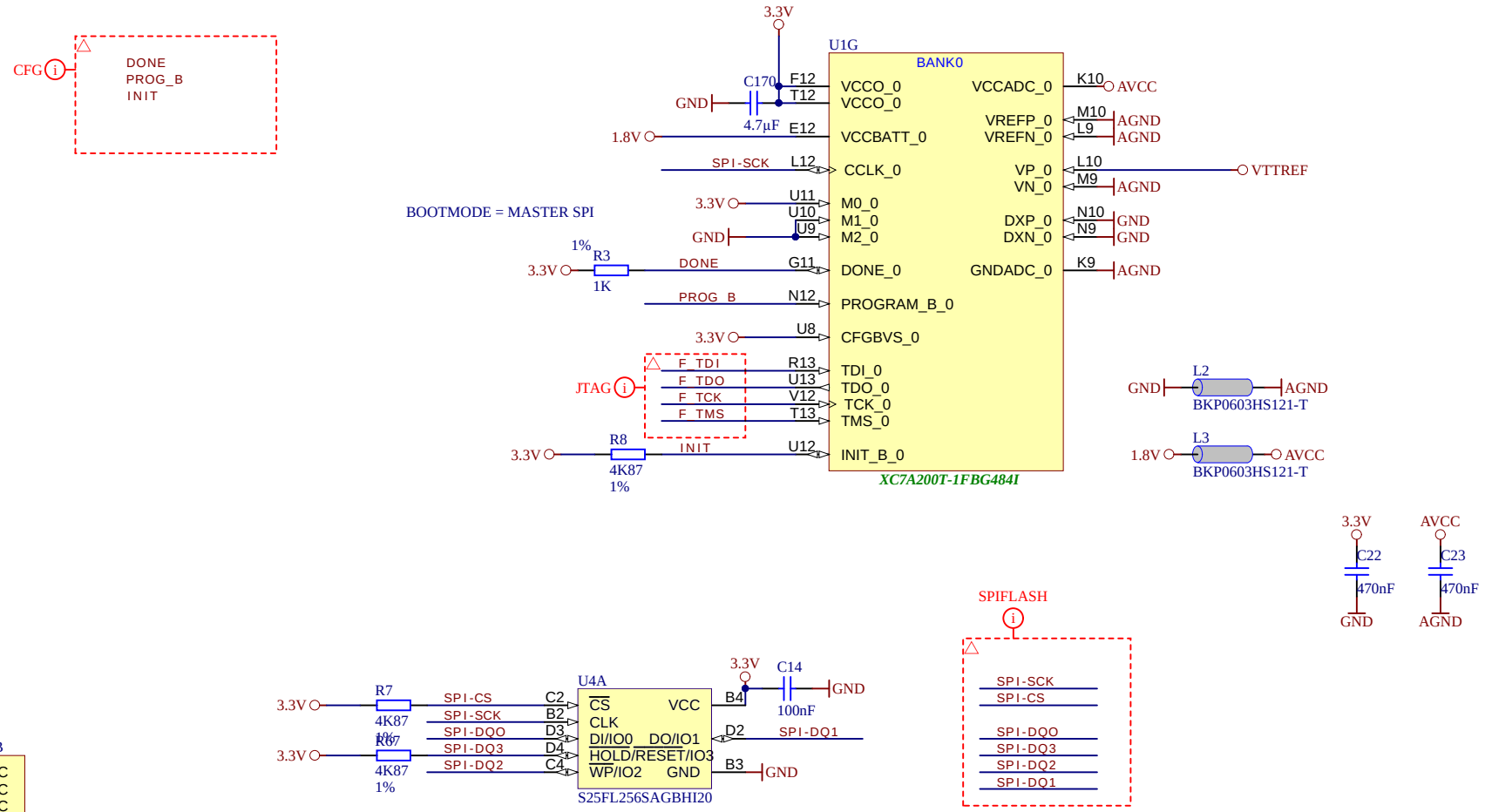


trenz electronic	Title: B16		
	A4	Number: TE0712 200_1I	Rev. 02
	Date: 2015-12-09	Copyright: Trenz Electronic GmbH	Page6 of 16
	Filename: B16.SchDoc		

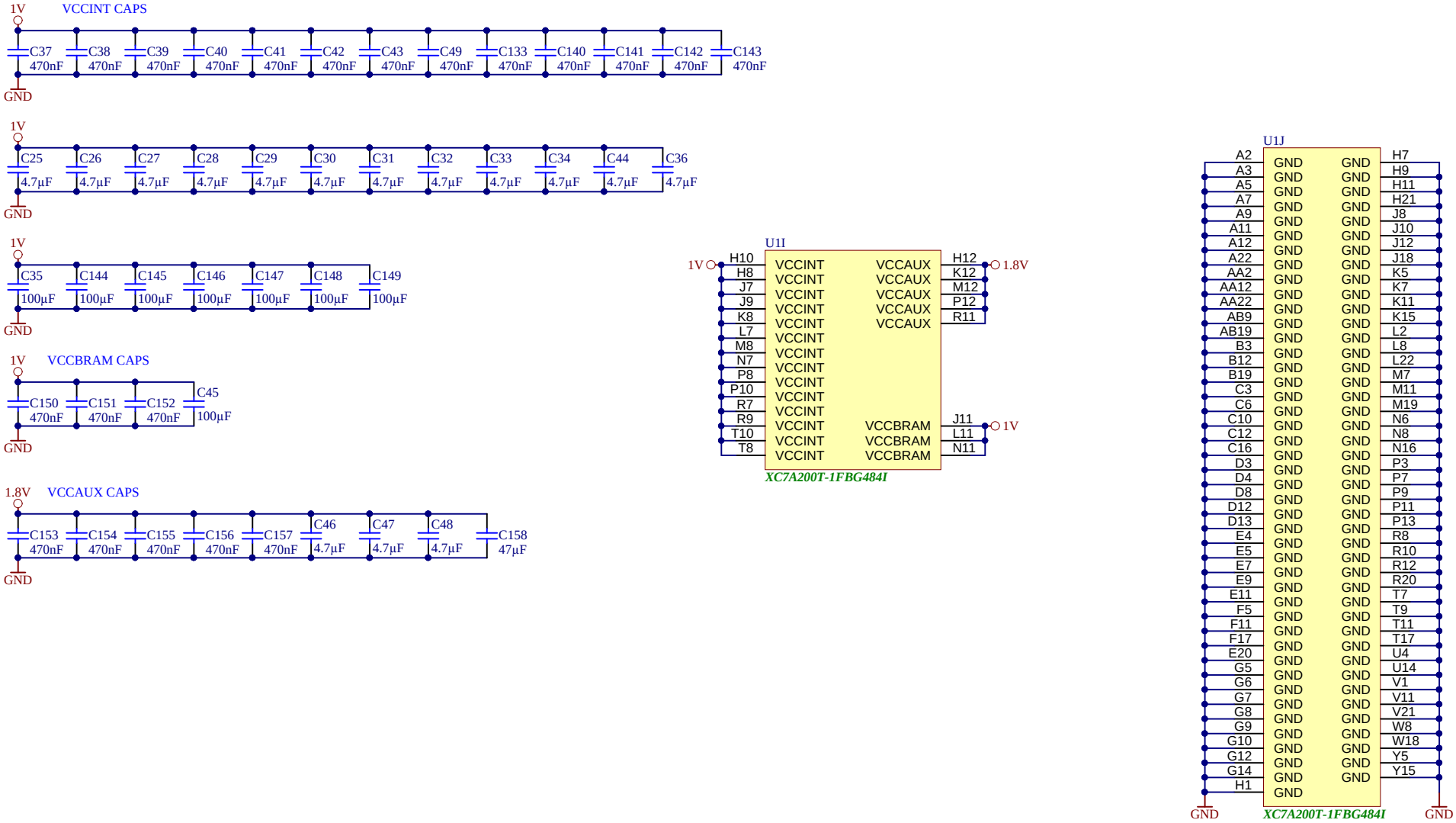

1.5V
C162 470nF
C163 470nF
C164 470nF
C165 470nF
C12 4.7µF
C159 4.7µF
GND
C166 470nF
C167 470nF
C168 470nF
C169 470nF
C160 4.7µF
C161 4.7µF
U1E
BANK 34
VCCO_34
IO_0_34
IO_25_34
IO_L1P_T0_34
IO_L1N_T0_34
IO_L2P_T0_34
IO_L2N_T0_34
IO_L3P_T0_DQS_34
IO_L3N_T0_DQS_34
IO_L4P_T0_34
IO_L4N_T0_34
IO_L5P_T0_34
IO_L5N_T0_34
IO_L6P_T0_34
IO_L6N_T0_VREF_34
IO_L7P_T1_34
IO_L7N_T1_34
IO_L8P_T1_34
IO_L8N_T1_34
IO_L9P_T1_DQS_34
IO_L9N_T1_DQS_34
IO_L10P_T1_34
IO_L10N_T1_34
IO_L11P_T1_SRCC_34
IO_L11N_T1_SRCC_34
IO_L12P_T1_MRCC_34
IO_L12N_T1_MRCC_34
IO_L13P_T2_MRCC_34
IO_L13N_T2_MRCC_34
IO_L14P_T2_SRCC_34
IO_L14N_T2_SRCC_34
IO_L15P_T2_DQS_34
IO_L15N_T2_DQS_34
IO_L16P_T2_34
IO_L16N_T2_34
IO_L17P_T2_34
IO_L17N_T2_34
IO_L18P_T2_34
IO_L18N_T2_34
IO_L19P_T3_34
IO_L19N_T3_VREF_34
IO_L20P_T3_34
IO_L20N_T3_34
IO_L21P_T3_DQS_34
IO_L21N_T3_DQS_34
IO_L22P_T3_34
IO_L22N_T3_34
IO_L23P_T3_34
IO_L23N_T3_34
IO_L24P_T3_34
IO_L24N_T3_34
DDR3-D0
DDR3-D3
DDR3-D2
DDR3-D7
DDR3-DQS0_P
DDR3-DQS0_N
DDR3-DM0
DDR3-D4
DDR3-D5
DDR3-D6
DDR3-D1
VTTREF
DDR3-D19
DDR3-D16
DDR3-D18
DDR3-D22
DDR3-DQS2_P
DDR3-DQS2_N
DDR3-D21
DDR3-D17
DDR3-D20
DDR3-DM2
DDR3-D23
CLK50M2
DDR3-D24
DDR3-D29
DDR3-D30
DDR3-DQS3_P
DDR3-DQS3_N
DDR3-D25
DDR3-DM3
DDR3-D31
DDR3-D26
DDR3-D28
DDR3-D27
DDR3-D8
VTTREF
DDR3-D10
DDR3-D13
DDR3-DQS1_P
DDR3-DQS1_N
DDR3-D11
DDR3-D12
DDR3-D14
DDR3-DM1
DDR3-D9
DDR3-D15
XC7A200T-1FBG484I
U1F
BANK 35
VCCO_35
IO_0_35
IO_25_35
IO_L1P_T0_AD4P_35
IO_L1N_T0_AD4N_35
IO_L2P_T0_AD12P_35
IO_L2N_T0_AD12N_35
IO_L3P_T0_DQS_AD5P_35
IO_L3N_T0_DQS_AD5N_35
IO_L4P_T0_35
IO_L4N_T0_35
IO_L5P_T0_AD13P_35
IO_L5N_T0_AD13N_35
IO_L6P_T0_35
IO_L6N_T0_VREF_35
IO_L7P_T1_AD6P_35
IO_L7N_T1_AD6N_35
IO_L8P_T1_AD14P_35
IO_L8N_T1_AD14N_35
IO_L9P_T1_DQS_AD7P_35
IO_L9N_T1_DQS_AD7N_35
IO_L10P_T1_AD15P_35
IO_L10N_T1_AD15N_35
IO_L11P_T1_SRCC_35
IO_L11N_T1_SRCC_35
IO_L12P_T1_MRCC_35
IO_L12N_T1_MRCC_35
IO_L13P_T2_MRCC_35
IO_L13N_T2_MRCC_35
IO_L14P_T2_SRCC_35
IO_L14N_T2_SRCC_35
IO_L15P_T2_DQS_35
IO_L15N_T2_DQS_35
IO_L16P_T2_35
IO_L16N_T2_35
IO_L17P_T2_35
IO_L17N_T2_35
IO_L18P_T2_35
IO_L18N_T2_35
IO_L19P_T3_35
IO_L19N_T3_VREF_35
IO_L20P_T3_35
IO_L20N_T3_35
IO_L21P_T3_DQS_35
IO_L21N_T3_DQS_35
IO_L22P_T3_35
IO_L22N_T3_35
IO_L23P_T3_35
IO_L23N_T3_35
IO_L24P_T3_35
IO_L24N_T3_35
C120 100µF
GND
BV0
BV1
PLL_INT
DDR3-A4
DDR3-S0
DDR3-A0
DDR3-BA2
DDR3-A12
DDR3-WE
DDR3-A7
DDR3-BA1
DDR3-RESET
PLL_CLK_P
PLL_CLK_N
CLK0_P
CLK0_N
DDR3-CKE0
DDR3-ODT0
DDR3-A13
DDR3-A8
DDR3-A5
DDR3-CAS
DDR3-A10
DDR3-A3
DDR3-CLK0_P
DDR3-CLK0_N
DDR3-A11
DDR3-BA0
DDR3-A9
DDR3-A6
DDR3-RAS
DDR3-A14
DDR3-A1
DDR3-A2
XC7A200T-1FBG484I
LANE0
LANE1
LANE2
LANE3
DDR3-D0
DDR3-D5
DDR3-D1
DDR3-D4
DDR3-DQS0_P
DDR3-DQS0_N
DDR3-D2
DDR3-D6
DDR3-D3
DDR3-D7
DDR3-DM0
DDR3-D9
DDR3-D13
DDR3-D15
DDR3-DQS1_P
DDR3-DQS1_N
DDR3-DM1
DDR3-D12
DDR3-D14
DDR3-D10
DDR3-D8
DDR3-D11
DDR3-D20
DDR3-D16
DDR3-D19
DDR3-DQS2_P
DDR3-DQS2_N
DDR3-D17
DDR3-D21
DDR3-D18
DDR3-D23
DDR3-D22
DDR3-DM2
DDR3-D30
DDR3-D28
DDR3-D31
DDR3-DQS3_P
DDR3-DQS3_N
DDR3-DM3
DDR3-D25
DDR3-D29
DDR3-D27
DDR3-D24
DDR3-D26
VTTREF
C121 10nF 10V X7R
C122 10nF 10V X7R
GND
trenz electronic
Title: B34
A4
Number: TE0712 200_1I
Rev. 02
Date: 2015-12-09
Copyright: Trenz Electronic GmbH
Page7 of 16
Filename: B34.SchDoc



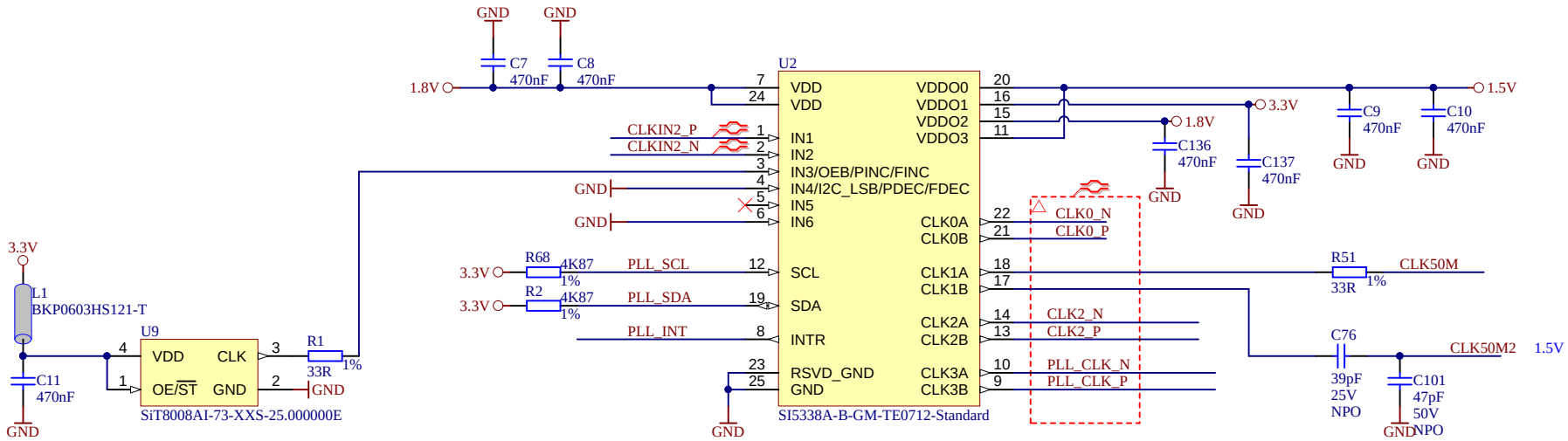
trenz electronic	Title: MGT		
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page 8 of 16
Filename: FPGA-MGT.SchDoc			



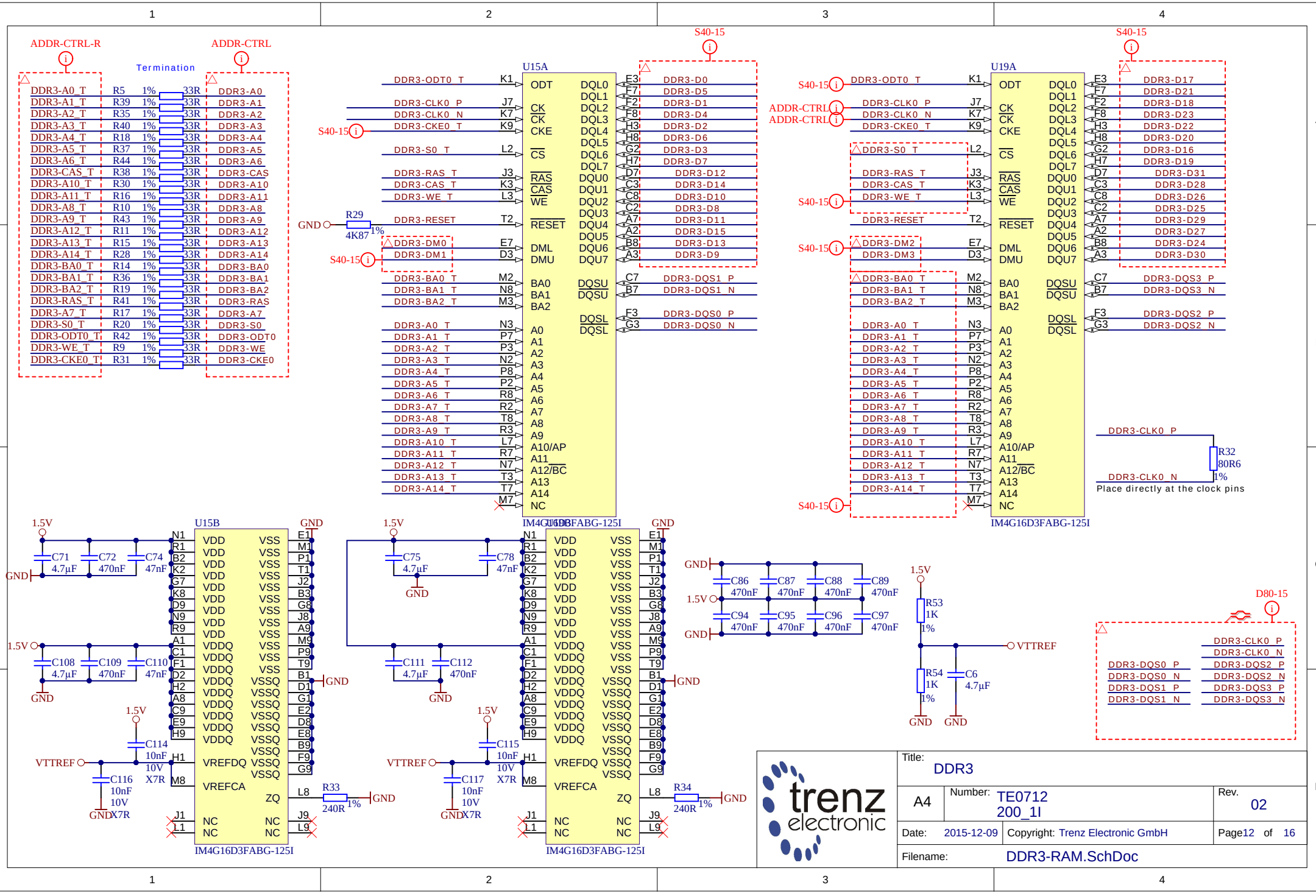
trenz electronic	Title: CFG		
	A4	Number: TE0712 200_1I	Rev. 02
	Date: 2015-12-09	Copyright: Trenz Electronic GmbH	Page9 of 16
	Filename: FPGA-CFG.SchDoc		

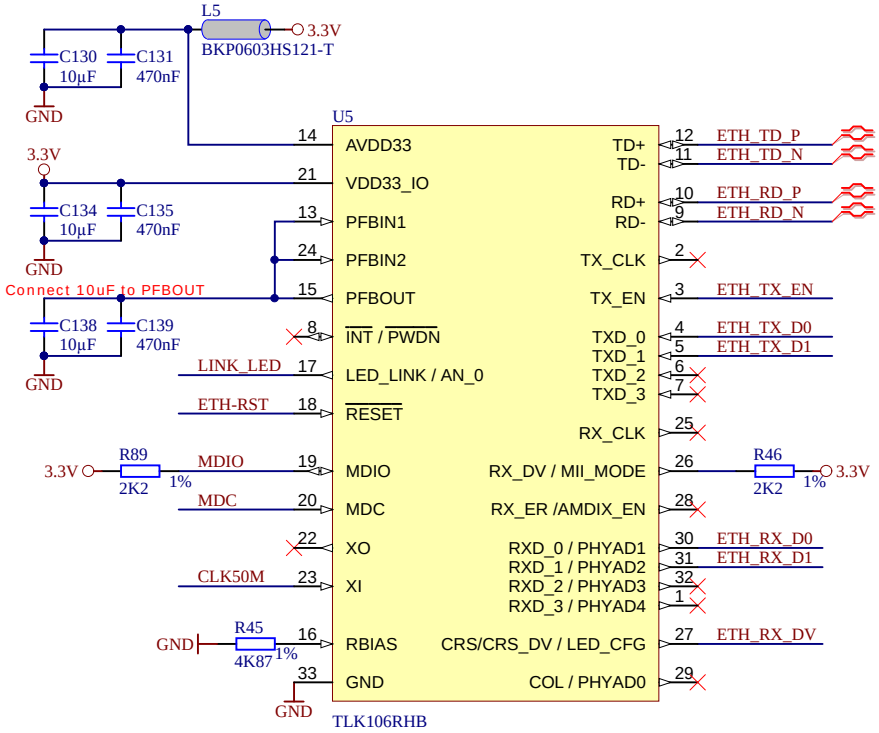


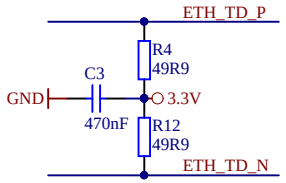
Title: PWR			
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page10 of 16
Filename: FPGA-PWR.SchDoc			

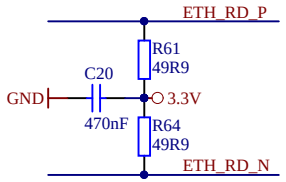


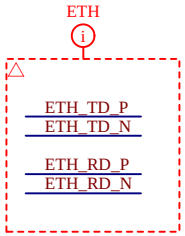
trenz electronic	Title: Clock		
	A4	Number: TE0712 200_1I	Rev. 02
	Date: 2015-12-09	Copyright: Trenz Electronic GmbH	Page 11 of 16
	Filename: Clock.SchDoc		


ADDR-CTRL-R
ADDR-CTRL
Termination
DDR3-A0_T R5 1% 33R DDR3-A0
DDR3-A1_T R39 1% 33R DDR3-A1
DDR3-A2_T R35 1% 33R DDR3-A2
DDR3-A3_T R40 1% 33R DDR3-A3
DDR3-A4_T R18 1% 33R DDR3-A4
DDR3-A5_T R37 1% 33R DDR3-A5
DDR3-A6_T R44 1% 33R DDR3-A6
DDR3-CAS_T R38 1% 33R DDR3-CAS
DDR3-A10_T R30 1% 33R DDR3-A10
DDR3-A11_T R16 1% 33R DDR3-A11
DDR3-A8_T R10 1% 33R DDR3-A8
DDR3-A9_T R43 1% 33R DDR3-A9
DDR3-A12_T R11 1% 33R DDR3-A12
DDR3-A13_T R15 1% 33R DDR3-A13
DDR3-A14_T R28 1% 33R DDR3-A14
DDR3-BA0_T R14 1% 33R DDR3-BA0
DDR3-BA1_T R36 1% 33R DDR3-BA1
DDR3-BA2_T R19 1% 33R DDR3-BA2
DDR3-RAS_T R41 1% 33R DDR3-RAS
DDR3-A7_T R17 1% 33R DDR3-A7
DDR3-S0_T R20 1% 33R DDR3-S0
DDR3-ODT0_T R42 1% 33R DDR3-ODT0
DDR3-WE_T R9 1% 33R DDR3-WE
DDR3-CKE0_T R31 1% 33R DDR3-CKE0
U15A
S40-15
ODT CK CKE CS RAS CAS WE RESET DML DMU BA0 BA1 BA2 A0 A1 A2 A3 A4 A5 A6 A7 A8 A9 A10/AP A11 A12/BC A13 A14 NC
DQL0 DQL1 DQL2 DQL3 DQL4 DQL5 DQL6 DQL7 DQU0 DQU1 DQU2 DQU3 DQU4 DQU5 DQU6 DQU7 DQSU DQSU DQSL DQSL
DDR3-D0 DDR3-D5 DDR3-D1 DDR3-D4 DDR3-D2 DDR3-D6 DDR3-D3 DDR3-D7 DDR3-D12 DDR3-D14 DDR3-D10 DDR3-D8 DDR3-D11 DDR3-D15 DDR3-D13 DDR3-D9
DDR3-DQS1_P DDR3-DQS1_N DDR3-DQS0_P DDR3-DQS0_N
R29 4K87 1%
GND
U19A
DDR3-D17 DDR3-D21 DDR3-D18 DDR3-D23 DDR3-D22 DDR3-D20 DDR3-D16 DDR3-D19 DDR3-D31 DDR3-D28 DDR3-D26 DDR3-D25 DDR3-D29 DDR3-D27 DDR3-D24 DDR3-D30
DDR3-DQS3_P DDR3-DQS3_N DDR3-DQS2_P DDR3-DQS2_N
ADDR-CTRL
IM4G16D3FABG-125I
DDR3-CLK0_P
DDR3-CLK0_N
R32 80R6 1%
Place directly at the clock pins
U15B
1.5V
GND
VDD VSS VDDQ VSSQ VREFDQ VREFCA ZQ NC
C71 4.7µF C72 470nF C74 47nF
C108 4.7µF C109 470nF C110 47nF
C114 10nF 10V X7R
C116 10nF 10V X7R
VTTREF
R33 240R 1%
C75 4.7µF C78 47nF
C111 4.7µF C112 470nF
C115 10nF 10V X7R
C117 10nF 10V X7R
R34 240R 1%
C86 C87 C88 C89 C94 C95 C96 C97 470nF
R53 1K 1%
R54 1K 1%
C6 4.7µF
VTTREF
D80-15
DDR3-CLK0_P DDR3-CLK0_N DDR3-DQS0_P DDR3-DQS0_N DDR3-DQS1_P DDR3-DQS1_N DDR3-DQS2_P DDR3-DQS2_N DDR3-DQS3_P DDR3-DQS3_N
trenz electronic
Title: DDR3
A4
Number: TE0712 200_1I
Rev. 02
Date: 2015-12-09
Copyright: Trenz Electronic GmbH
Page12 of 16
Filename: DDR3-RAM.SchDoc

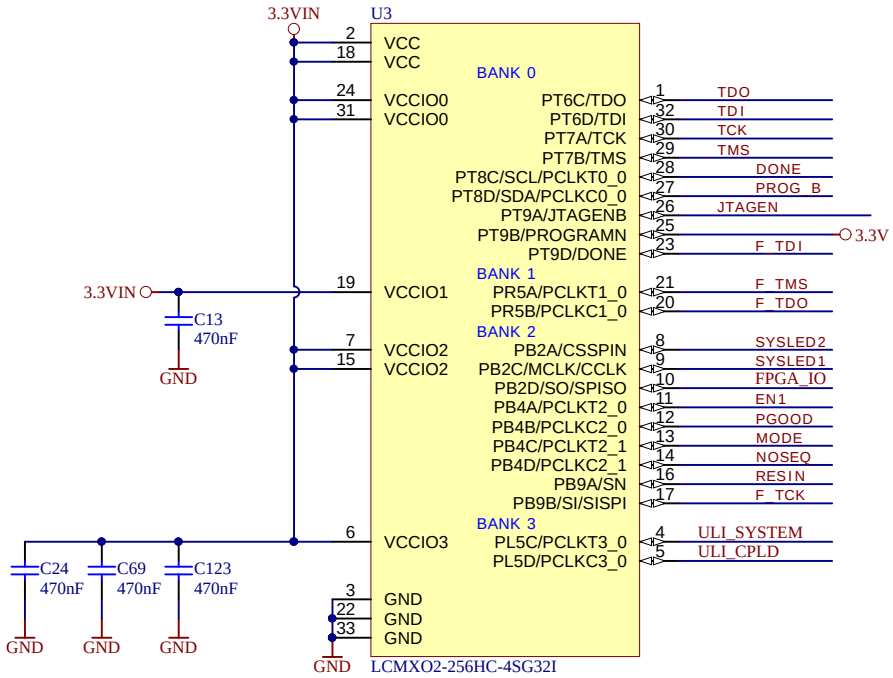


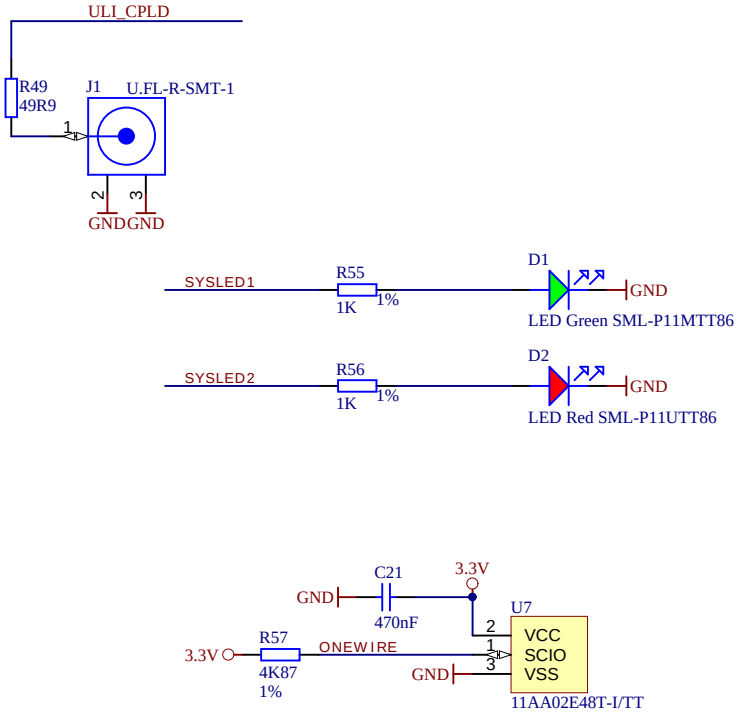




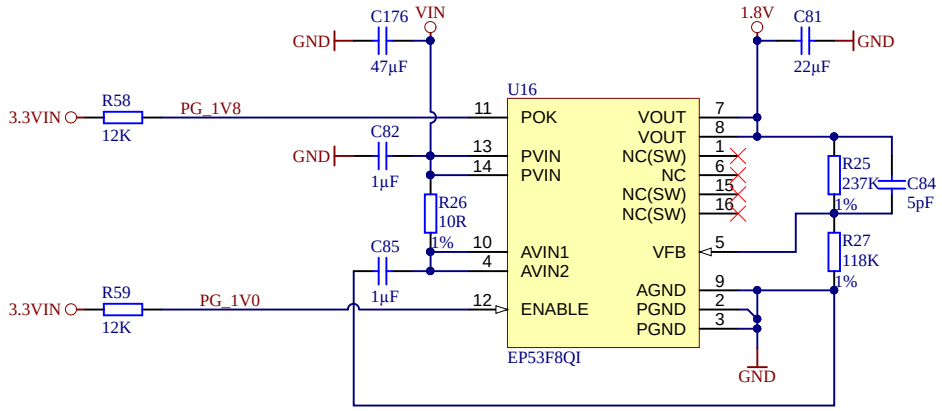


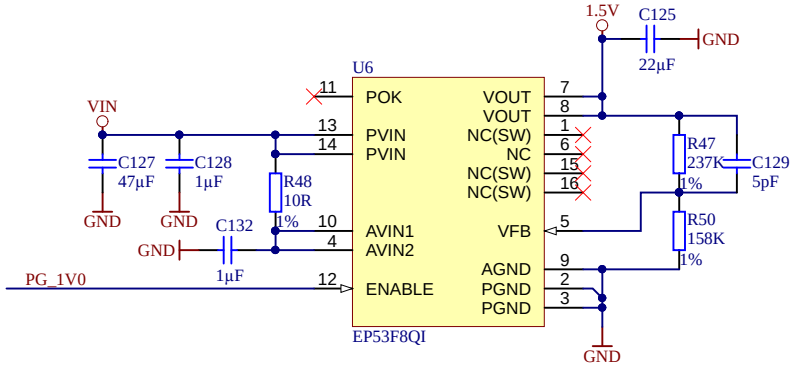
trenz electronic	Title: ETH		
	A4	Number: TE0712 200_1I	Rev. 02
	Date: 2015-12-09	Copyright: Trenz Electronic GmbH	Page13 of 16
	Filename: ETHERNET.SchDoc		

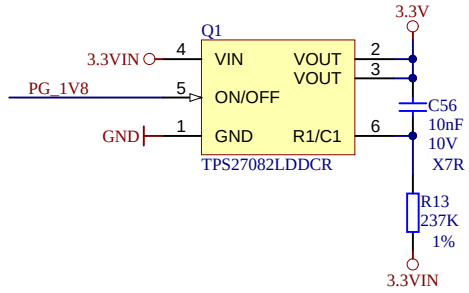


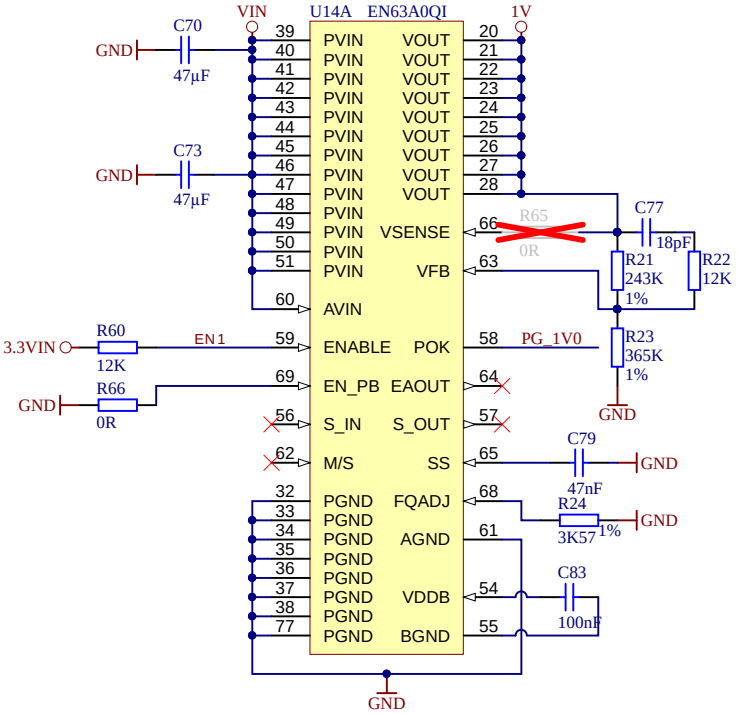


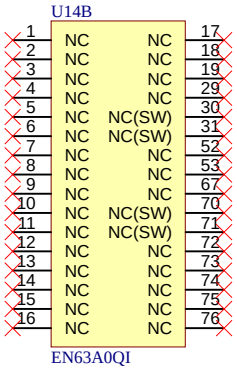
trenz electronic	Title: CPLD		
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page14 of 16
Filename: CPLD.SchDoc			



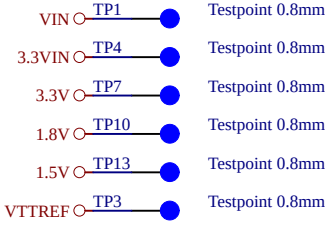


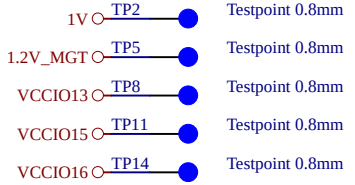


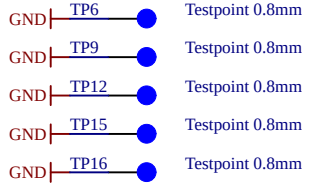




R65	R66	MODE EN63A0QI
OK	X	enable pre-bias start-up
X	OK	disable pre-bias start-up

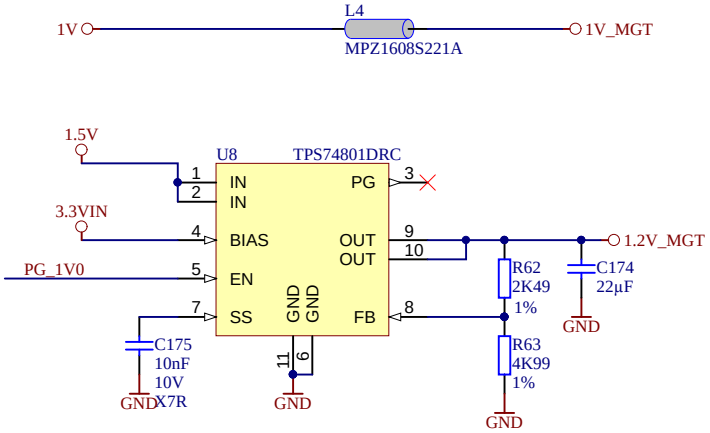






trenz electronic

Title: PWR			
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page15 of 16
Filename: PWR1.SchDoc			



trenz electronic

Title: PWR			
A4	Number: TE0712 200_1I		Rev. 02
Date: 2015-12-09	Copyright: Trenz Electronic GmbH		Page16 of 16
Filename: PWR2.SchDoc			