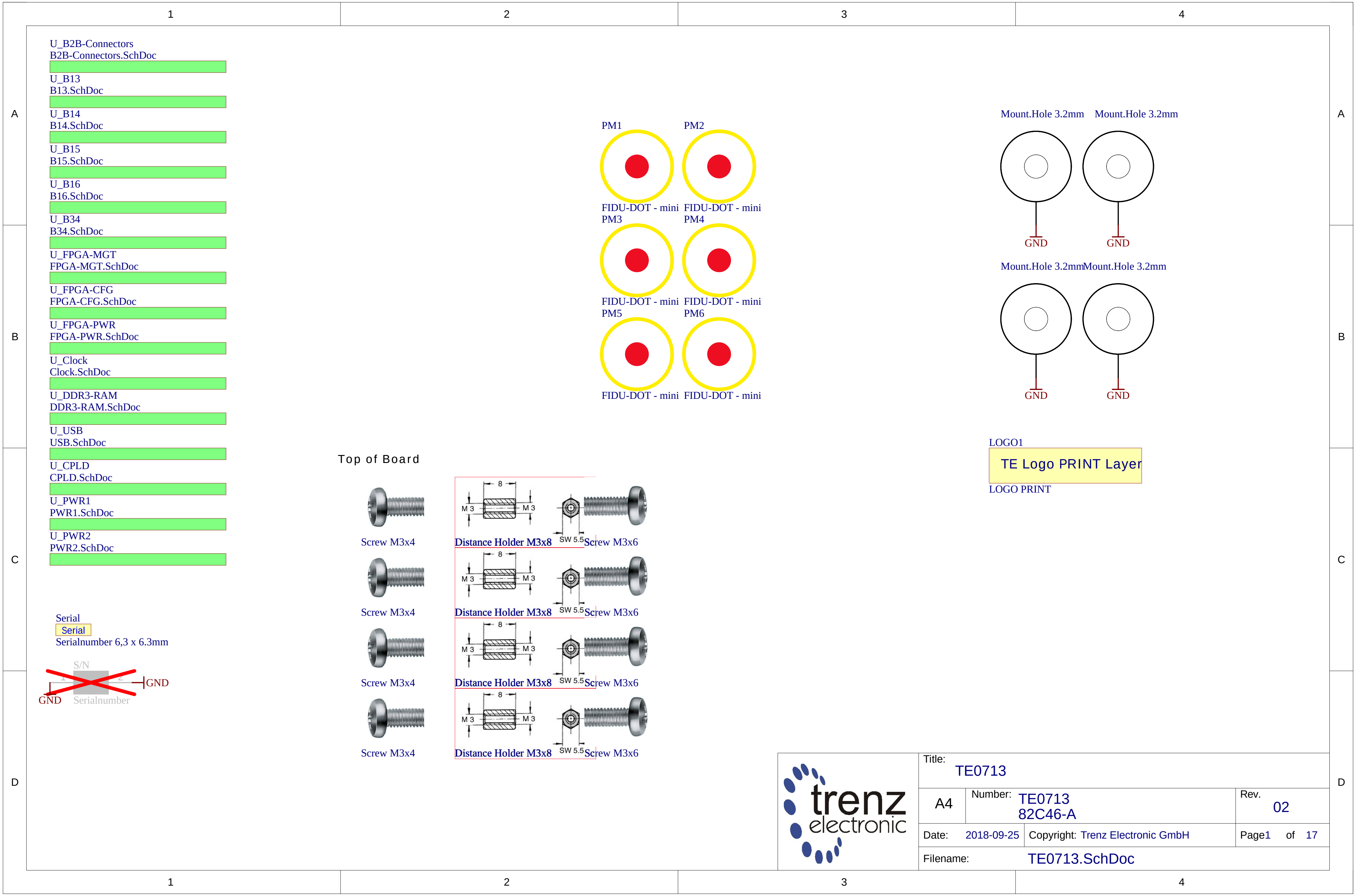
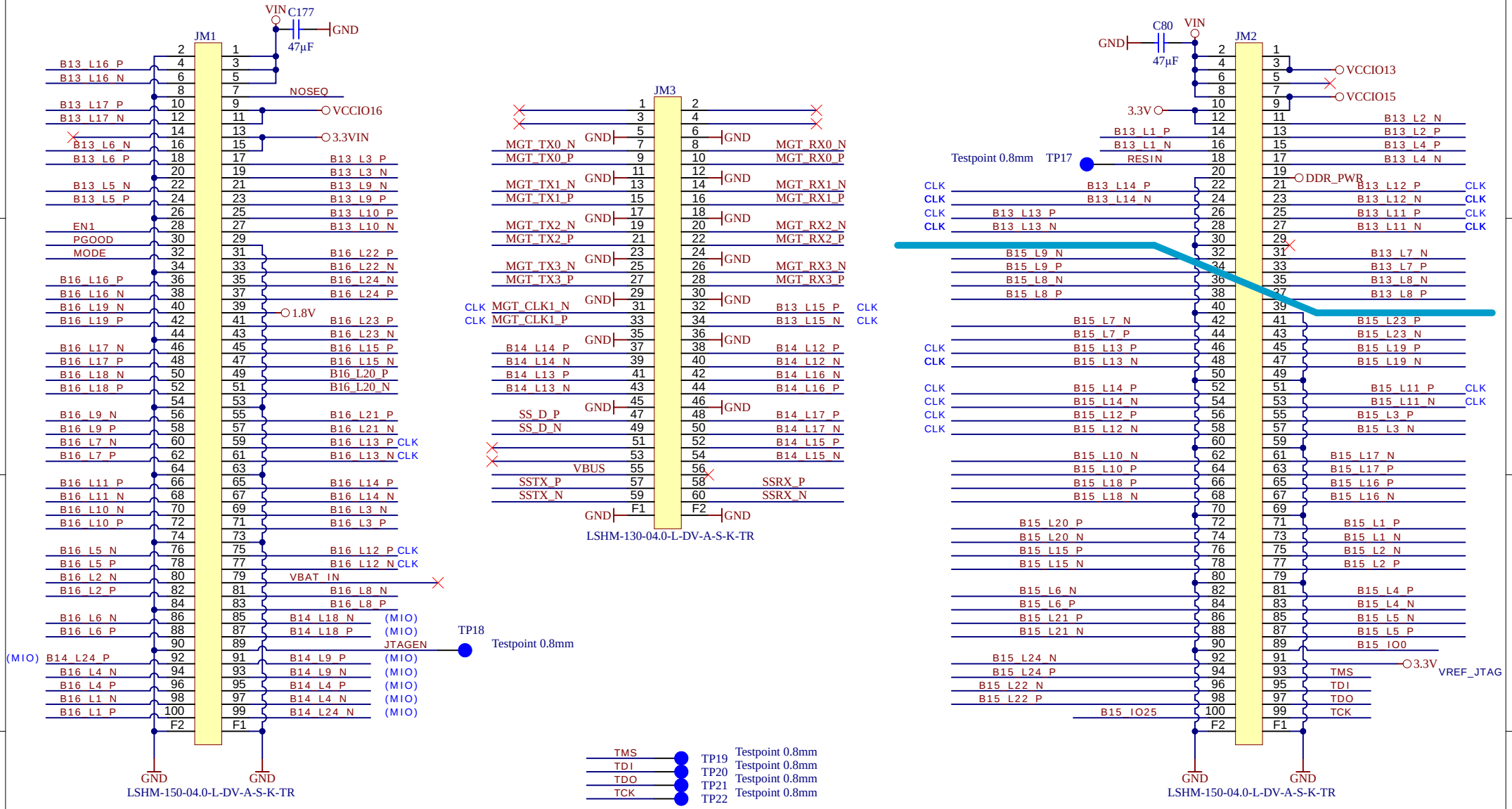
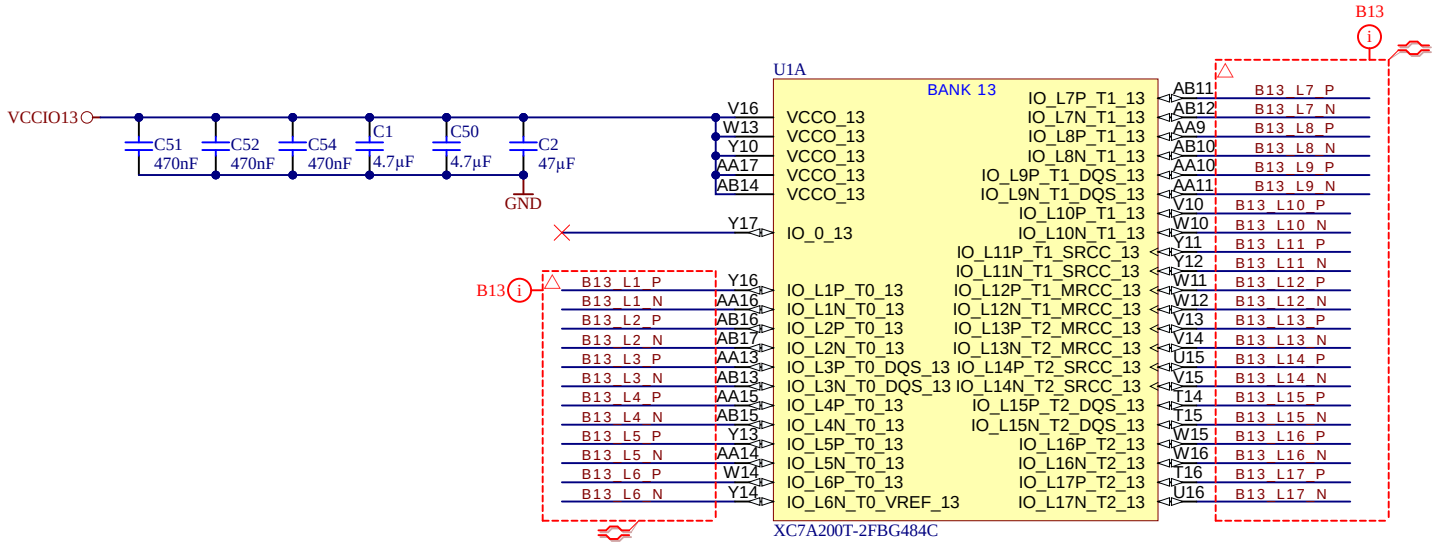


U_B2B-Connectors
B2B-Connectors.SchDoc
U_B13
B13.SchDoc
U_B14
B14.SchDoc
U_B15
B15.SchDoc
U_B16
B16.SchDoc
U_B34
B34.SchDoc
U_FPGA-MGT
FPGA-MGT.SchDoc
U_FPGA-CFG
FPGA-CFG.SchDoc
U_FPGA-PWR
FPGA-PWR.SchDoc
U_Clock
Clock.SchDoc
U_DDR3-RAM
DDR3-RAM.SchDoc
U_USB
USB.SchDoc
U_CPLD
CPLD.SchDoc
U_PWR1
PWR1.SchDoc
U_PWR2
PWR2.SchDoc
PM1
PM2
FIDU-DOT - mini
FIDU-DOT - mini
PM3
PM4
FIDU-DOT - mini
FIDU-DOT - mini
PM5
PM6
FIDU-DOT - mini
FIDU-DOT - mini
Mount.Hole 3.2mm
Mount.Hole 3.2mm
GND
GND
Mount.Hole 3.2mm
Mount.Hole 3.2mm
GND
GND
LOGO1
TE Logo PRINT Layer
LOGO PRINT
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
Serial
Serial
Serialnumber 6,3 x 6.3mm
S/N
GND
GND
Serialnumber
Title: TE0713
A4
Number: TE0713 82C46-A
Rev. 02
Date: 2018-09-25
Copyright: Trenz Electronic GmbH
Page1 of 17
Filename: TE0713.SchDoc

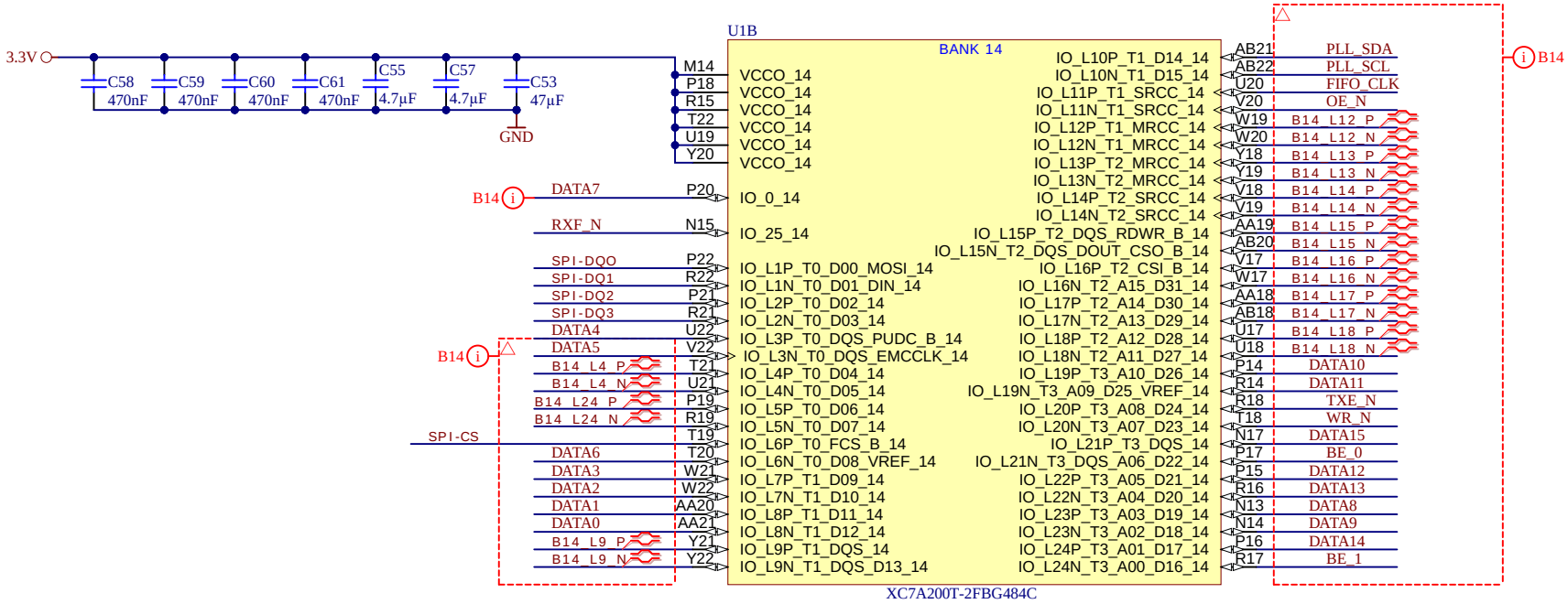


Title: B2B		
A4	Number: TE0713 82C46-A	Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH	Page2 of 17
Filename: B2B-Connectors.SchDoc		

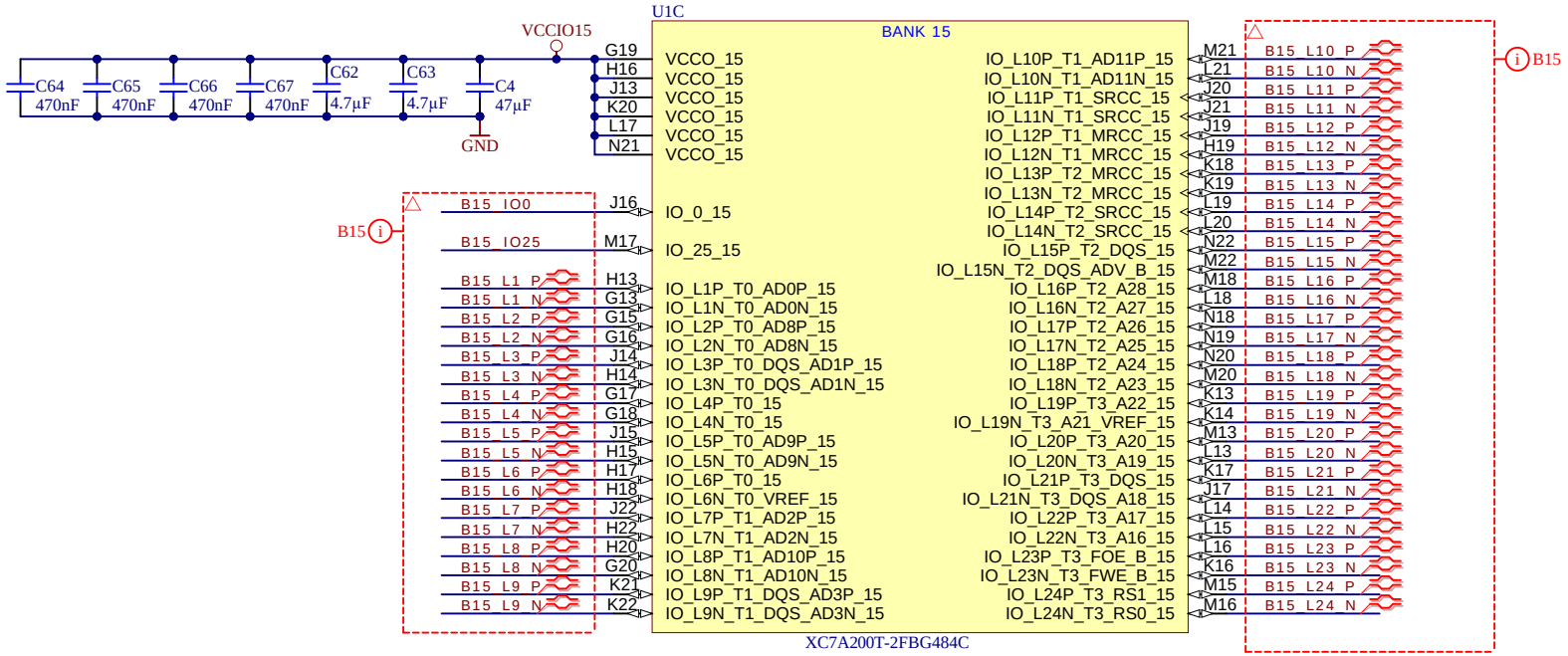


trenz electronic

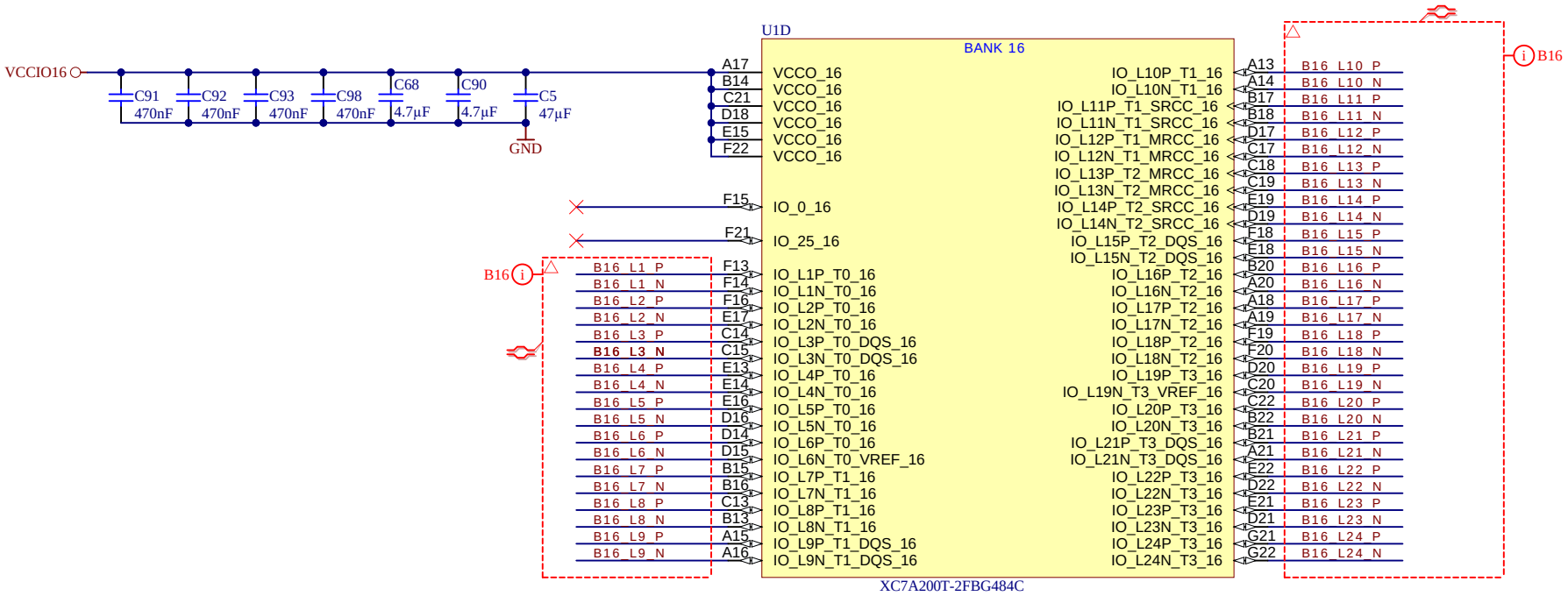
Title: B13		
A4	Number: TE0713 82C46-A	Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH	Page3 of 17
Filename: B13.SchDoc		



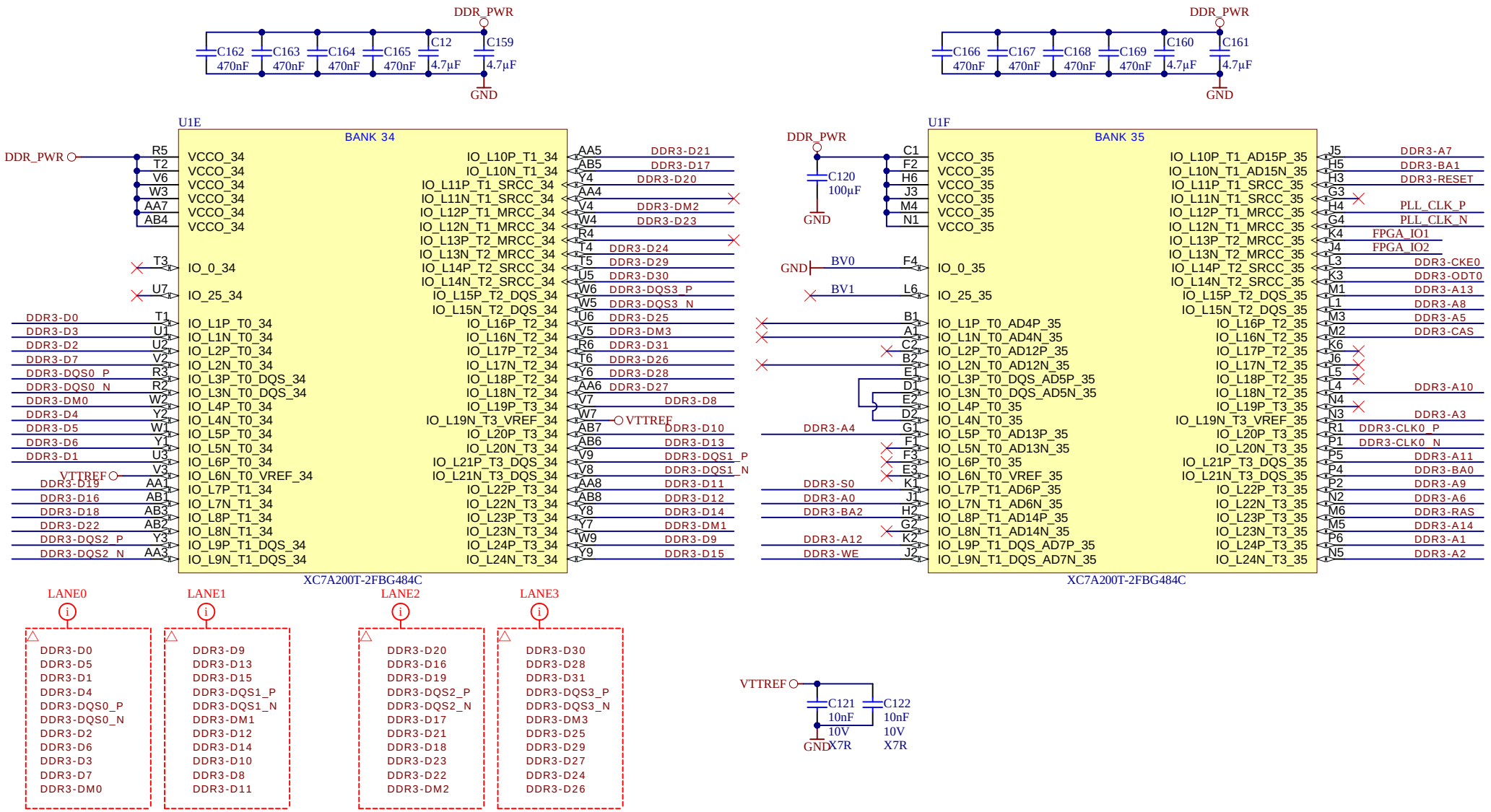
trenz electronic	Title: B14		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page4 of 17
Filename: B14.SchDoc			



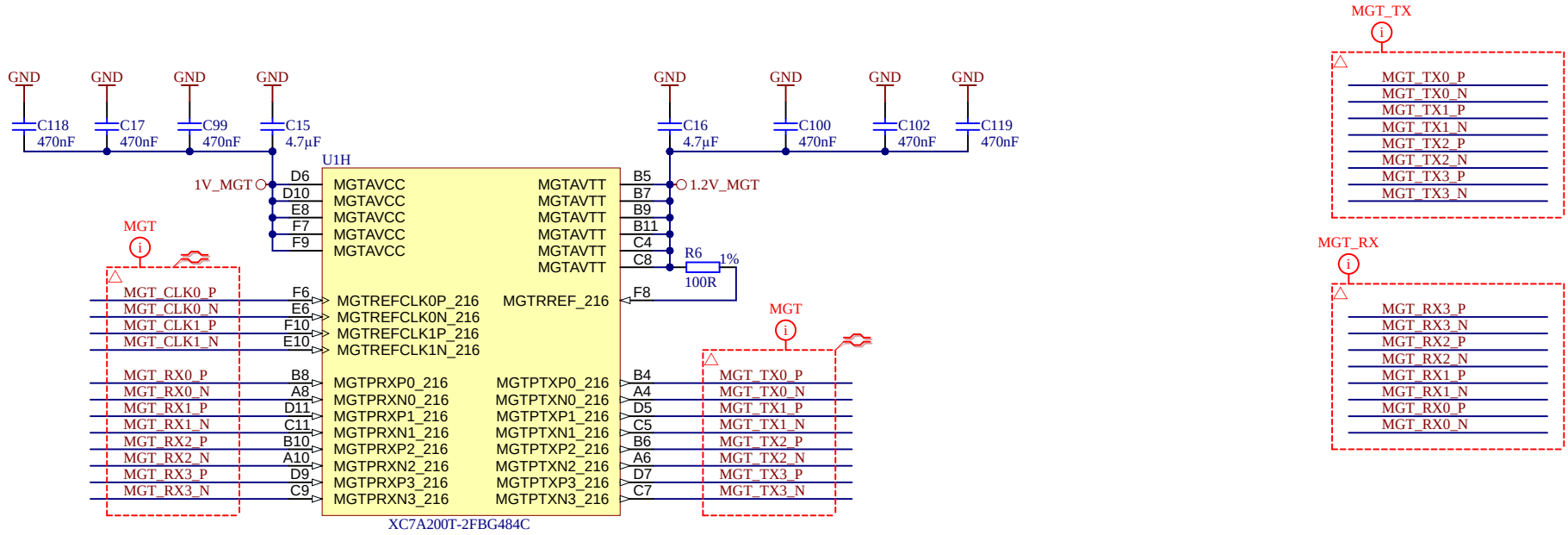
Title: B15			
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page5 of 17
Filename: B15.SchDoc			

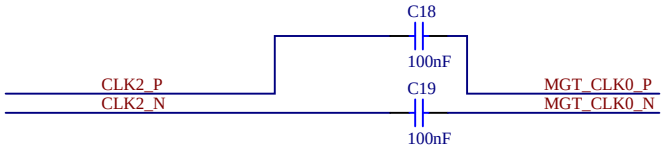


trenz electronic	Title: B16		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page6 of 17
Filename: B16.SchDoc			



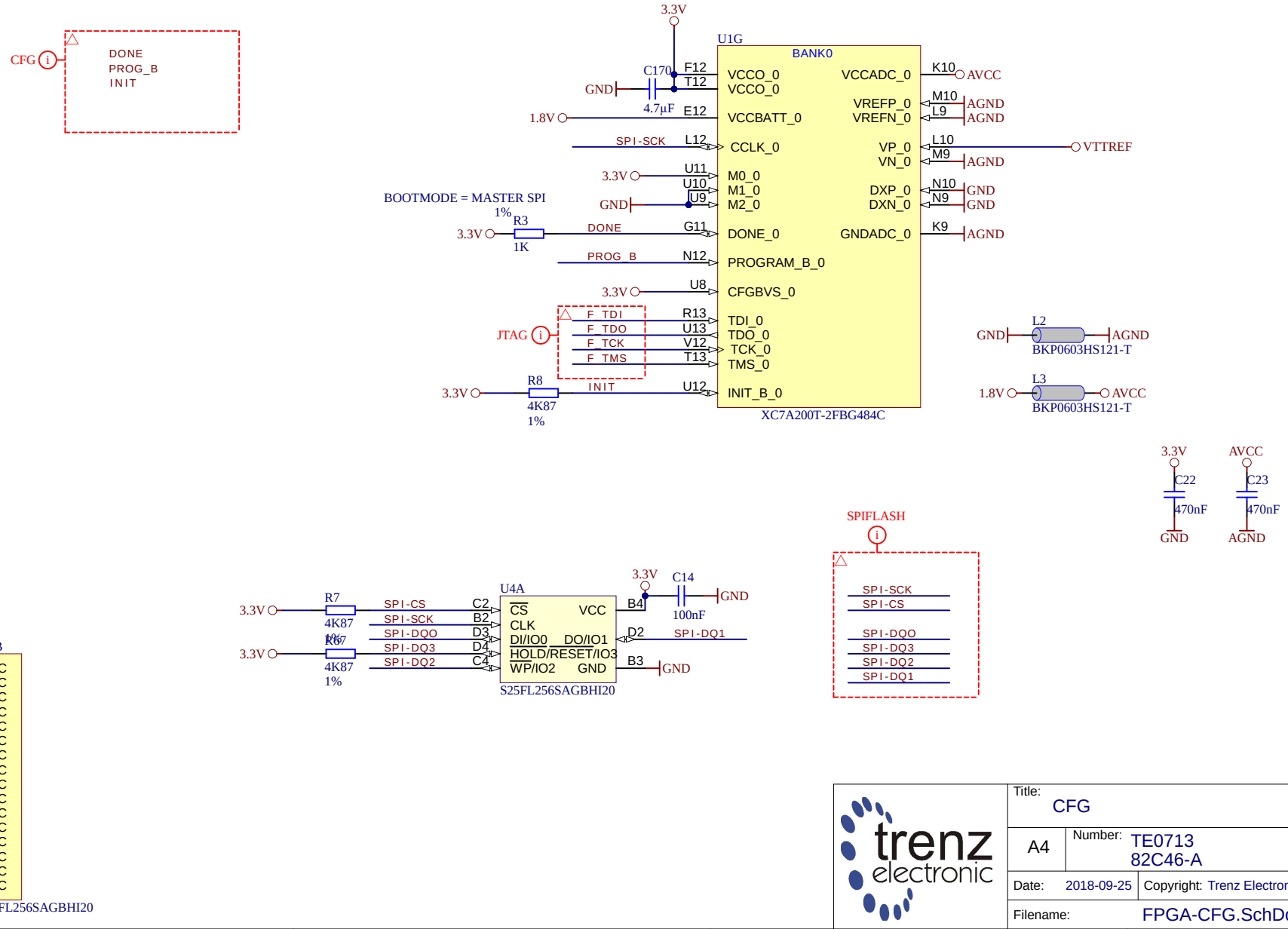
Title: B34			
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page7 of 17
Filename: B34.SchDoc			



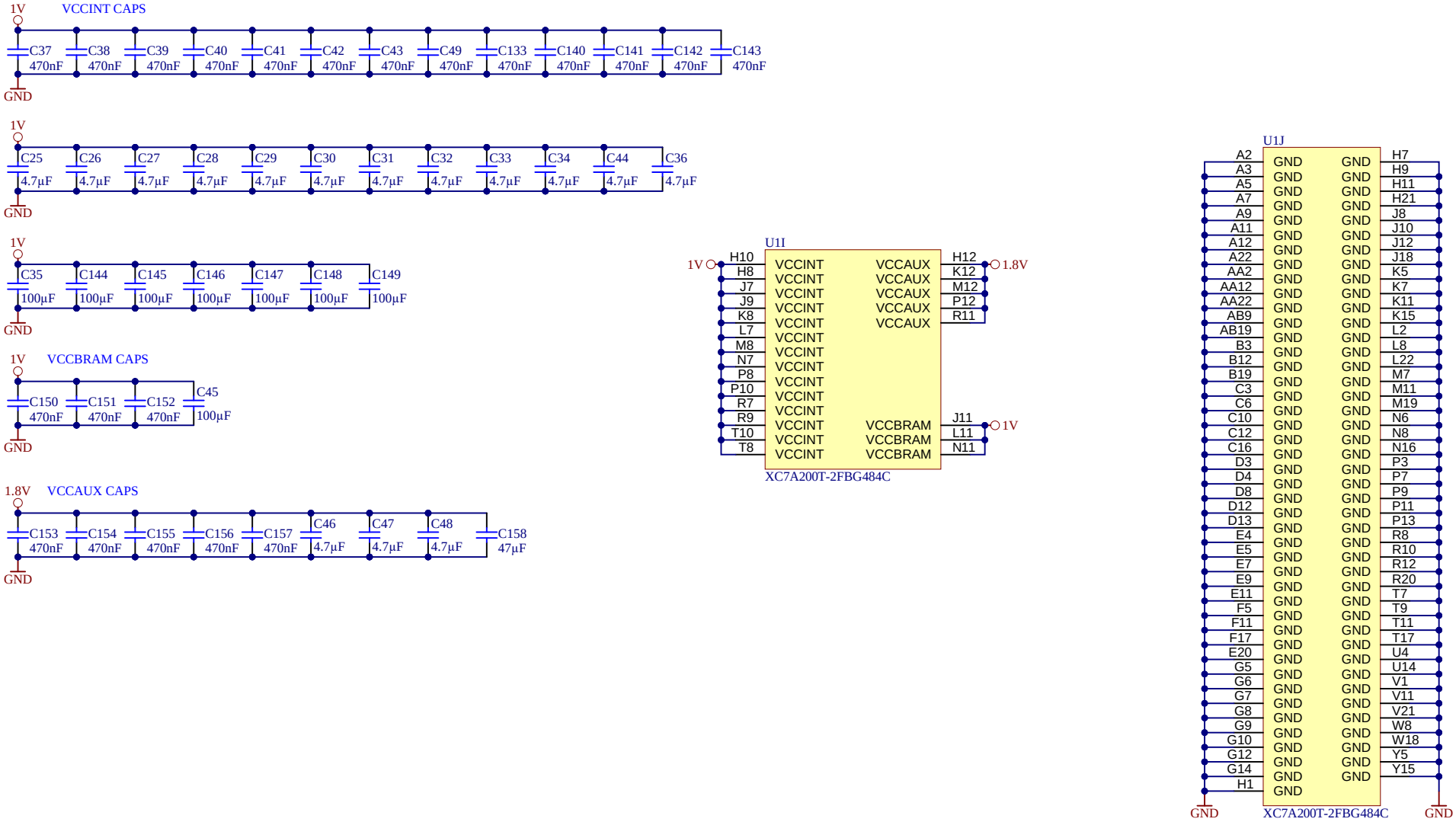


trenz electronic

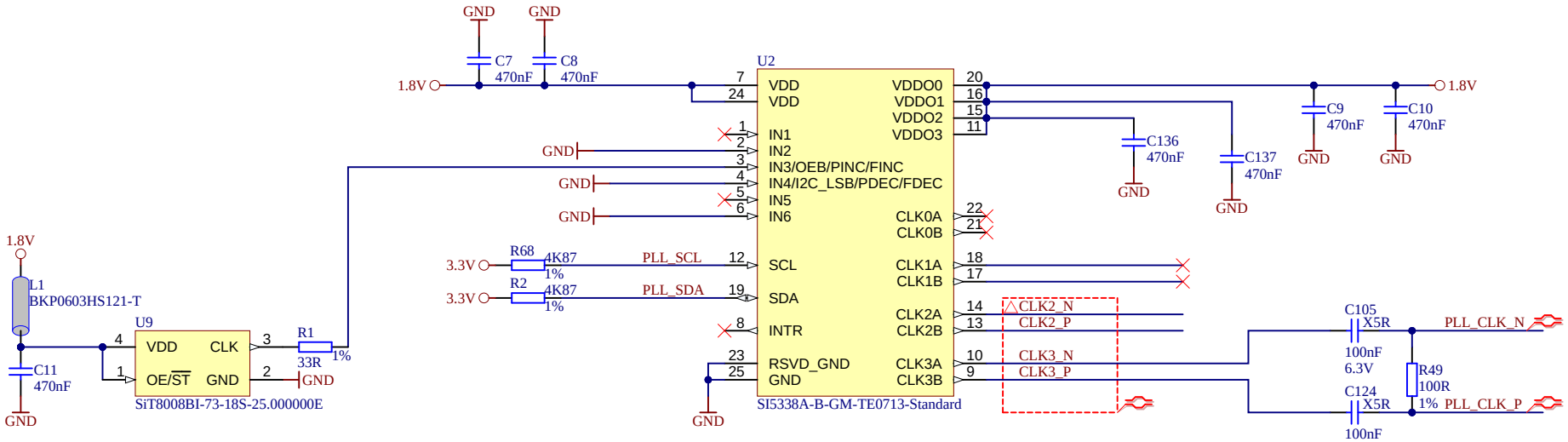
Title: MGT			
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page 8 of 17
Filename: FPGA-MGT.SchDoc			



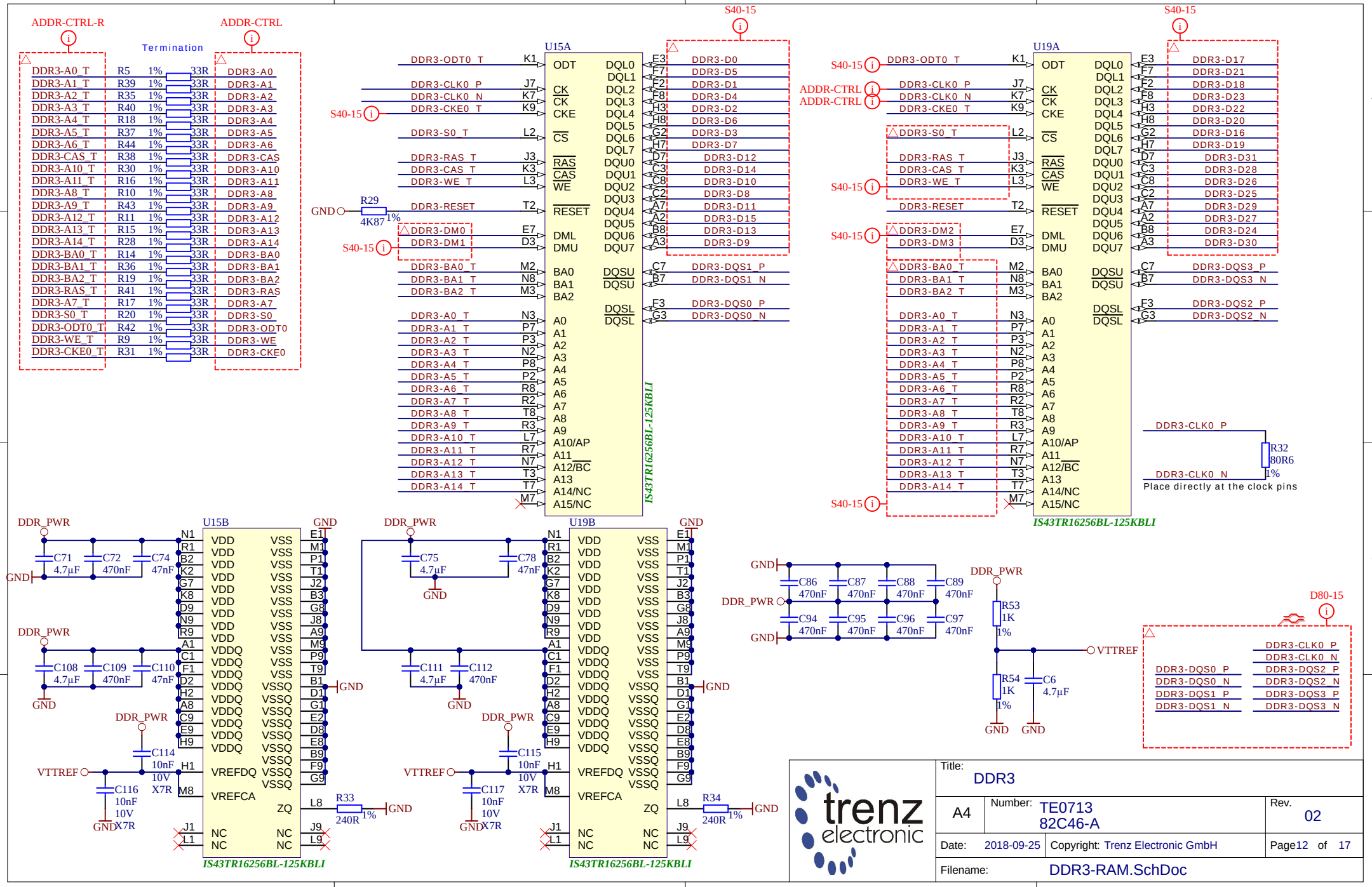
trenz electronic	Title: CFG		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page9 of 17
Filename: FPGA-CFG.SchDoc			

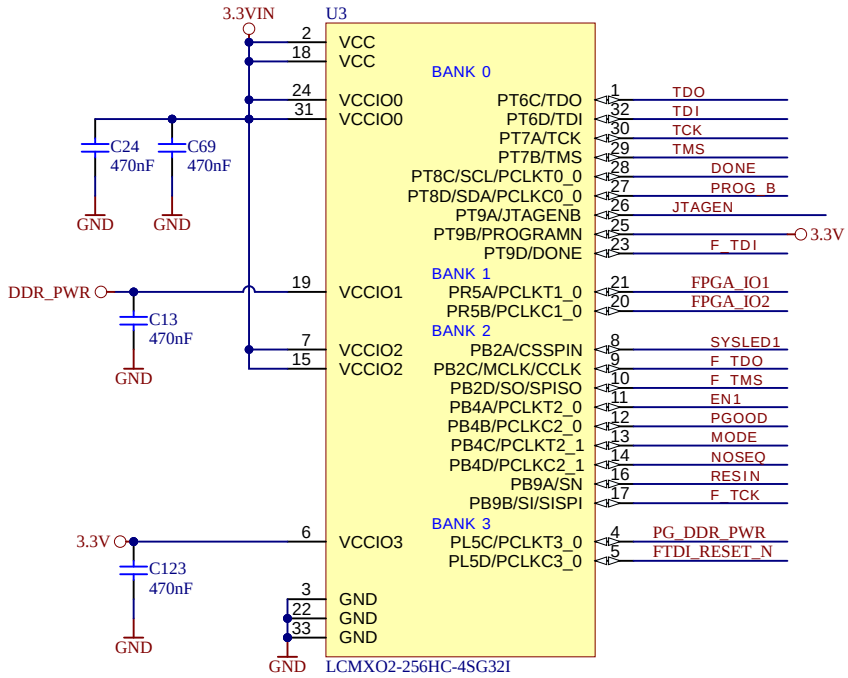


trenz electronic	Title: PWR		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page10 of 17
Filename: FPGA-PWR.SchDoc			

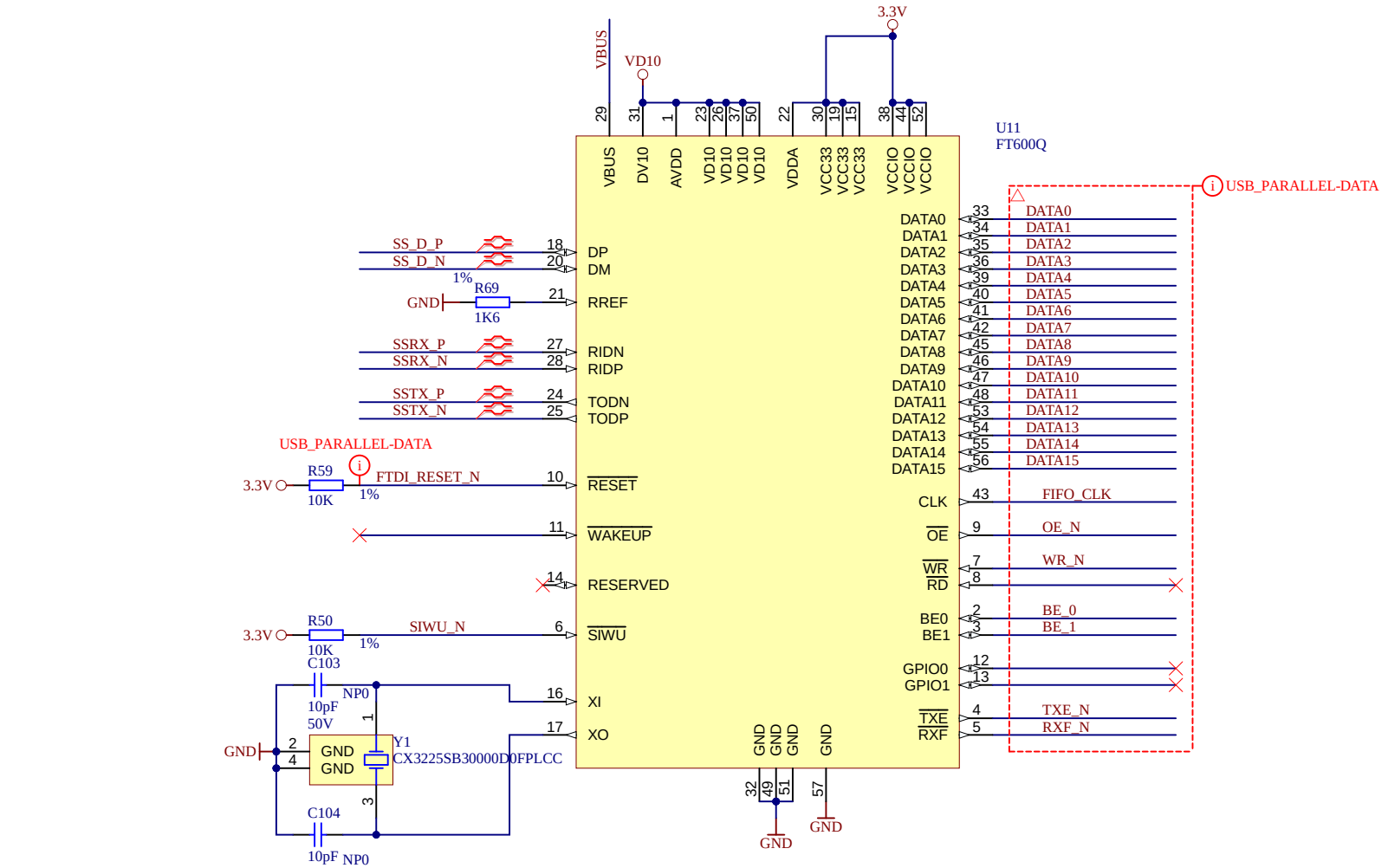


trenz electronic	Title: Clock		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page 11 of 17
Filename: Clock.SchDoc			

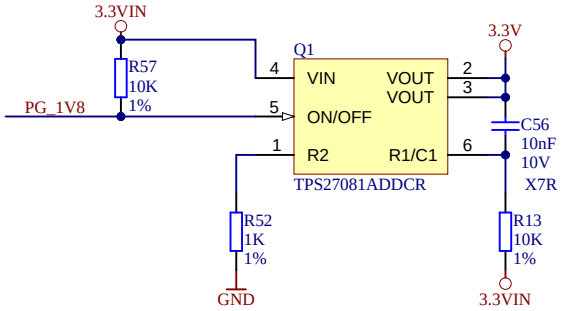

ADDR-CTRL-R
ADDR-CTRL
Termination
DDR3-A0_T R5 1% 33R DDR3-A0
DDR3-A1_T R39 1% 33R DDR3-A1
DDR3-A2_T R35 1% 33R DDR3-A2
DDR3-A3_T R40 1% 33R DDR3-A3
DDR3-A4_T R18 1% 33R DDR3-A4
DDR3-A5_T R37 1% 33R DDR3-A5
DDR3-A6_T R44 1% 33R DDR3-A6
DDR3-CAS_T R38 1% 33R DDR3-CAS
DDR3-A10_T R30 1% 33R DDR3-A10
DDR3-A11_T 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
S40-15
U15A
DDR3-ODT0_T
DDR3-CLK0_P
DDR3-CLK0_N
DDR3-CKE0_T
DDR3-S0_T
DDR3-RAS_T
DDR3-CAS_T
DDR3-WE_T
DDR3-RESET
DDR3-DM0
DDR3-DM1
DDR3-BA0_T
DDR3-BA1_T
DDR3-BA2_T
DDR3-A0_T
DDR3-A1_T
DDR3-A2_T
DDR3-A3_T
DDR3-A4_T
DDR3-A5_T
DDR3-A6_T
DDR3-A7_T
DDR3-A8_T
DDR3-A9_T
DDR3-A10_T
DDR3-A11_T
DDR3-A12_T
DDR3-A13_T
DDR3-A14_T
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
A15/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
IS43TR16256BL-125KBLI
U19A
ADDR-CTRL
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
R32
80R6
1%
Place directly at the clock pins
U15B
U19B
DDR_PWR
GND
VTTREF
VDD
VDDQ
VREFDQ
VREFCA
VSS
VSSQ
ZQ
NC
C71 4.7µF
C72 470nF
C74 47nF
C108 4.7µF
C109 470nF
C110 47nF
C114 10nF 10V X7R
C116 10nF 10V X7R
C75 4.7µF
C78 47nF
C111 4.7µF
C112 470nF
C115 10nF 10V X7R
C117 10nF 10V X7R
R33 240R 1%
R34 240R 1%
C86 470nF
C87 470nF
C88 470nF
C89 470nF
C94 470nF
C95 470nF
C96 470nF
C97 470nF
R53 1K 1%
R54 1K 1%
C6 4.7µF
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: TE0713 82C46-A
Rev. 02
Date: 2018-09-25
Copyright: Trenz Electronic GmbH
Page12 of 17
Filename: DDR3-RAM.SchDoc

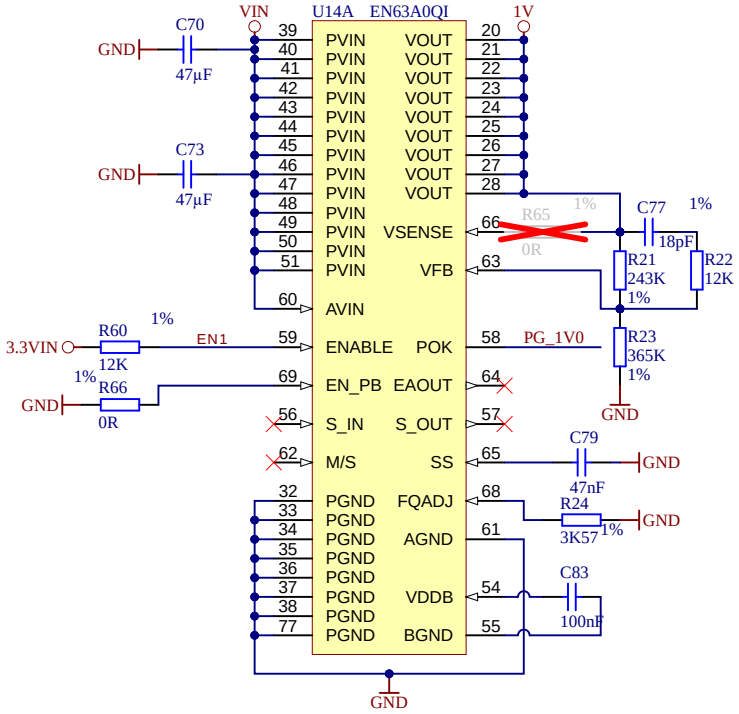


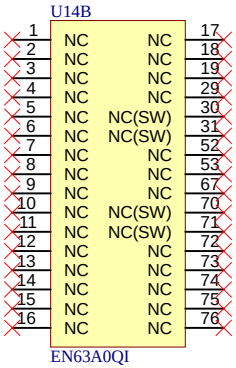
trenz electronic	Title: CPLD		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page13 of 17
Filename: CPLD.SchDoc			



	Title: TE0713 - FTDI USB		
A4	Number: TE0713 82C46-A		Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH		Page 14 of 17
Filename: USB.SchDoc			





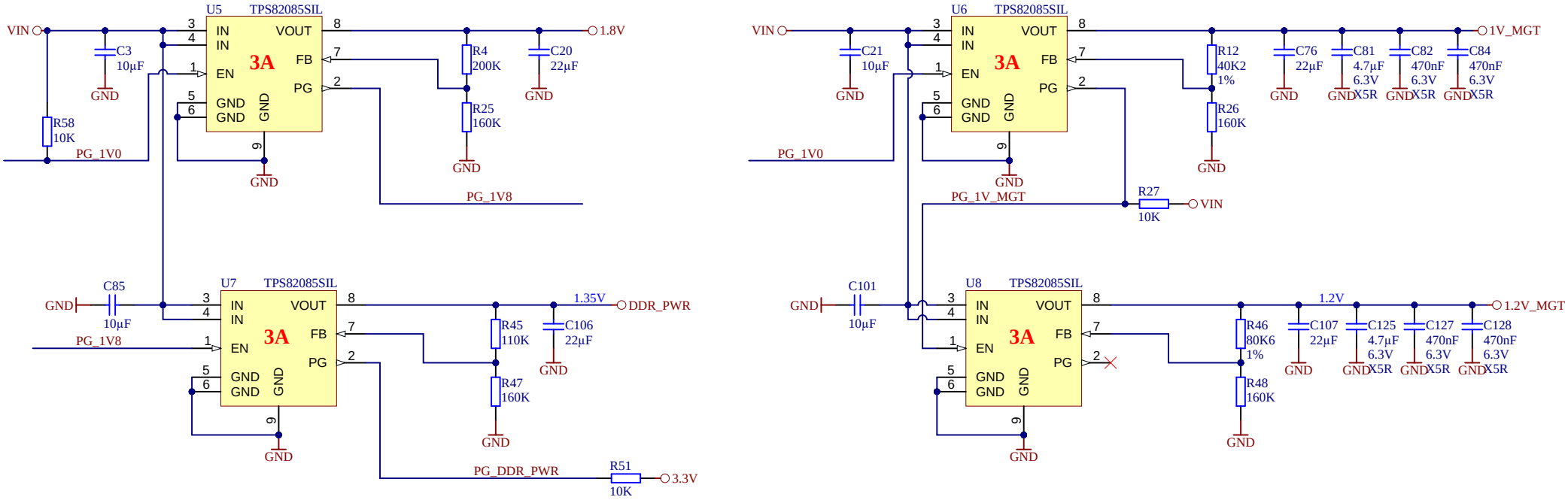



```
R65 R66 MODE EN63A0QI
-------------------------------------
OK   X      |  enable pre-bias start-up
X    OK     |  disable pre-bias start-up
```

VIN	TP1	Testpoint 0.8mm	1V	TP2	Testpoint 0.8mm	GND	TP6	Testpoint 0.8mm
3.3VIN	TP4	Testpoint 0.8mm	1.2V_MGT	TP5	Testpoint 0.8mm	GND	TP9	Testpoint 0.8mm
3.3V	TP7	Testpoint 0.8mm	VCCIO13	TP8	Testpoint 0.8mm	GND	TP12	Testpoint 0.8mm
1.8V	TP10	Testpoint 0.8mm	VCCIO15	TP11	Testpoint 0.8mm	GND	TP15	Testpoint 0.8mm
DDR_PWR	TP13	Testpoint 0.8mm	VCCIO16	TP14	Testpoint 0.8mm	GND	TP16	Testpoint 0.8mm
VTTREF	TP3	Testpoint 0.8mm						

trenz electronic

Title: PWR		
A4	Number: TE0713 82C46-A	Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH	Page15 of 17
Filename: PWR1.SchDoc		



trenz electronic

Title: PWR		
A4	Number: TE0713 82C46-A	Rev. 02
Date: 2018-09-25	Copyright: Trenz Electronic GmbH	Page 16 of 17
Filename: PWR2.SchDoc		

Changes REV 02:

1. Added pull-up resistor R57 (10k) to PG_1V8
2. Added pull-up resistor R58 (10k) to PG_1V0
3. Added pull-up resistor R59 (10k) to FTDI_RESET_N
4. Changed NRND component Q1 TPS27082LDDCR -> TPS27081ADDCR
5. Removed 100R resistors (R52,R56)
6. Full upd LIB

trenz electronic	Title: TE0714		
	A4	Number: TE0713 82C46-A	Rev. 02
	Date: 2018-09-25	Copyright: Trenz Electronic GmbH / TT	Page 17 of 17
	Filename: Revision Changes.SchDoc		