U_DDR3-RAM
DDR3-RAM.SchDoc

U_Ethernet
Ethernet.SchDoc

U_SOC
SOC.SchDoc

U_CPLD
CPLD.SchDoc

U_POWER2
POWER2.SchDoc

U_HyperFlash_RAM
HyperFlash_RAM.SchDoc

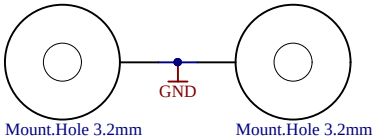
U_Clock
Clock.SchDoc

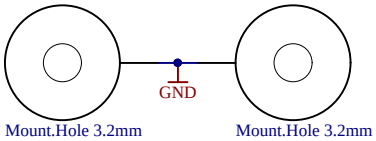
U_eMMC
eMMC.SchDoc

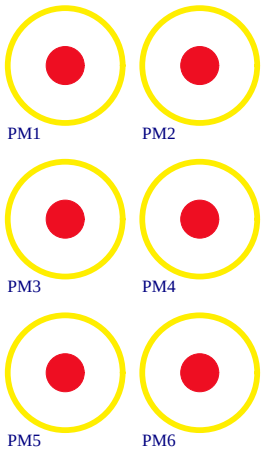
U_Connectors
Connectors.SchDoc

U_POWER
POWER.SchDoc

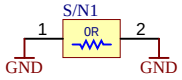
LOGO1
TE Logo PRINT Layer
LOGO PRINT







Serial
Serial
Serialnumber 6,3 x 6.3mm



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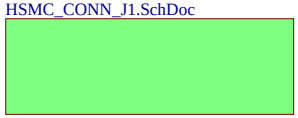
Title: TE0784 - Overview			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page1 of 30
Filename: TE0784.SchDoc			

U_HSMC_CONN_J1
HSMC_CONN_J1.SchDoc



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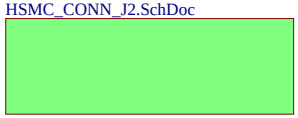
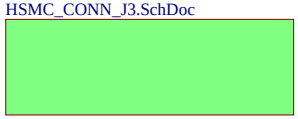
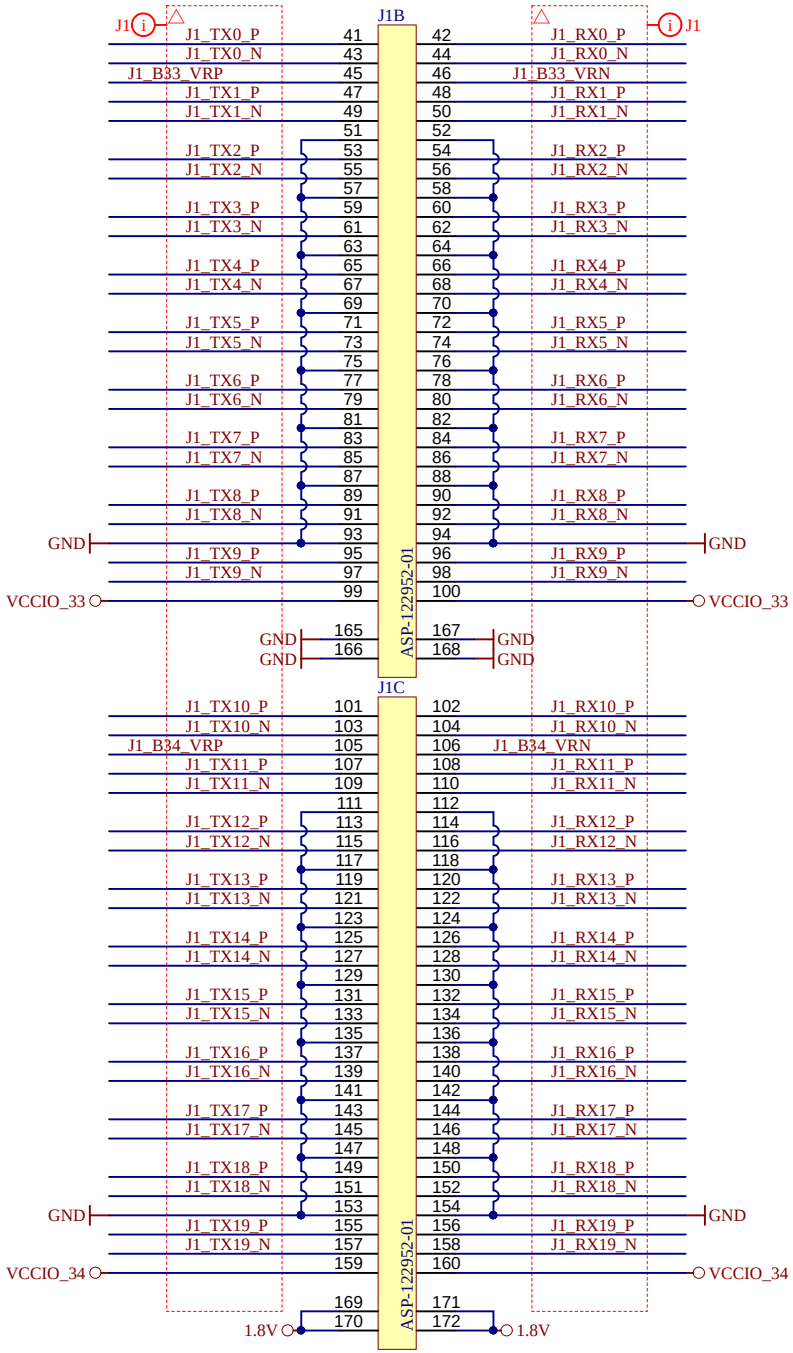
HSMC_CONN_J2.SchDoc

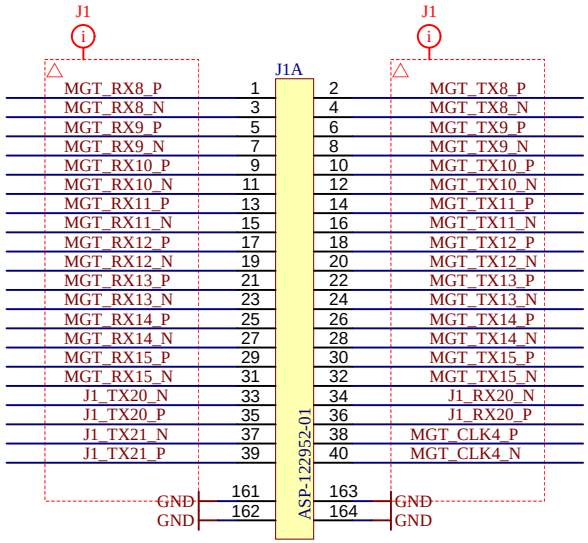


U_HSMC_CONN_J3
HSMC_CONN_J3.SchDoc



trenz electronic	Title: TE0784 - Connectors		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page2 of 30
Filename: Connectors.SchDoc			





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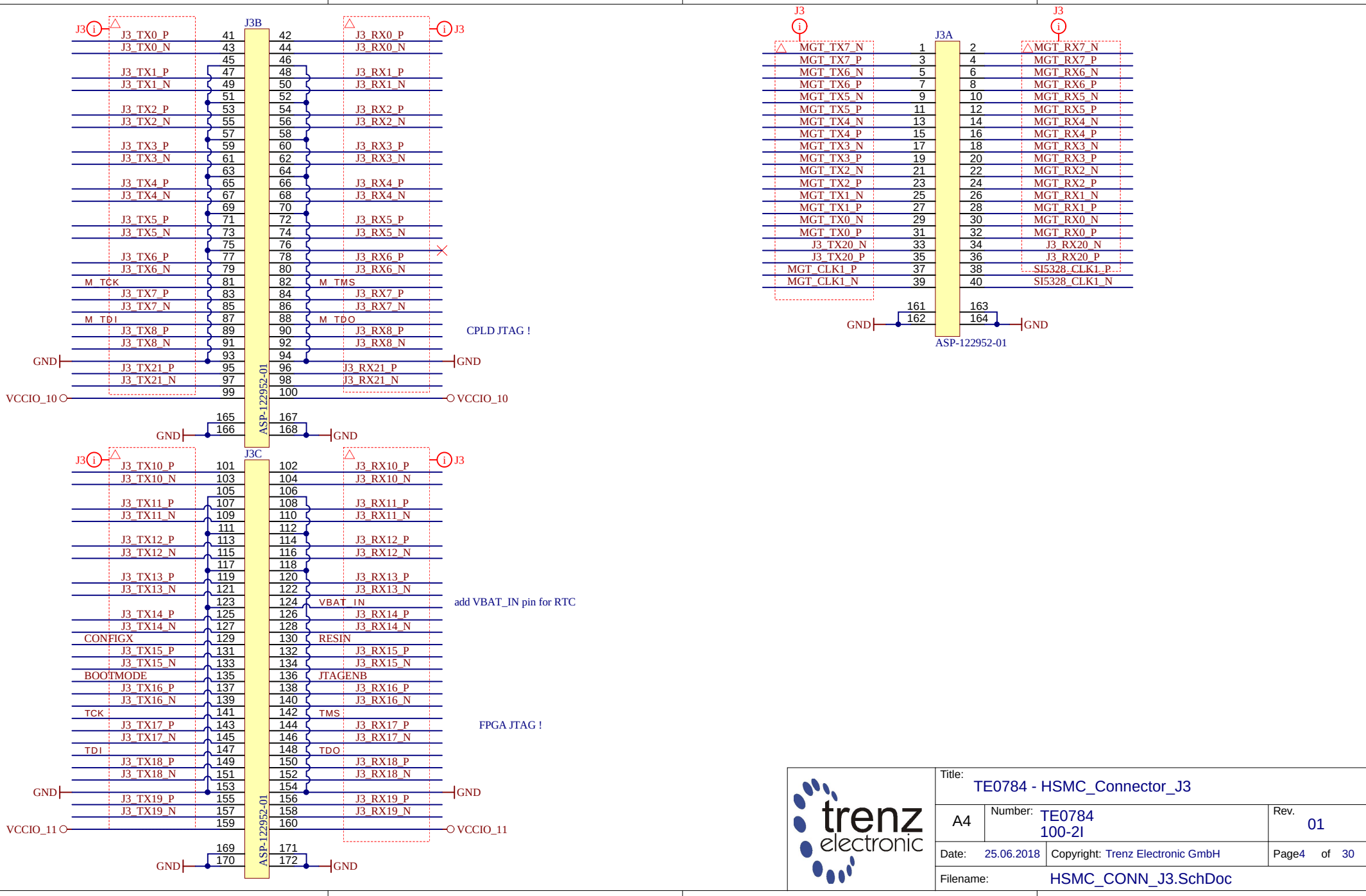
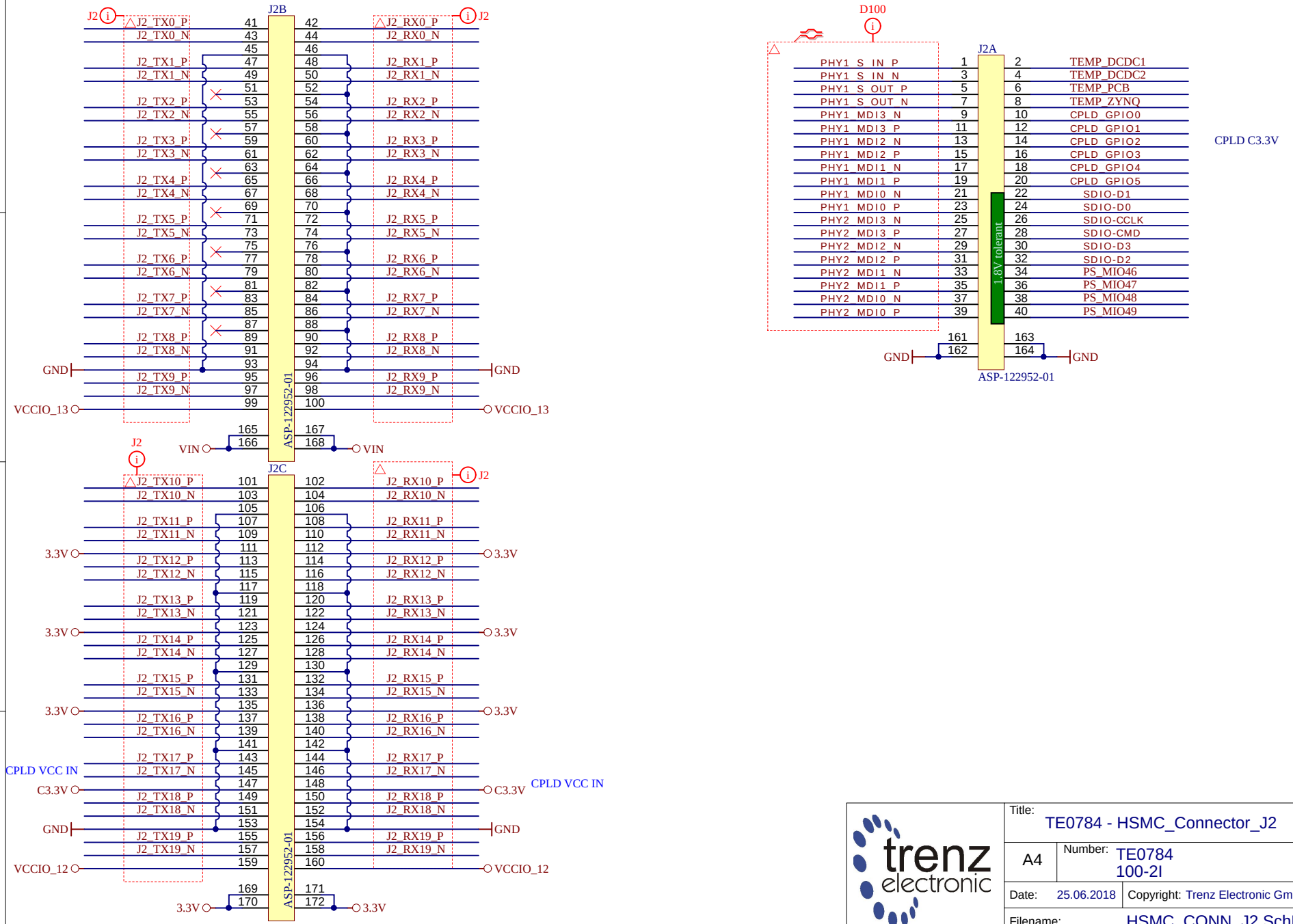
Title: TE0784 - HSMC_Connector_J1			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page3 of 30
Filename: HSMC_CONN_J1.SchDoc			



Title: TE0784 - HSMC_Connector_J3			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page4 of 30
Filename: HSMC_CONN_J3.SchDoc			



Title: TE0784 - HSMC_Connector_J2			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page5 of 30
Filename: HSMC_CONN_J2.SchDoc			

U_PS-DDR
PS-DDR.SchDoc

U_MIO-BANKS
MIO-BANKS.SchDoc

U_HP-BANKS
HP-BANKS.SchDoc

U_FPGA-MGT
FPGA-MGT.SchDoc

U_FPGA-CFG
FPGA-CFG.SchDoc

U_FPGA-PWR
FPGA-PWR.SchDoc

U_B9
B9.SchDoc

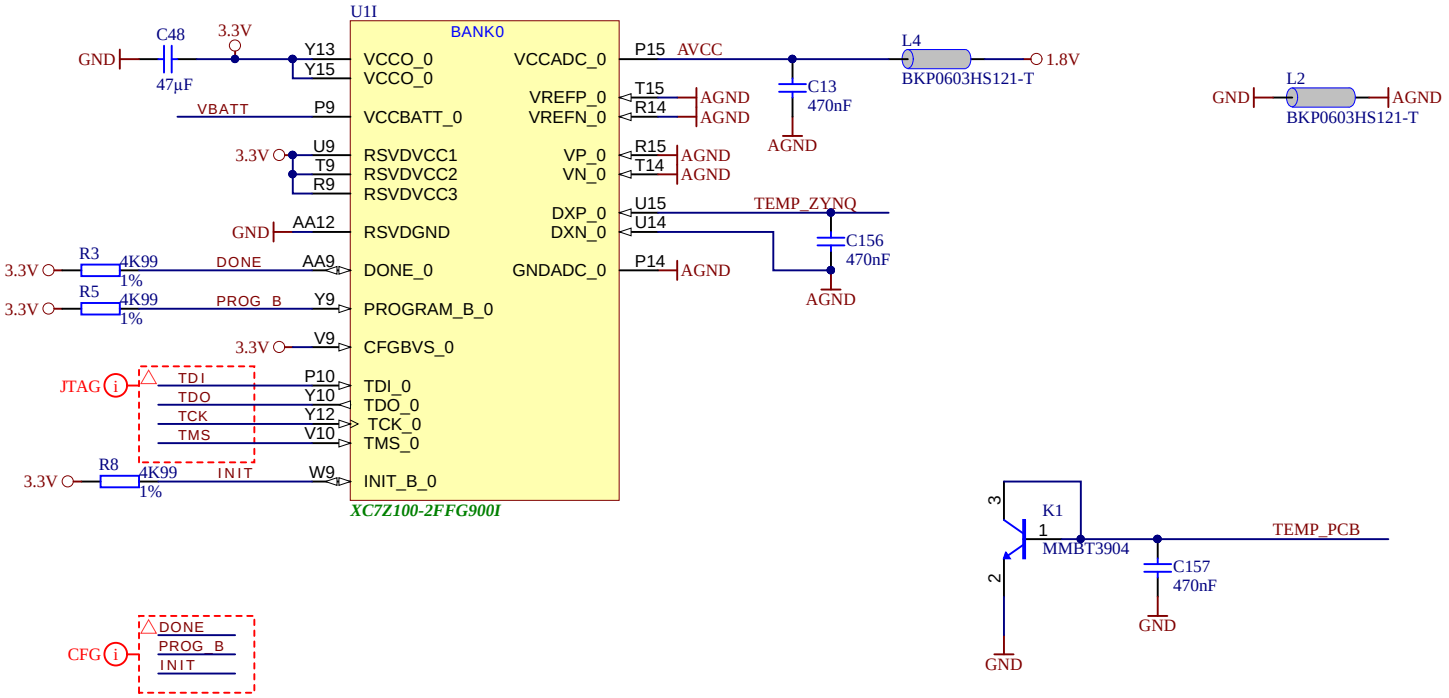
U_B10
B10.SchDoc

U_B11
B11.SchDoc

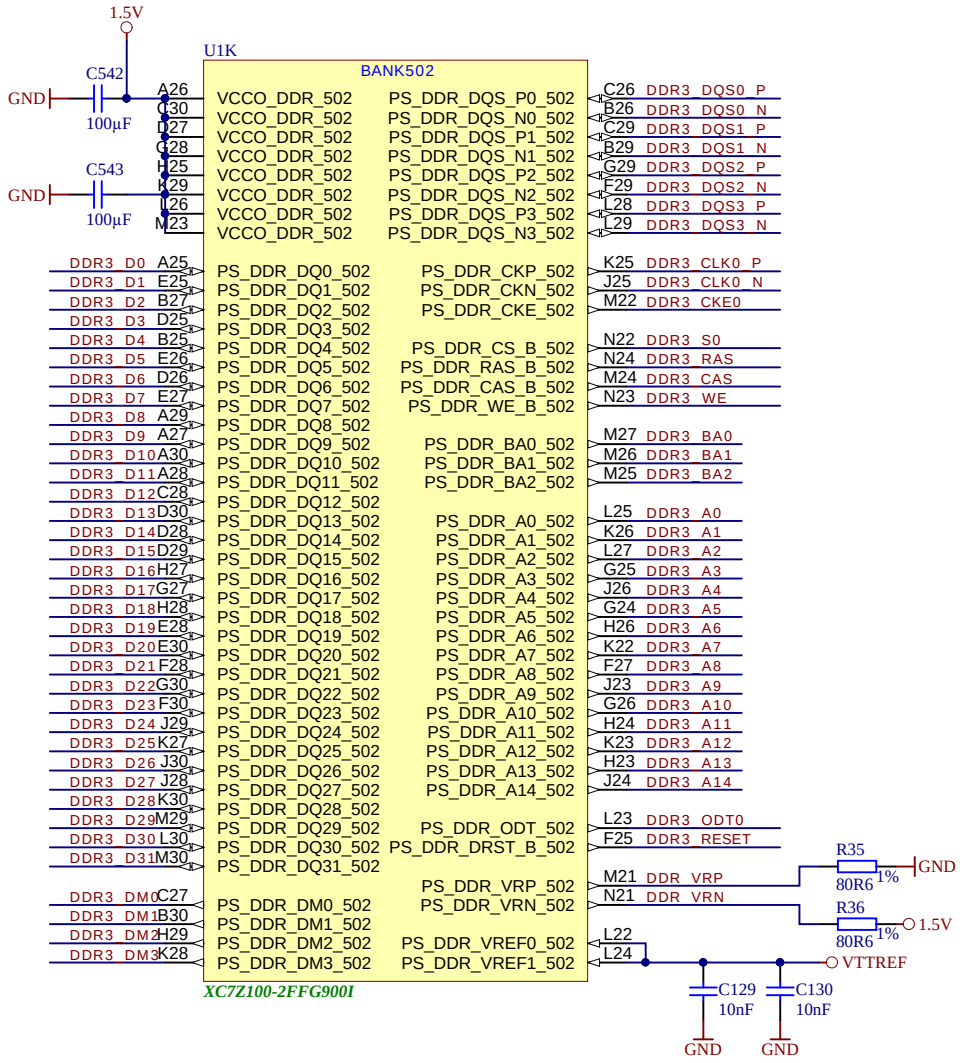
U_B12
B12.SchDoc

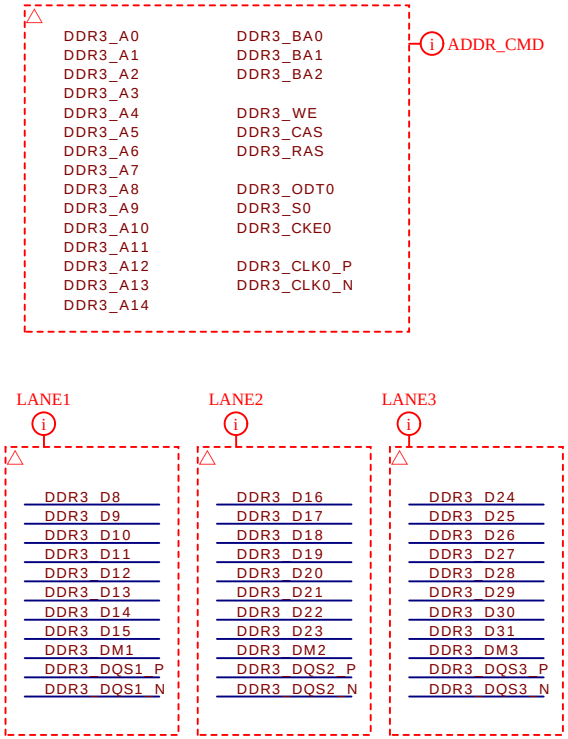
U_B13
B13.SchDoc

trenz electronic	Title: TE0784 - SOC		
	A4	Number: TE0784 100-2I	Rev. 01
	Date: 25.06.2018	Copyright: Trenz Electronic GmbH	Page6 of 30
	Filename: SOC.SchDoc		



trenz electronic	Title: TE0784 - FPGA Configuration		
A4	Nummer: TE0784 100-2I		Rev. 01
Datum: 25.06.2018	Zeichner: Trenz Electronic GmbH		Blatt 7 von 30
Filename: FPGA-CFG.SchDoc			





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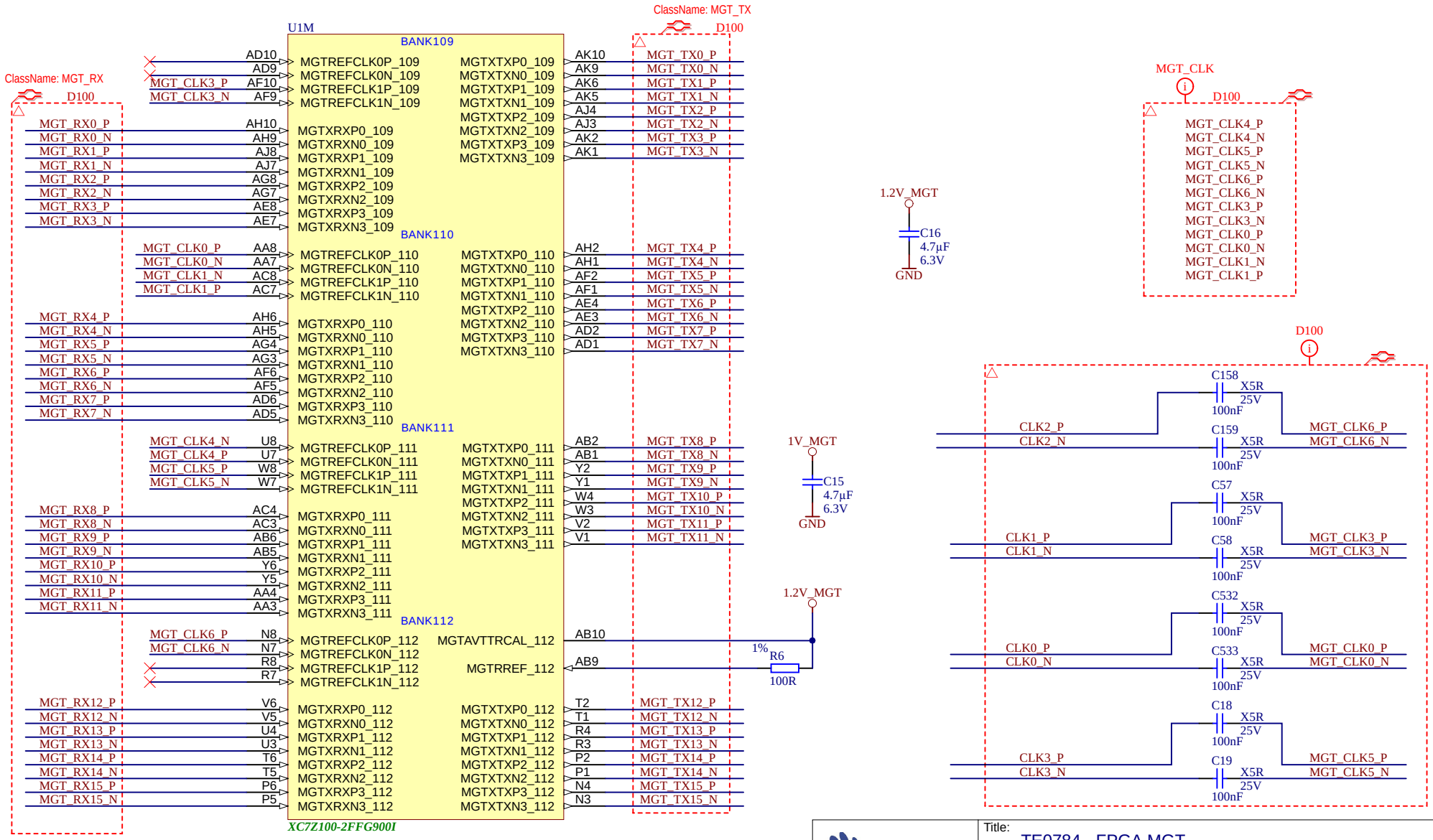
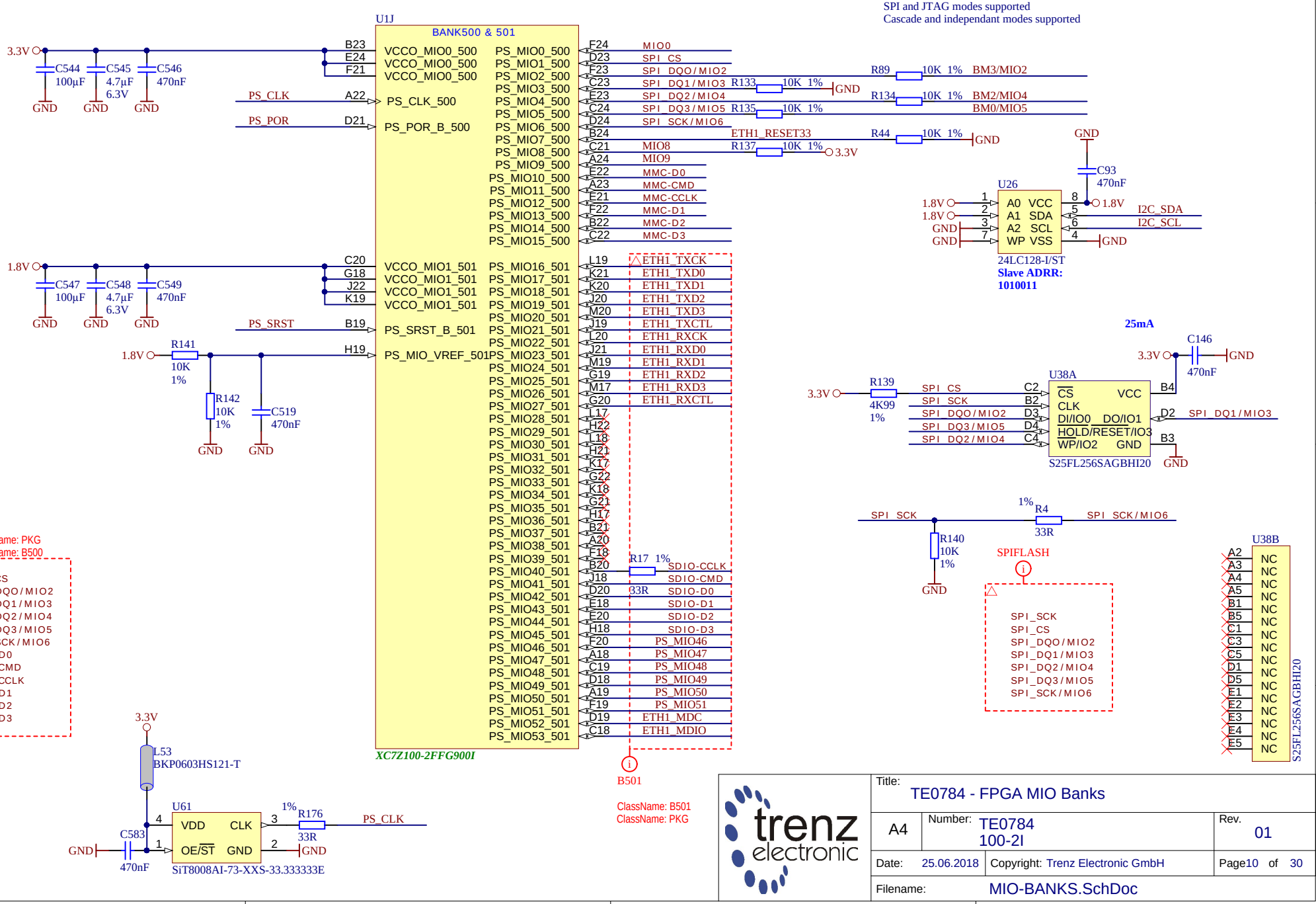
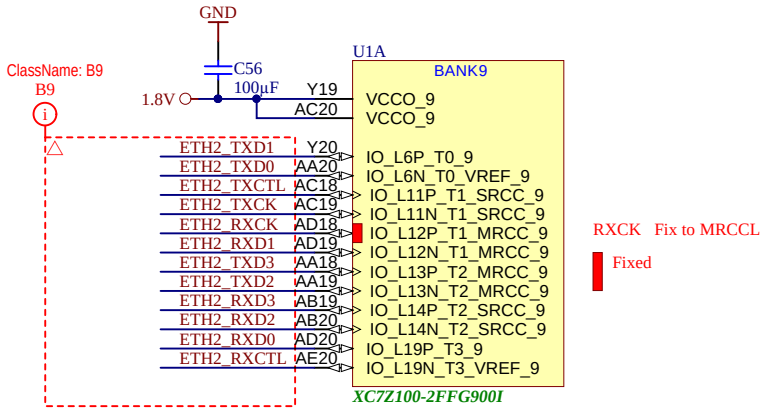
Title: TE0784 - FPGA DDR Banks			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page8 of 30
Filename: PS-DDR.SchDoc			



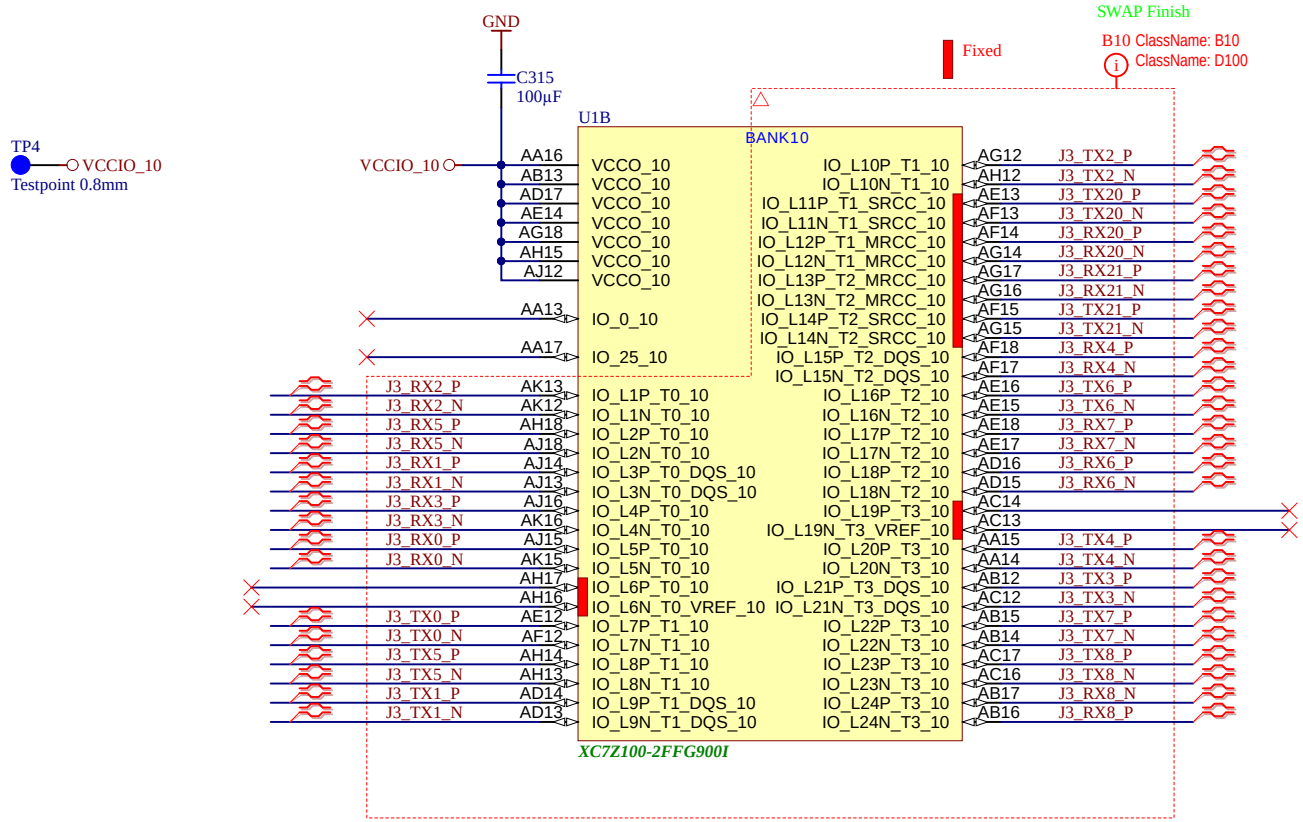
Title: TE0784 - FPGA MGT			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page9 of 30
Filename: FPGA-MGT.SchDoc			



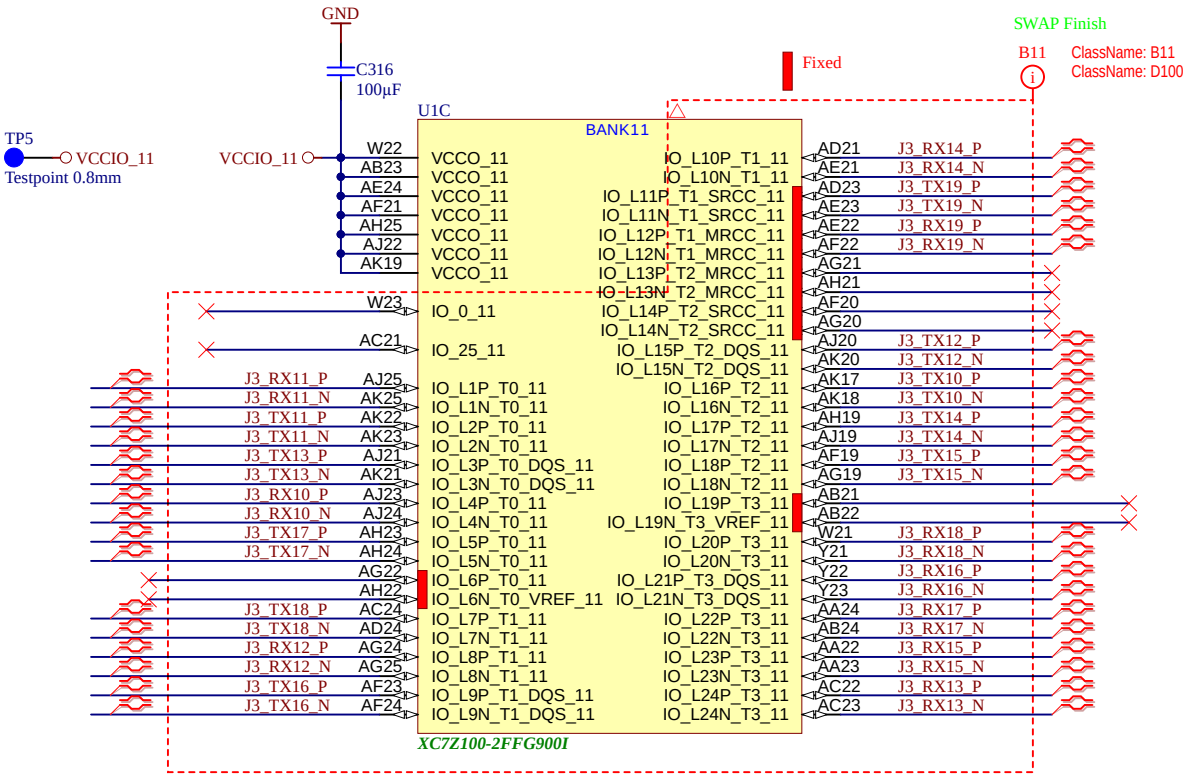
Title: TE0784 - FPGA MIO Banks			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page10 of 30
Filename: MIO-BANKS.SchDoc			



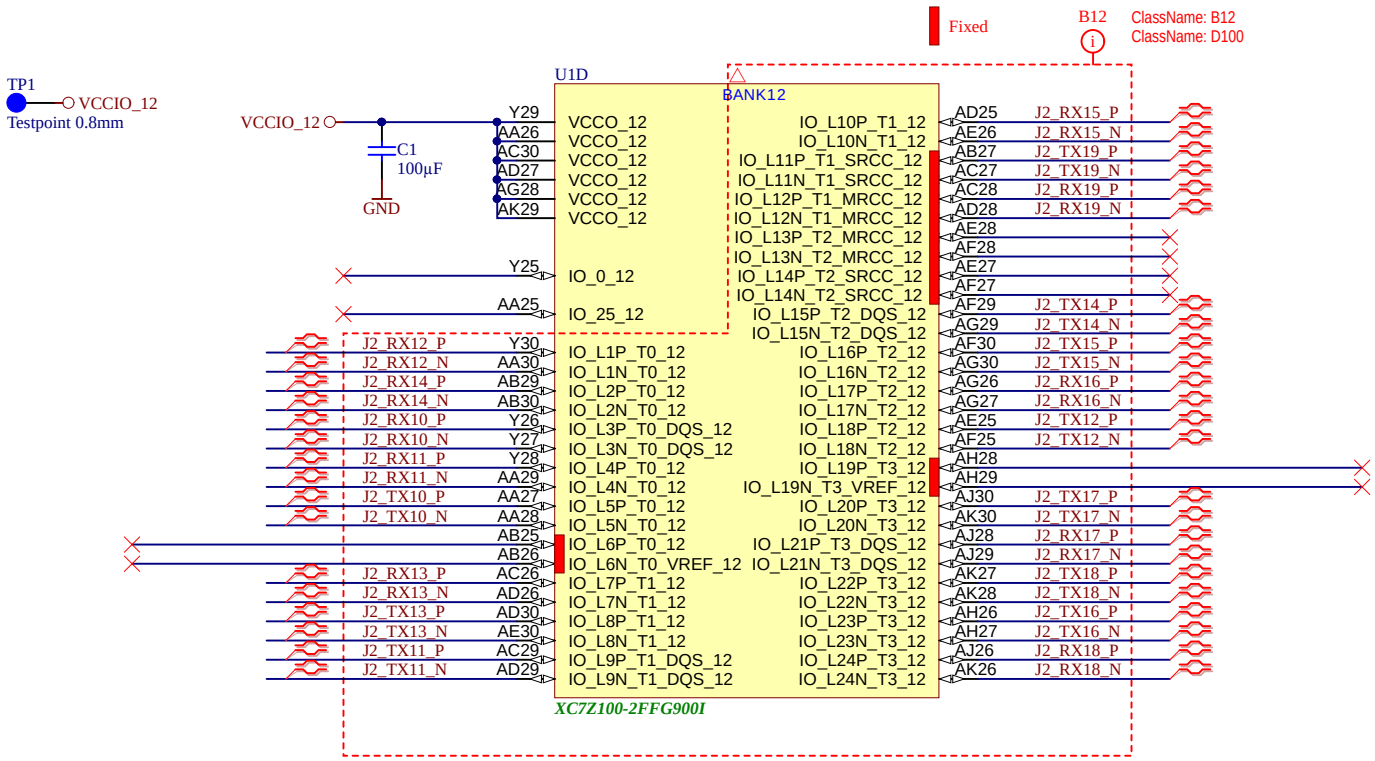
trenz electronic	Title: TE0784 - FPGA B9		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page11 of 30
Filename: B9.SchDoc			



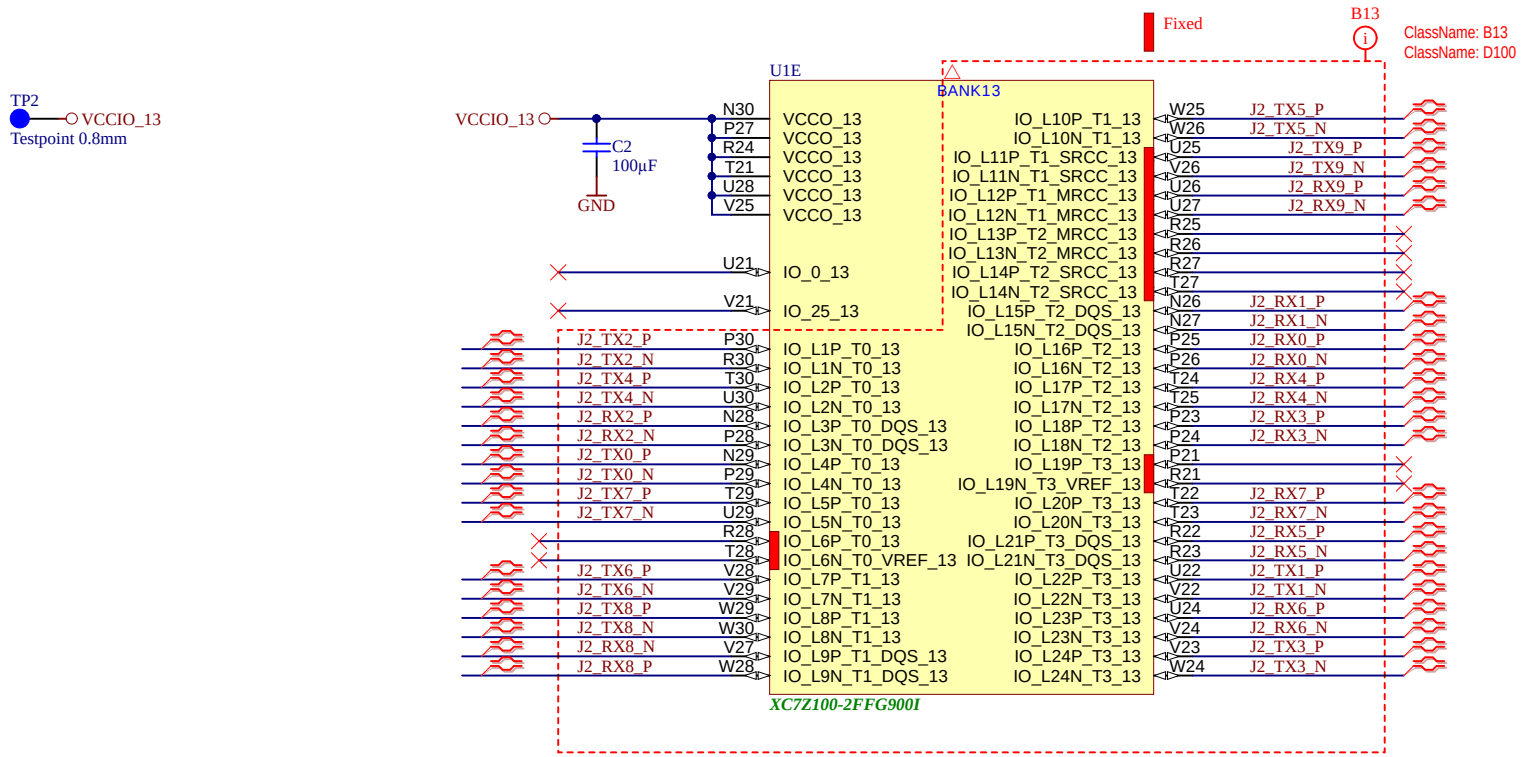
Title: TE0784 - FPGA B10			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page12 of 30
Filename: B10.SchDoc			



trenz electronic	Title: TE0784 - FPGA B11		
	A4	Number: TE0784 100-2I	Rev. 01
	Date: 25.06.2018	Copyright: Trenz Electronic GmbH	Page13 of 30
	Filename: B11.SchDoc		



Title: TE0784 - FPGA B12			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page14 of 30
Filename: B12.SchDoc			



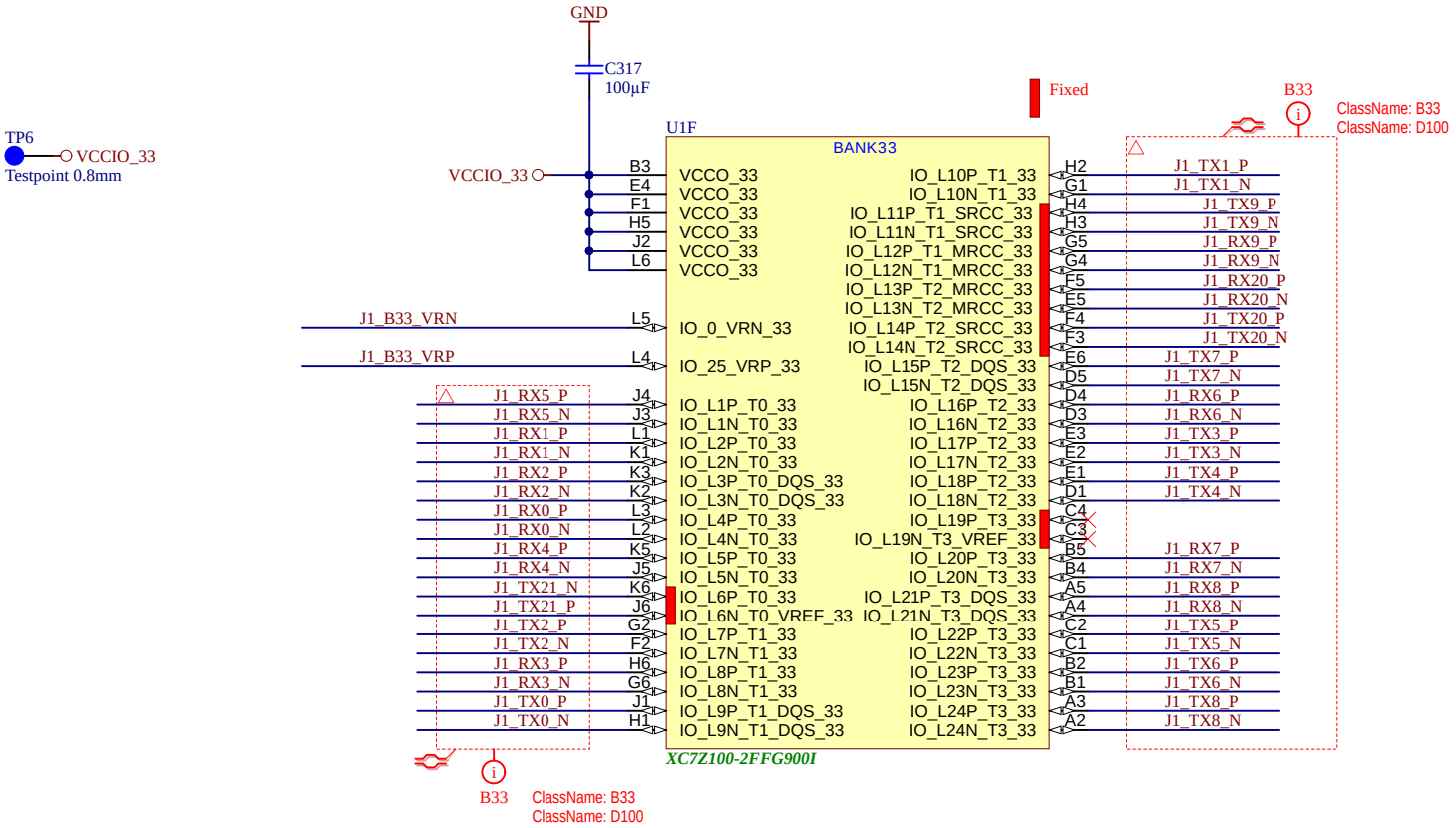
trenz electronic	Title: TE0784 - FPGA B13		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page15 of 30
Filename: B13.SchDoc			

U_B33
B33.SchDoc

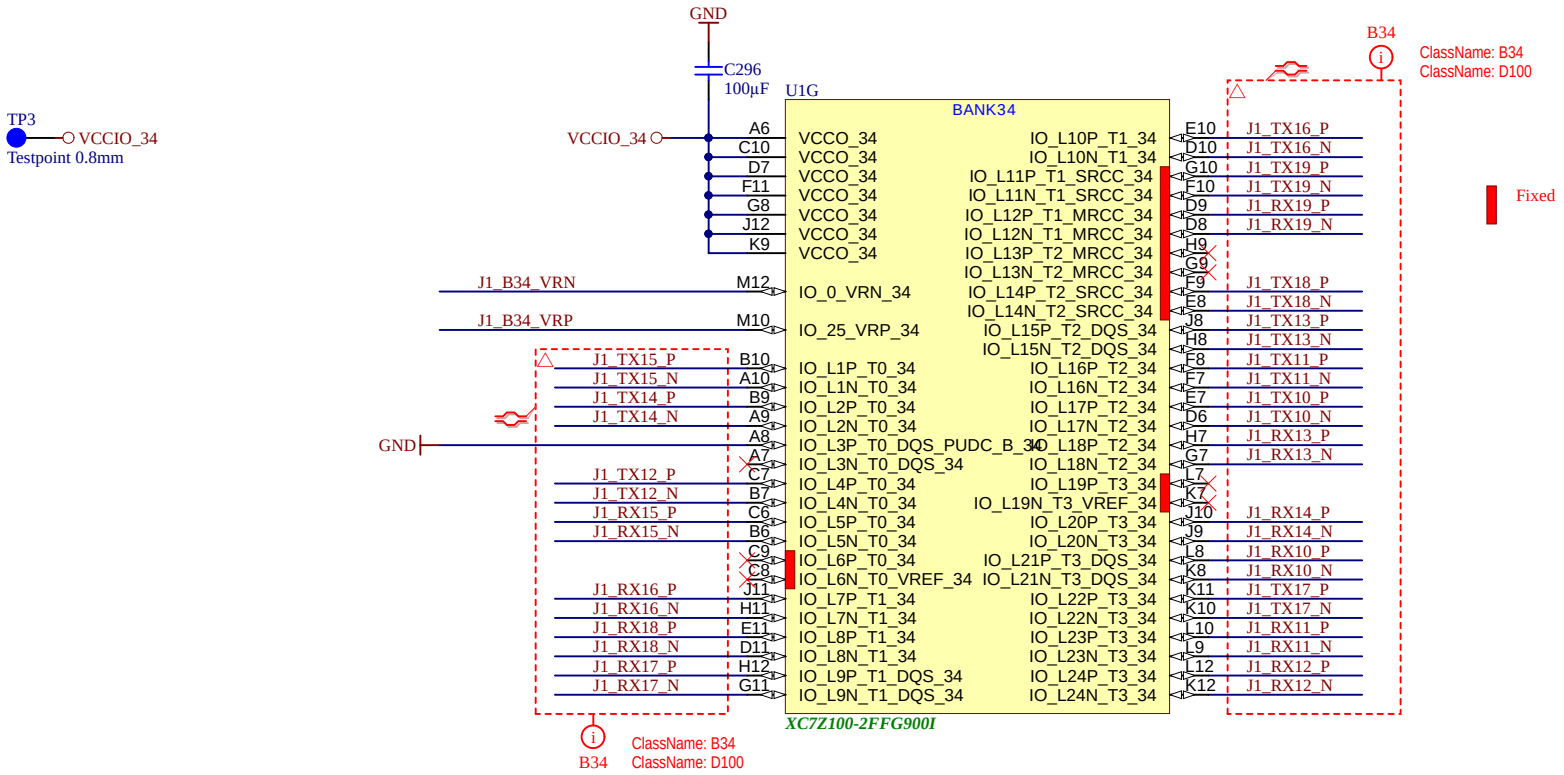
U_B34
B34.SchDoc

U_B35
B35.SchDoc

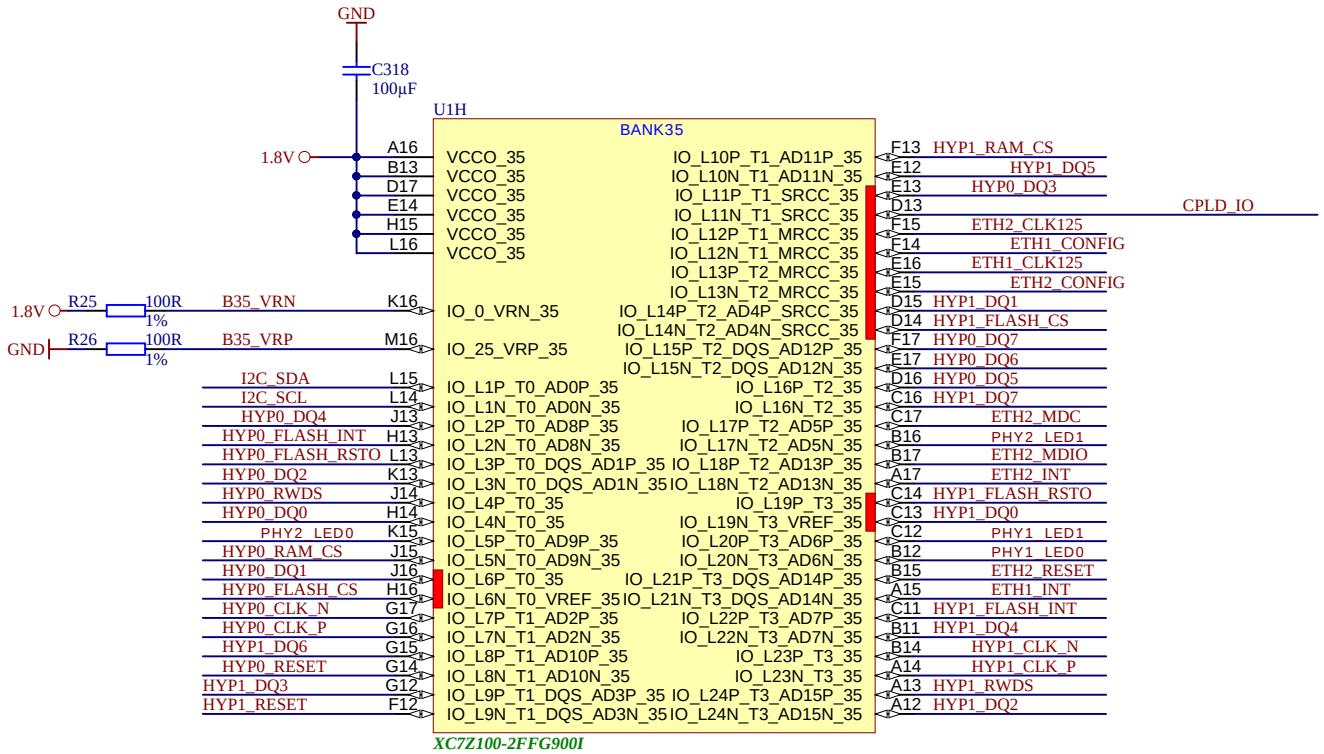
Title: TE0784 - FPGA HP Banks			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page16 of 30
Filename: HP-BANKS.SchDoc			



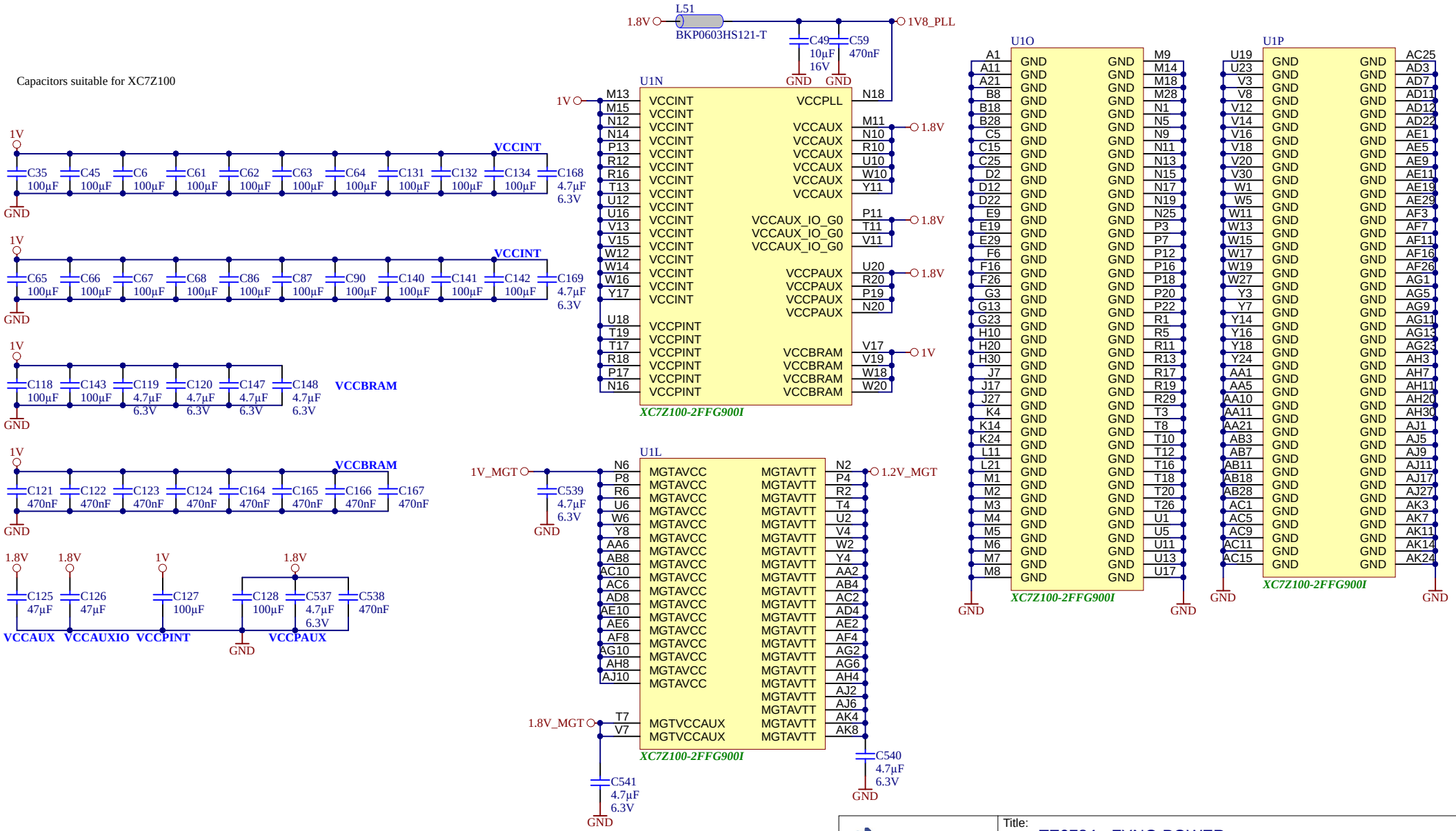
trenz electronic	Title: TE0784 - FPGA B33		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page17 of 30
Filename: B33.SchDoc			



trenz electronic	Title: TE0784 - FPGA B34		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page18 of 30
Filename: B34.SchDoc			



trenz electronic	Title: TE0784 - FPGA B35		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page19 of 30
Filename: B35.SchDoc			



Title: TE0784 - ZYNQ POWER		
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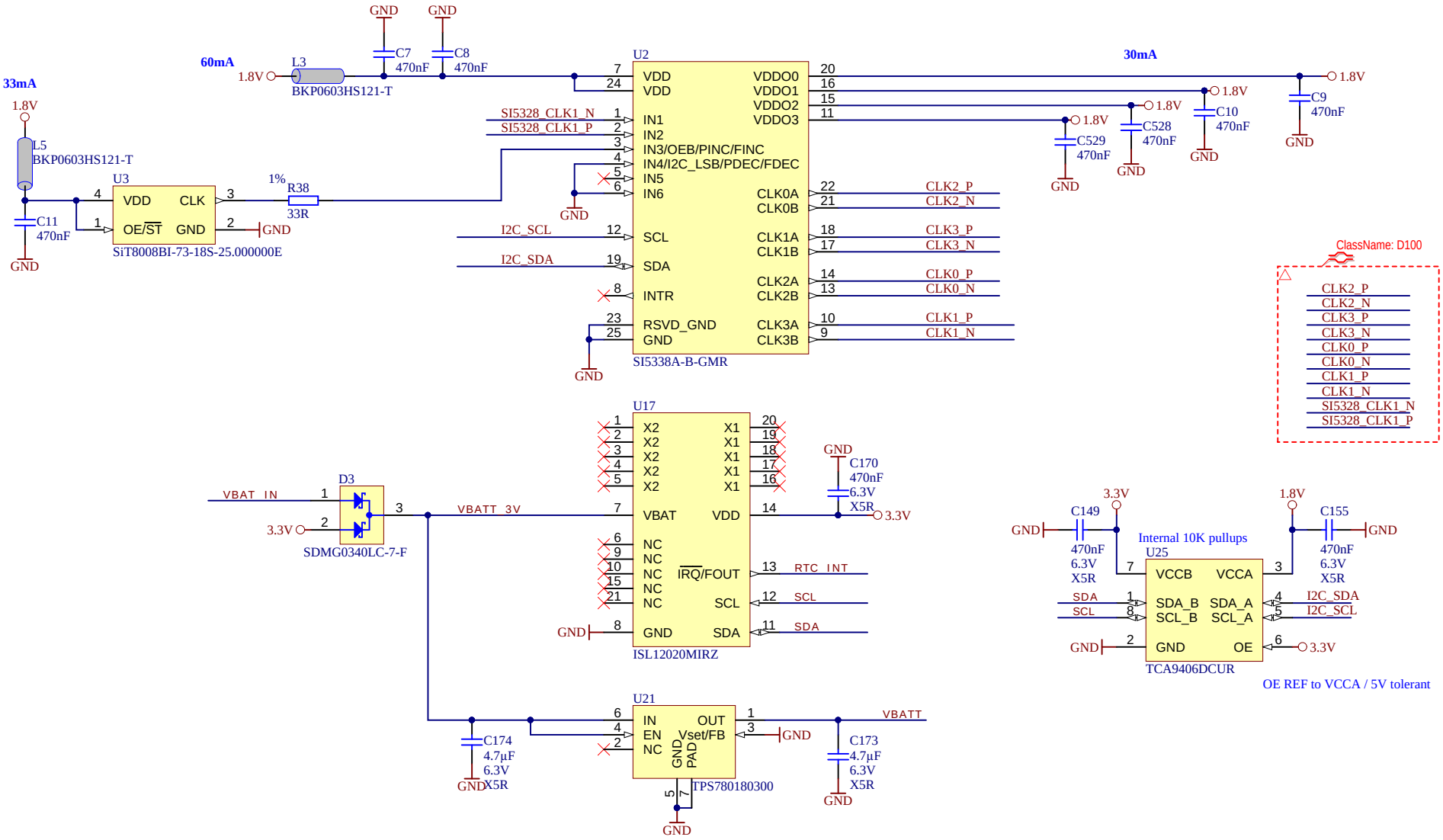
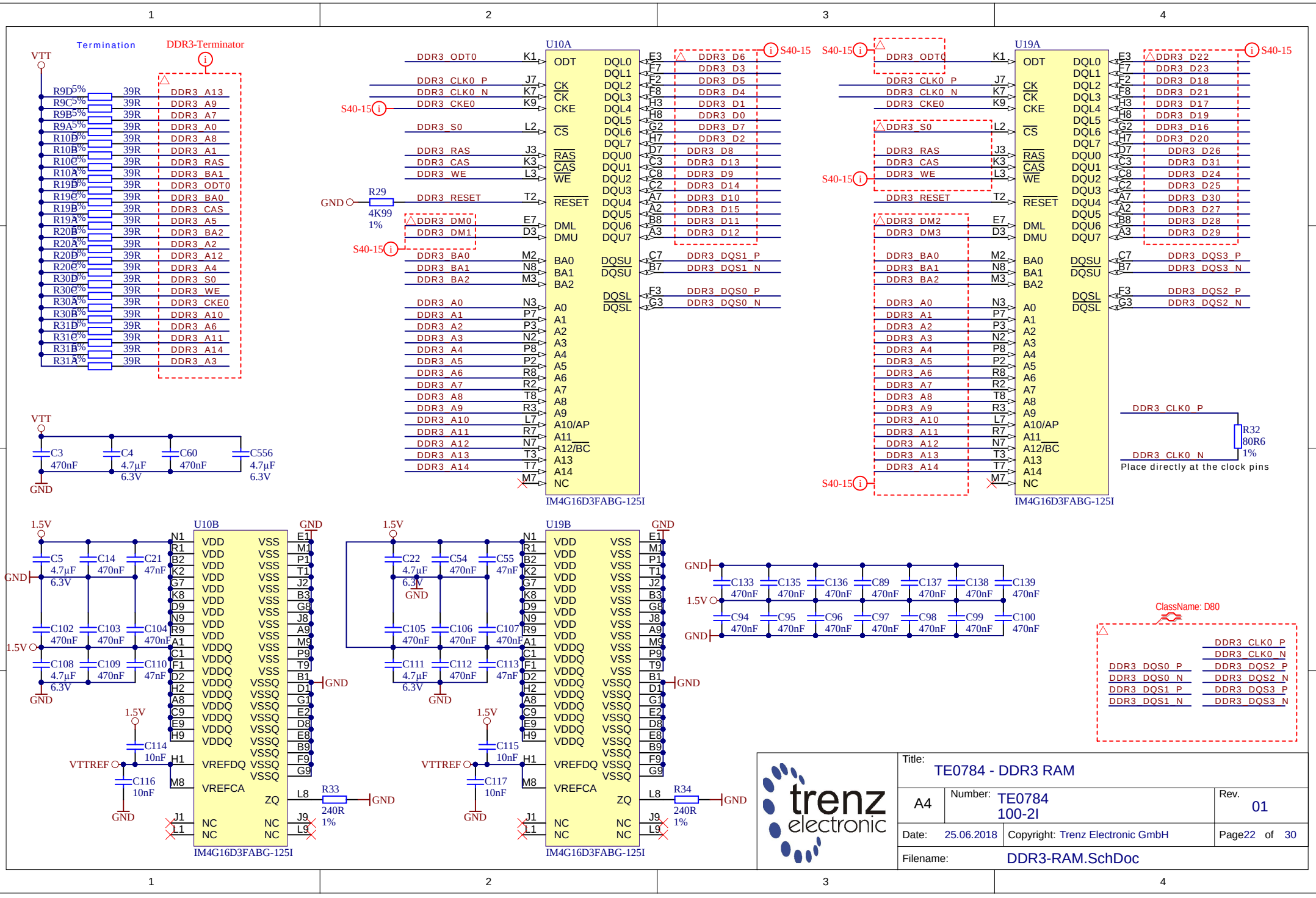
Date: 25.06.2018	Copyright: Trenz Electronic GmbH	Page 20 of 30
Filename: FPGA-PWR.SchDoc		



Title: TE0784 - Clock			
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page21 of 30
Filename: Clock.SchDoc			


Termination
DDR3-Terminator
VTT
R9D 5% 39R DDR3_A13
R9C 5% 39R DDR3_A9
R9B 5% 39R DDR3_A7
R9A 5% 39R DDR3_A0
R10D 5% 39R DDR3_A8
R10B 5% 39R DDR3_A1
R10C 5% 39R DDR3_RAS
R10A 5% 39R DDR3_BA1
R19D 5% 39R DDR3_ODT0
R19C 5% 39R DDR3_BA0
R19B 5% 39R DDR3_CAS
R19A 5% 39R DDR3_A5
R20D 5% 39R DDR3_BA2
R20A 5% 39R DDR3_A2
R20B 5% 39R DDR3_A12
R20C 5% 39R DDR3_A4
R30D 5% 39R DDR3_S0
R30C 5% 39R DDR3_WE
R30A 5% 39R DDR3_CKE0
R30B 5% 39R DDR3_A10
R31D 5% 39R DDR3_A6
R31C 5% 39R DDR3_A11
R31B 5% 39R DDR3_A14
R31A 5% 39R DDR3_A3
VTT
C3 470nF
C4 4.7µF 6.3V
C60 470nF
C556 4.7µF 6.3V
GND
U10A
DDR3_ODT0 K1 ODT
DDR3_CLK0_P J7 CK
DDR3_CLK0_N K7 CK
DDR3_CKE0 K9 CKE
S40-15
DDR3_S0 L2 CS
DDR3_RAS J3 RAS
DDR3_CAS K3 CAS
DDR3_WE L3 WE
R29 4K99 1%
GND
DDR3_RESET T2 RESET
DDR3_DM0 E7 DML
DDR3_DM1 D3 DMU
S40-15
DDR3_BA0 M2 BA0
DDR3_BA1 N8 BA1
DDR3_BA2 M3 BA2
DDR3_A0 N3 A0
DDR3_A1 P7 A1
DDR3_A2 P3 A2
DDR3_A3 N2 A3
DDR3_A4 P8 A4
DDR3_A5 P2 A5
DDR3_A6 R8 A6
DDR3_A7 R2 A7
DDR3_A8 T8 A8
DDR3_A9 R3 A9
DDR3_A10 L7 A10/AP
DDR3_A11 R7 A11
DDR3_A12 N7 A12/BC
DDR3_A13 T3 A13
DDR3_A14 T7 A14
M7 NC
DQL0 DQL1 DQL2 DQL3 DQL4 DQL5 DQL6 DQL7 DQU0 DQU1 DQU2 DQU3 DQU4 DQU5 DQU6 DQU7
DQSU DQSU
DQSL DQSL
E3 DDR3_D6
F7 DDR3_D3
F2 DDR3_D5
F8 DDR3_D4
H3 DDR3_D1
H8 DDR3_D0
G2 DDR3_D7
H7 DDR3_D2
D7 DDR3_D8
C3 DDR3_D13
C8 DDR3_D9
C2 DDR3_D14
A7 DDR3_D10
A2 DDR3_D15
B8 DDR3_D11
A3 DDR3_D12
C7 DDR3_DQS1_P
B7 DDR3_DQS1_N
E3 DDR3_DQS0_P
G3 DDR3_DQS0_N
S40-15
IM4G16D3FABG-125I
U19A
S40-15
DDR3_ODT0 K1 ODT
DDR3_CLK0_P J7 CK
DDR3_CLK0_N K7 CK
DDR3_CKE0 K9 CKE
DDR3_S0 L2 CS
DDR3_RAS J3 RAS
DDR3_CAS K3 CAS
DDR3_WE L3 WE
S40-15
DDR3_RESET T2 RESET
DDR3_DM2 E7 DML
DDR3_DM3 D3 DMU
DDR3_BA0 M2 BA0
DDR3_BA1 N8 BA1
DDR3_BA2 M3 BA2
DDR3_A0 N3 A0
DDR3_A1 P7 A1
DDR3_A2 P3 A2
DDR3_A3 N2 A3
DDR3_A4 P8 A4
DDR3_A5 P2 A5
DDR3_A6 R8 A6
DDR3_A7 R2 A7
DDR3_A8 T8 A8
DDR3_A9 R3 A9
DDR3_A10 L7 A10/AP
DDR3_A11 R7 A11
DDR3_A12 N7 A12/BC
DDR3_A13 T3 A13
DDR3_A14 T7 A14
M7 NC
S40-15
DQL0 DQL1 DQL2 DQL3 DQL4 DQL5 DQL6 DQL7 DQU0 DQU1 DQU2 DQU3 DQU4 DQU5 DQU6 DQU7
DQSU DQSU
DQSL DQSL
E3 DDR3_D22
F7 DDR3_D23
F2 DDR3_D18
F8 DDR3_D21
H3 DDR3_D17
H8 DDR3_D19
G2 DDR3_D16
H7 DDR3_D20
D7 DDR3_D26
C3 DDR3_D31
C8 DDR3_D24
C2 DDR3_D25
A7 DDR3_D30
A2 DDR3_D27
B8 DDR3_D28
A3 DDR3_D29
C7 DDR3_DQS3_P
B7 DDR3_DQS3_N
E3 DDR3_DQS2_P
G3 DDR3_DQS2_N
S40-15
IM4G16D3FABG-125I
DDR3_CLK0_P
R32 80R6 1%
DDR3_CLK0_N
Place directly at the clock pins
1.5V
C5 4.7µF 6.3V
C14 470nF
C21 47nF
GND
C102 470nF
C103 470nF
C104 470nF
1.5V
C108 4.7µF 6.3V
C109 470nF
C110 47nF
GND
U10B
VDD N1 R1 B2 K2 G7 K8 D9 N9 R9 A1 C1 F1 D2 H2 A8 C9 E9 H9
VDDQ A1 C1 D2 H2 A8 C9 E9 H9
VSS E1 M1 P1 T1 J2 B3 G8 J8 A9 M9 P9 T9
VSSQ B1 D1 G1 E2 D8 E8 B9 F9 G9
GND
1.5V
C114 10nF
VTTREF
C116 10nF
GND
VREFDQ H1
VREFCA M8
ZQ L8
R33 240R 1%
GND
NC J1 L1
NC J9 L9
IM4G16D3FABG-125I
1.5V
C22 4.7µF 6.3V
C54 470nF
C55 47nF
GND
C105 470nF
C106 470nF
C107 470nF
C111 4.7µF 6.3V
C112 470nF
C113 47nF
GND
U19B
VDD N1 R1 B2 K2 G7 K8 D9 N9 R9 A1 C1 F1 D2 H2 A8 C9 E9 H9
VDDQ A1 C1 D2 H2 A8 C9 E9 H9
VSS E1 M1 P1 T1 J2 B3 G8 J8 A9 M9 P9 T9
VSSQ B1 D1 G1 E2 D8 E8 B9 F9 G9
GND
1.5V
C115 10nF
VTTREF
C117 10nF
GND
VREFDQ H1
VREFCA M8
ZQ L8
R34 240R 1%
GND
NC J1 L1
NC J9 L9
IM4G16D3FABG-125I
GND
1.5V
GND
C133 470nF
C135 470nF
C136 470nF
C89 470nF
C137 470nF
C138 470nF
C139 470nF
C94 470nF
C95 470nF
C96 470nF
C97 470nF
C98 470nF
C99 470nF
C100 470nF
ClassName: D80
DDR3_DQS0_P
DDR3_DQS0_N
DDR3_DQS1_P
DDR3_DQS1_N
DDR3_CLK0_P
DDR3_CLK0_N
DDR3_DQS2_P
DDR3_DQS2_N
DDR3_DQS3_P
DDR3_DQS3_N
trenz electronic
Title: TE0784 - DDR3 RAM
A4
Number: TE0784 100-2I
Rev. 01
Date: 25.06.2018
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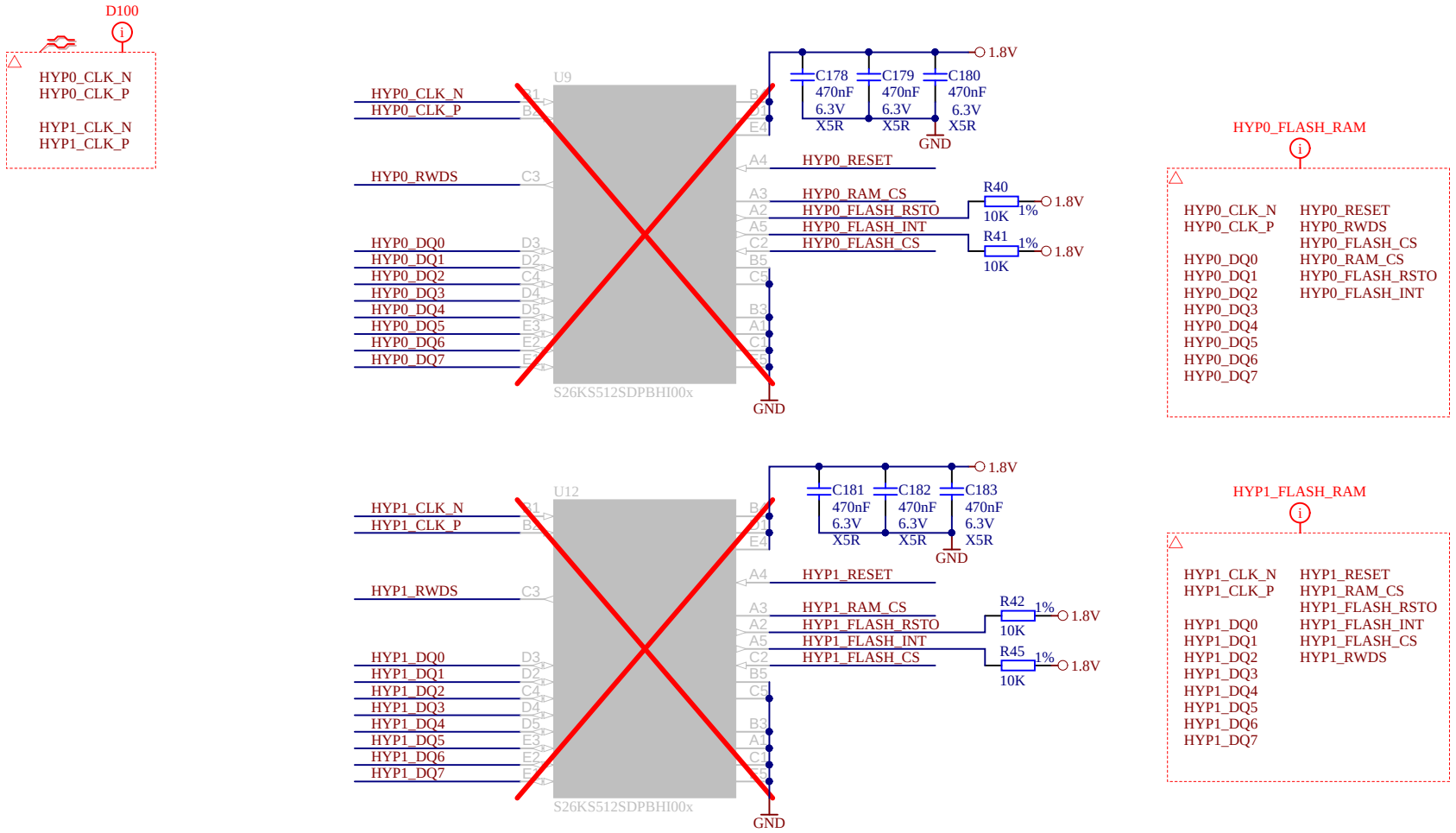
Filename: DDR3-RAM.SchDoc



Title:	TE0784 - HyperFlash_RAM
A4	Number: TE0784 100-2I
Rev.	01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH
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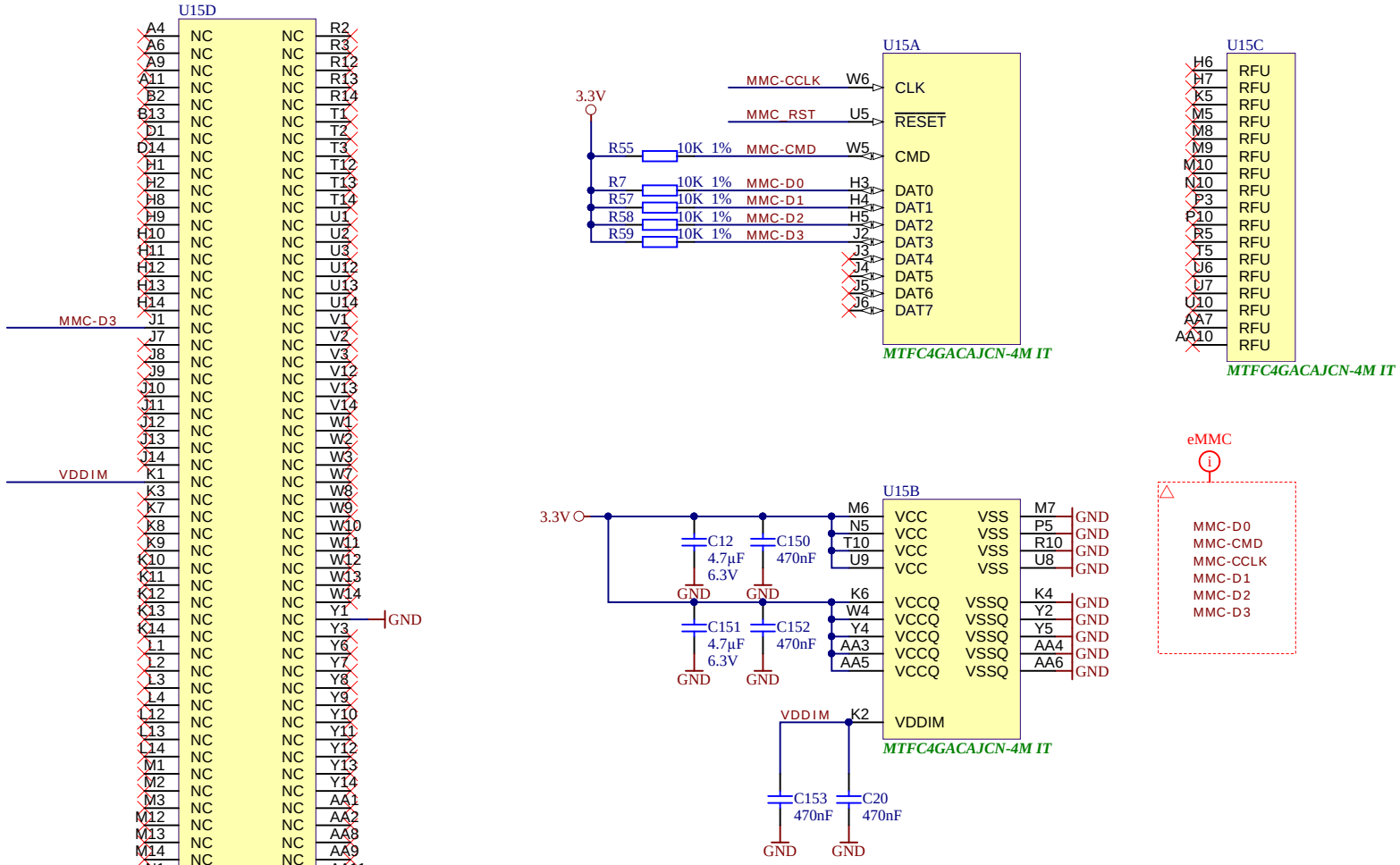

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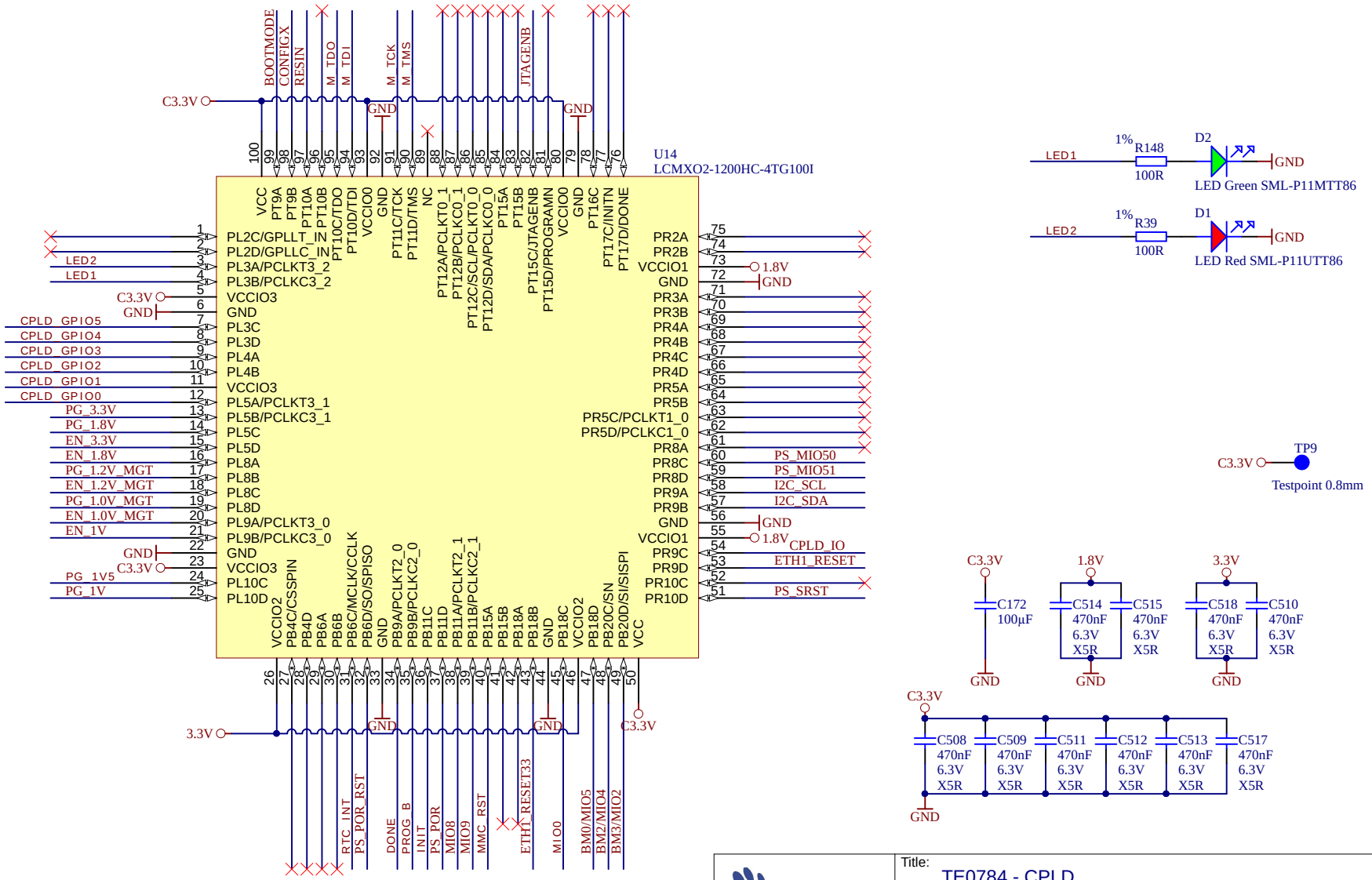
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page24 of 30
Filename: eMMC.SchDoc			



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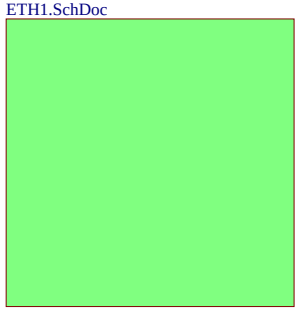
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page25 of 30
Filename: CPLD.SchDoc			

U_ETH1
ETH1.SchDoc



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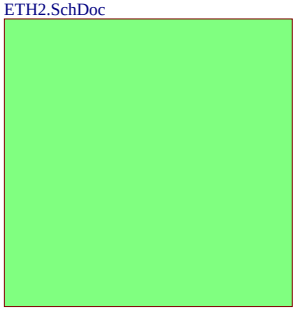

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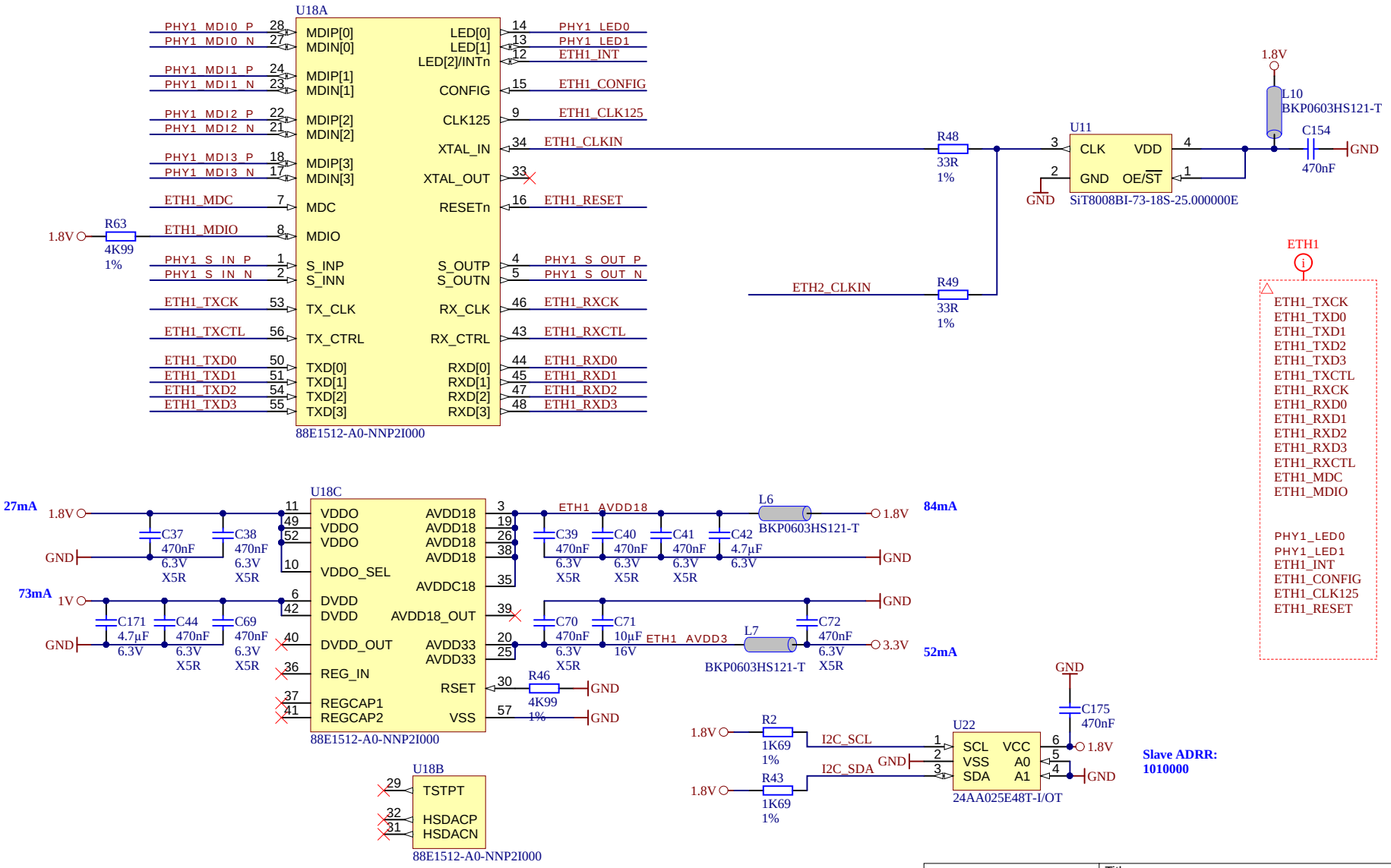
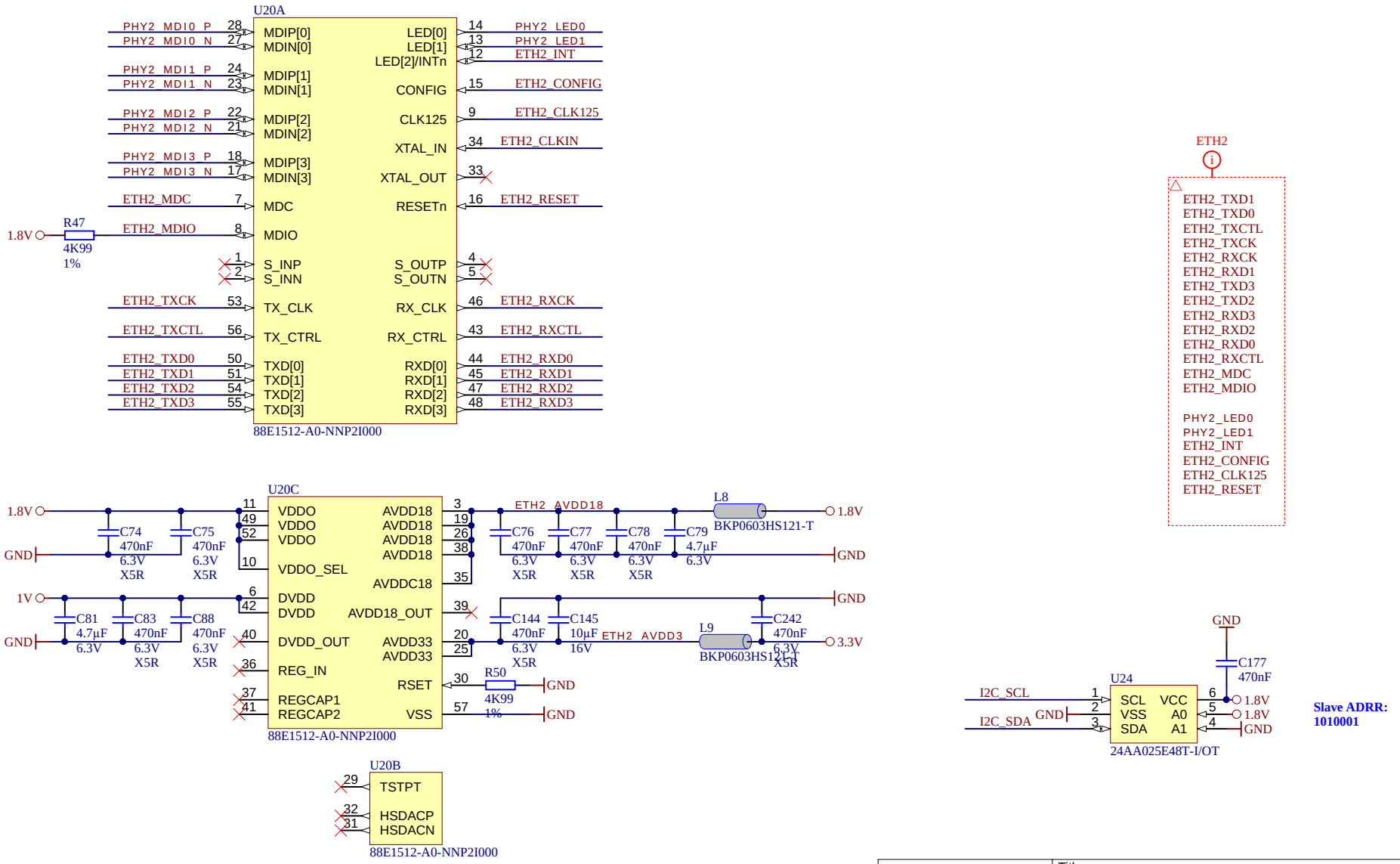
	Date: 25.06.2018	Copyright: Trenz Electronic GmbH	Page 26 of 30
	Filename: Ethernet.SchDoc		



trenz electronic	Title: TE0784 - ETH_PHY1		
A4	Number: TE0784 100-2I		Rev. 01
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page27 of 30
Filename: ETH1.SchDoc			



Title: TE0784 - ETH_PHY2			
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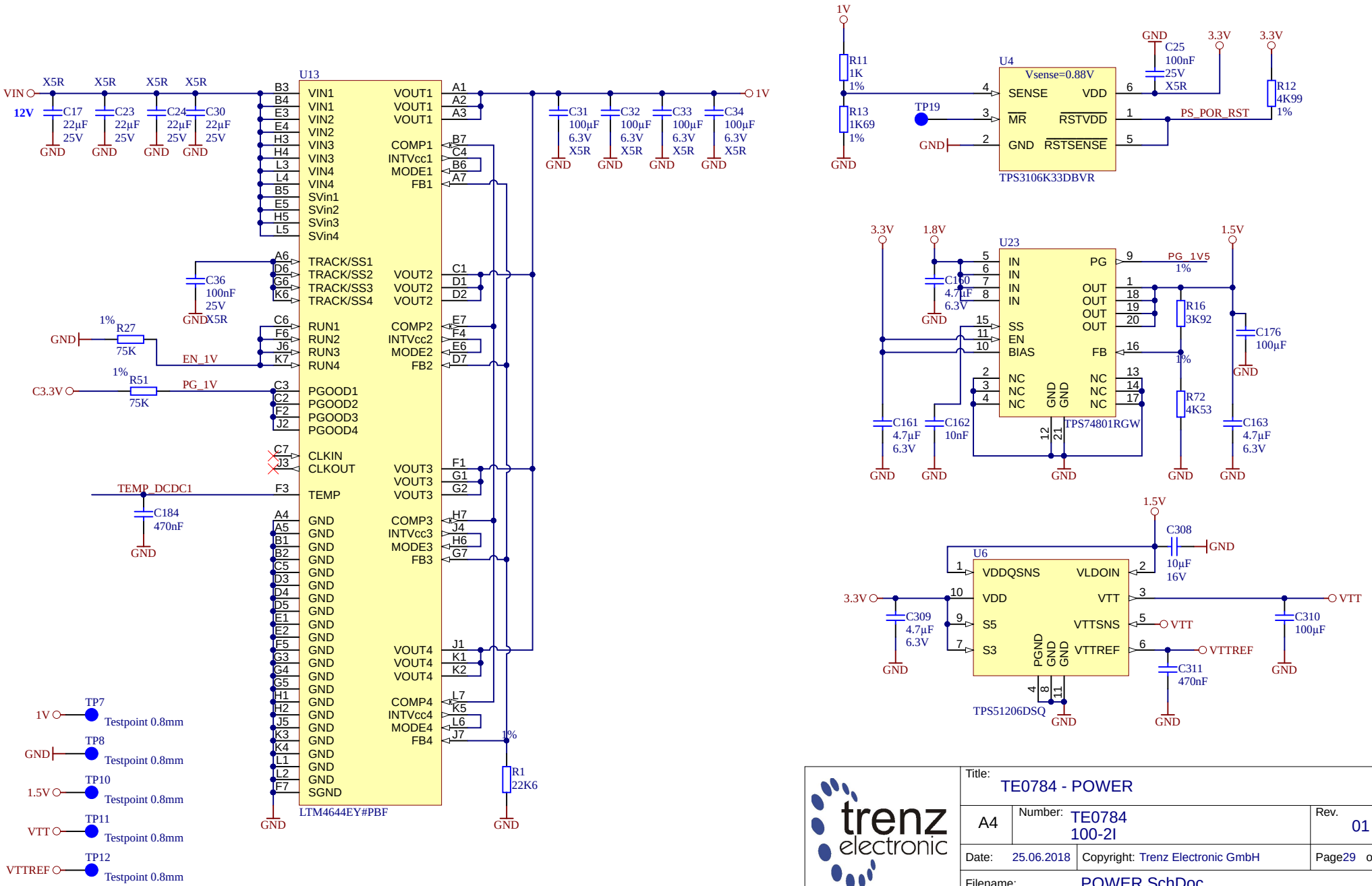
Date: 25.06.2018	Copyright: Trenz Electronic GmbH		Page28 of 30
Filename: ETH2.SchDoc			



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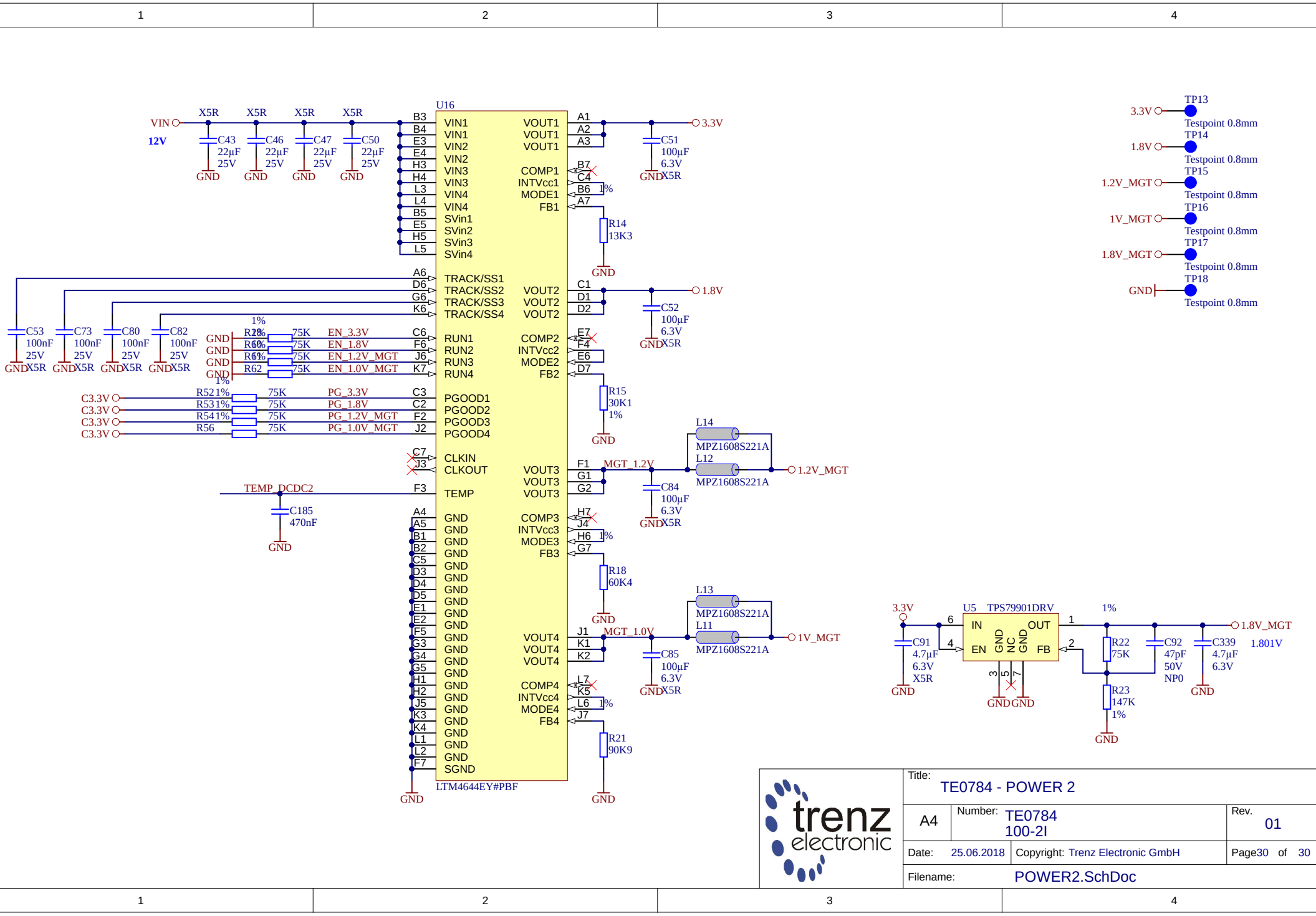
	Date: 25.06.2018	Copyright: Trenz Electronic GmbH	Page29 of 30
	Filename: POWER.SchDoc		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1.8V
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1V_MGT
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TEMP_DCDC2
EN_3.3V
EN_1.8V
EN_1.2V_MGT
EN_1.0V_MGT
PG_3.3V
PG_1.8V
PG_1.2V_MGT
PG_1.0V_MGT
MPZ1608S221A
TP13
TP14
TP15
TP16
TP17
TP18
Testpoint 0.8mm
U5 TPS79901DRV
1.801V
Title: TE0784 - POWER 2
A4
Number: TE0784 100-2I
Rev. 01
Date: 25.06.2018
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Filename: POWER2.SchDoc