

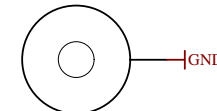
1

2

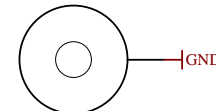
3

4

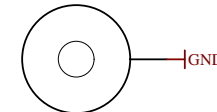
U_J1 J1.SchDoc	U_B_PS_GT B_PS_GT.SchDoc	U_DDR4-TERM DDR4-TERM.SchDoc
U_J2 J2.SchDoc	U_PS_DDR PS_DDR.SchDoc	U_ZU_POWER ZU_POWER.SchDoc
U_J3 J3.SchDoc	U_B_MIO B_MIO.SchDoc	U_ZU_PS_POWER ZU_PS_POWER.SchDoc
U_J4 J4.SchDoc	U_B_HD B_HD.SchDoc	U_POWER POWER.SchDoc
U_DDR4-TERM DDR4-TERM.SchDoc	U_Clock Clock.SchDoc	U_POWER_2 POWER_2.SchDoc
U_B64 B64.SchDoc	U_CONFIG CONFIG.SchDoc	U_POWER_3 POWER_3.SchDoc
U_B65 B65.SchDoc	U_DDR4-RAM DDR4-RAM.SchDoc	U_POWER_4 POWER_4.SchDoc
U_B66 B66.SchDoc	U_DDR4-RAM_2 DDR4-RAM_2.SchDoc	
U_B_GT B_GT.SchDoc	U_DDR4-RAM_3 DDR4-RAM_3.SchDoc	
U_B_GT_2 B_GT_2.SchDoc	U_DDR4-RAM_4 DDR4-RAM_4.SchDoc	



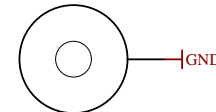
Mount.Hole 3.2mm für Unterlegscheibe



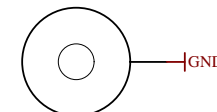
Mount.Hole 3.2mm für Unterlegscheibe



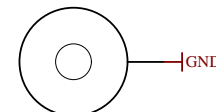
Mount.Hole 3.2mm für Unterlegscheibe



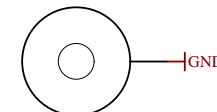
Mount.Hole 3.2mm für Unterlegscheibe



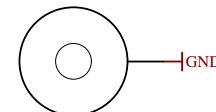
Mount.Hole 3.2mm für Unterlegscheibe



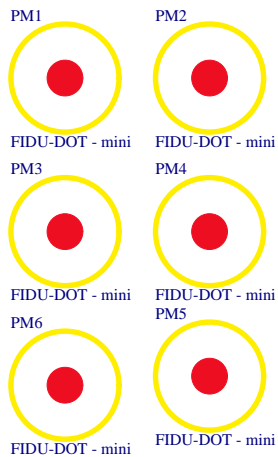
Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe



LOGO1
TE Logo PRINT Layer
LOGO PRINT

Serial
Serial
Serialnumber 6,3 x 6.3mm



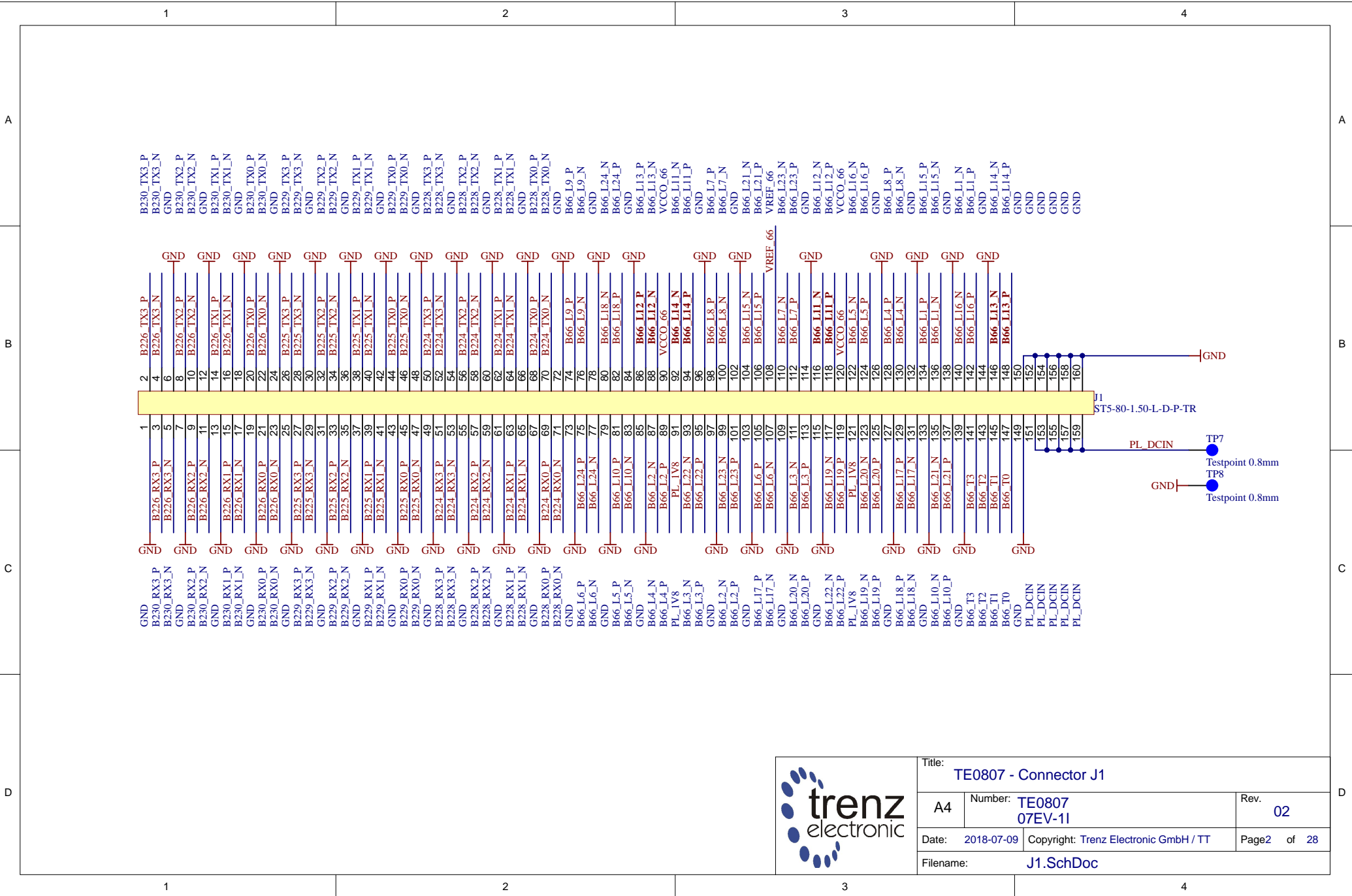
Title: TE0807		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page1 of 28
Filename: TE0807.SchDoc		

1

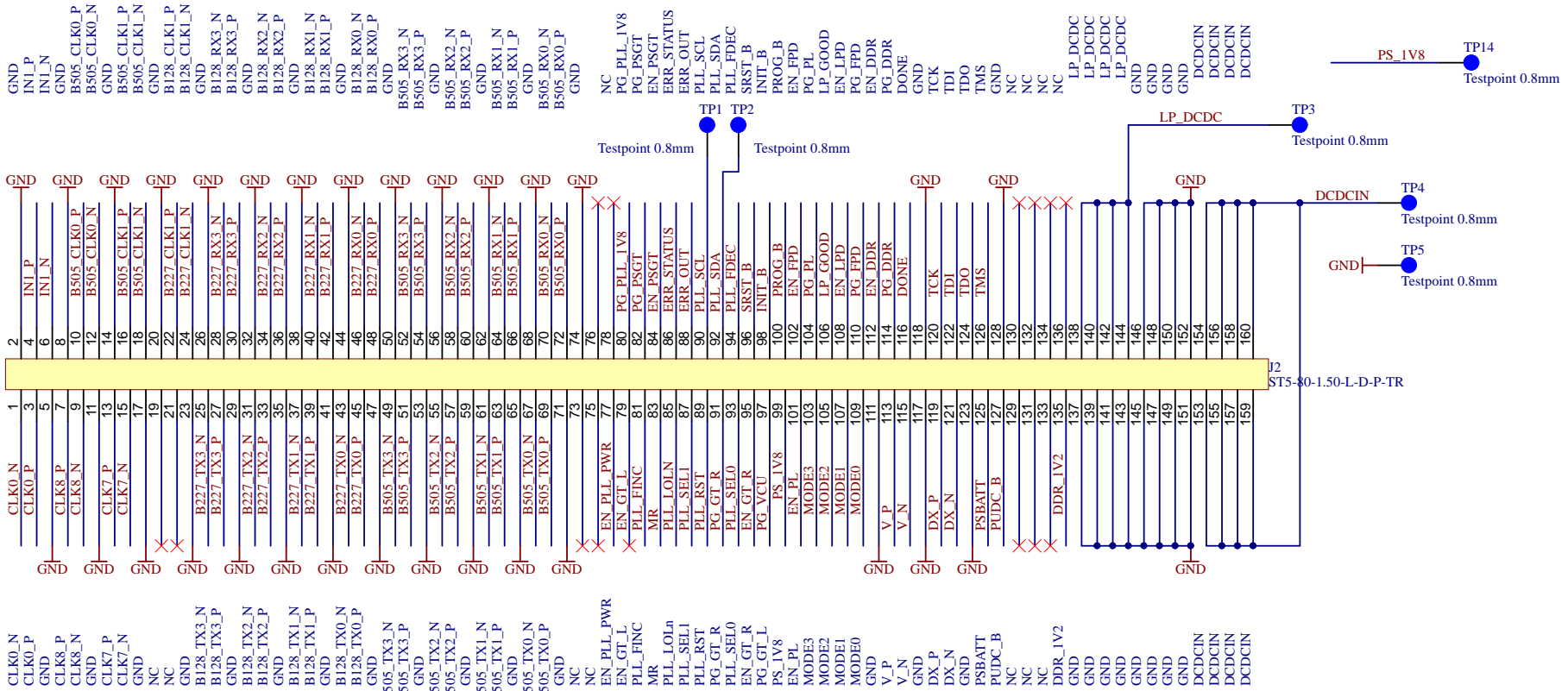
2

3

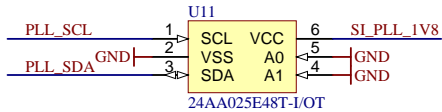
4



Title: TE0807 - Connector J1		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page2 of 28
Filename: J1.SchDoc		



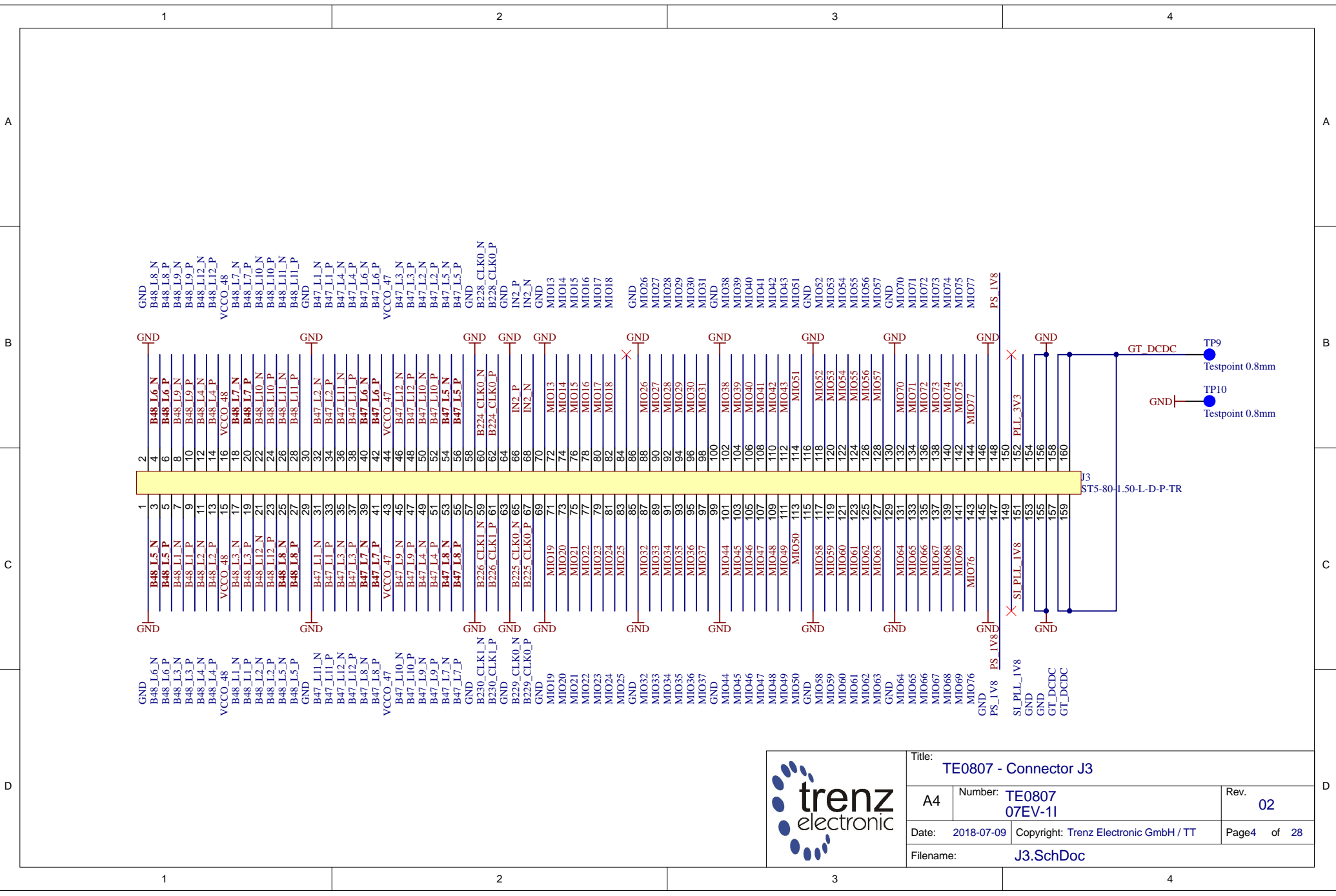
EEPROM for MAC




Slave address: 1010000x



Title: TE0807 - Connector J2		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page3 of 28
Filename: J2.SchDoc		



	Title: TE0807 - Connector J3	
	A4	Number: TE0807 07EV-11
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT
	Rev. 02	Page4 of 28
Filename: J3.SchDoc		

A
B
C
D

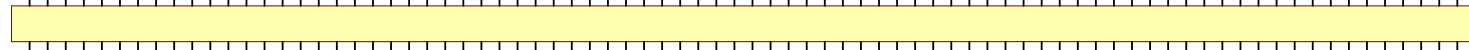
1

2

3

4

B65_T3	1	B65_T3	2	B64_T2	B64_T2
B65_T2	3	B65_T2	4	B64_T3	B64_T3
B65_T1	5	B65_T1	6	B64_T1	B64_T1
B65_T0	7	B65_T0	8	B64_T0	B64_T0
GND	9	GND	10	GND	GND
B65_L24_P	11	B65_L23_P	11	B64_L4_N	B64_L24_N
B65_L24_N	13	B65_L23_N	13	B64_L4_P	B64_L24_P
VREF_65	15	VREF_65	15	GND	GND
B65_L17_N	17	B65_L18_N	17	GND	B64_L22_P
B65_L17_P	19	B65_L18_P	19	GND	B64_L22_N
GND	21	GND	21	GND	GND
B65_L22_P	23	B65_L24_P	23	B64_L5_P	B64_L23_P
B65_L22_N	25	B65_L24_N	25	B64_L5_N	B64_L23_N
GND	27	GND	27	GND	GND
B65_L21_P	29	B65_L20_P	29	B64_L7_N	B64_L19_N
B65_L21_N	31	B65_L20_N	31	B64_L7_P	B64_L19_P
GND	33	GND	33	GND	GND
B65_L20_P	35	B65_L21_P	35	B64_L16_P	B64_L15_P
B65_L20_N	37	B65_L21_N	37	B64_L16_N	B64_L15_N
GND	39	GND	39	GND	GND
B65_L23_N	41	B65_L22_N	41	B64_L3_P	B64_L21_P
B65_L23_P	43	B65_L22_P	43	B64_L3_N	B64_L21_N
GND	45	GND	45	GND	GND
B65_L19_P	47	B65_L19_P	47	B64_L2_N	B64_L20_N
B65_L19_N	49	B65_L19_N	49	B64_L2_P	B64_L20_P
GND	51	GND	51	GND	GND
B65_L18_P	53	B65_L17_P	53	B64_L6_P	B64_L18_P
B65_L18_N	55	B65_L17_N	55	B64_L6_N	B64_L18_N
GND	57	GND	57	VCCO_64	VCCO_64
B65_L15_N	59	B65_L15_N	59	B64_L15_P	B64_L17_P
B65_L15_P	61	B65_L15_P	61	B64_L15_N	B64_L17_N
GND	63	GND	63	GND	GND
B65_L12_N	65	B65_L12_N	65	B64_L11_N	B64_L13_N
B65_L12_P	67	B65_L12_P	67	B64_L11_P	B64_L13_P
VCCO_65	69	VCCO_65	69	GND	GND
B65_L7_N	71	B65_L7_N	71	B64_L12_N	B64_L14_N
B65_L7_P	73	B65_L7_P	73	B64_L12_P	B64_L14_P
GND	75	GND	75	GND	GND
B65_L11_N	77	B65_L11_N	77	B64_L13_P	B64_L11_P
B65_L11_P	79	B65_L11_P	79	B64_L13_N	B64_L11_N
GND	81	GND	81	GND	GND
B65_L6_N	83	B65_L5_N	83	B64_L8_N	B64_L16_N
B65_L6_P	85	B65_L5_P	85	B64_L8_P	B64_L16_P
GND	87	GND	87	VREF_64	VREF_64
B65_L13_P	89	B65_L14_P	89	B64_L9_N	B64_L10_N
B65_L13_N	91	B65_L14_N	91	B64_L9_P	B64_L10_P
GND	93	GND	93	GND	GND
B65_L10_N	95	B65_L9_N	95	B64_L10_N	B64_L16_N
B65_L10_P	97	B65_L9_P	97	B64_L10_P	B64_L16_P
GND	99	GND	99	GND	GND
B65_L4_N	101	B65_L4_N	101	B64_L22_P	B64_L5_P
B65_L4_P	103	B65_L4_P	103	B64_L22_N	B64_L5_N
VCCO_65	105	VCCO_65	105	VCCO_64	VCCO_64
B65_L4_N	107	B65_L6_N	107	B64_L20_N	B64_L19_N
B65_L4_P	109	B65_L6_P	109	B64_L20_P	B64_L19_P
GND	111	GND	111	GND	GND
B65_L14_N	113	B65_L13_N	113	B64_L19_P	B64_L14_P
B65_L14_P	115	B65_L13_P	115	B64_L19_N	B64_L14_N
GND	117	GND	117	GND	GND
B65_L8_P	119	B65_L1_P	119	B64_L21_N	B64_L3_N
B65_L8_N	121	B65_L1_N	121	B64_L21_P	B64_L3_P
GND	123	GND	123	GND	GND
B65_L2_N	125	B65_L10_N	125	B64_L14_N	B64_L12_N
B65_L2_P	127	B65_L10_P	127	B64_L14_P	B64_L12_P
GND	129	GND	129	GND	GND
B65_L16_P	131	B65_L16_P	131	B64_L23_N	B64_L2_N
B65_L16_N	133	B65_L16_N	133	B64_L23_P	B64_L2_P
GND	135	GND	135	GND	GND
B65_L3_N	137	B65_L3_N	137	B64_L24_N	B64_L1_N
B65_L3_P	139	B65_L3_P	139	B64_L24_P	B64_L1_P
GND	141	GND	141	GND	GND
B65_L1_P	143	B65_L2_P	143	B64_L18_N	B64_L8_N
B65_L1_N	145	B65_L2_N	145	B64_L18_P	B64_L8_P
GND	147	GND	147	GND	GND
B65_L5_P	149	B65_L8_P	149	B64_L17_P	B64_L7_P
B65_L5_N	151	B65_L8_N	151	B64_L17_N	B64_L7_N
GND	153	GND	153	GND	GND
NC	155	NC	155	B64_L17_P	NC
NC	157	NC	157	B64_L17_N	NC
NC	159	NC	159	B64_L17_P	NC
NC	160	NC	160	B64_L17_N	NC



Title: TE0807 - Connector J4

A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page5 of 28
Filename: J4.SchDoc		

1

2

3

4

1

2

3

4

A

A

B

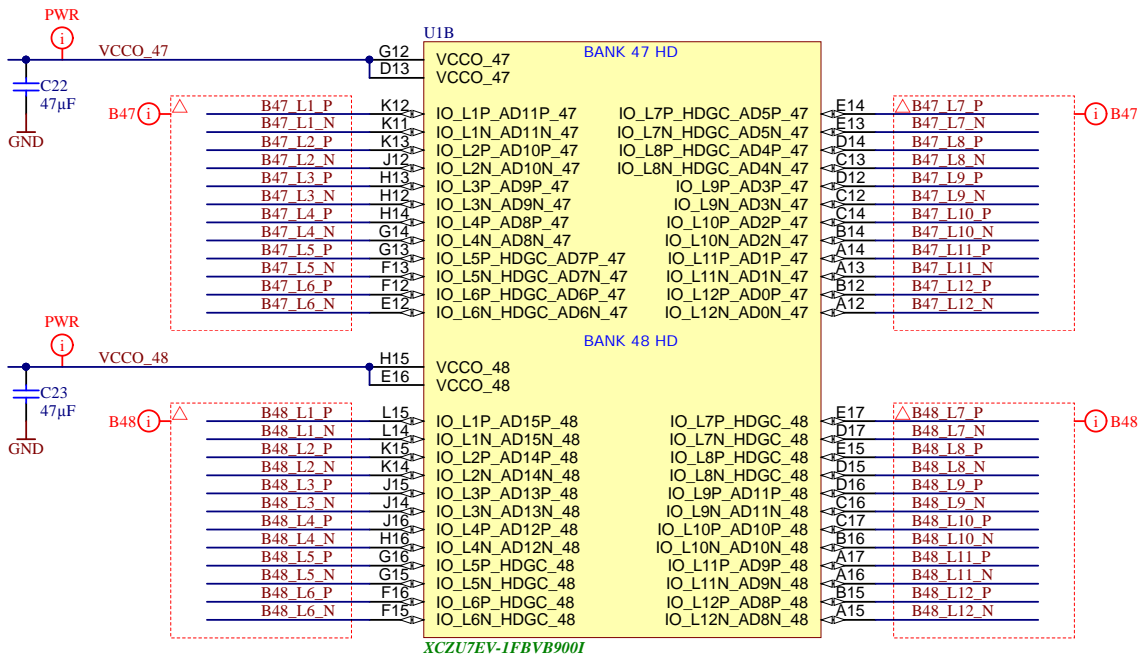
B


C

C

D

D



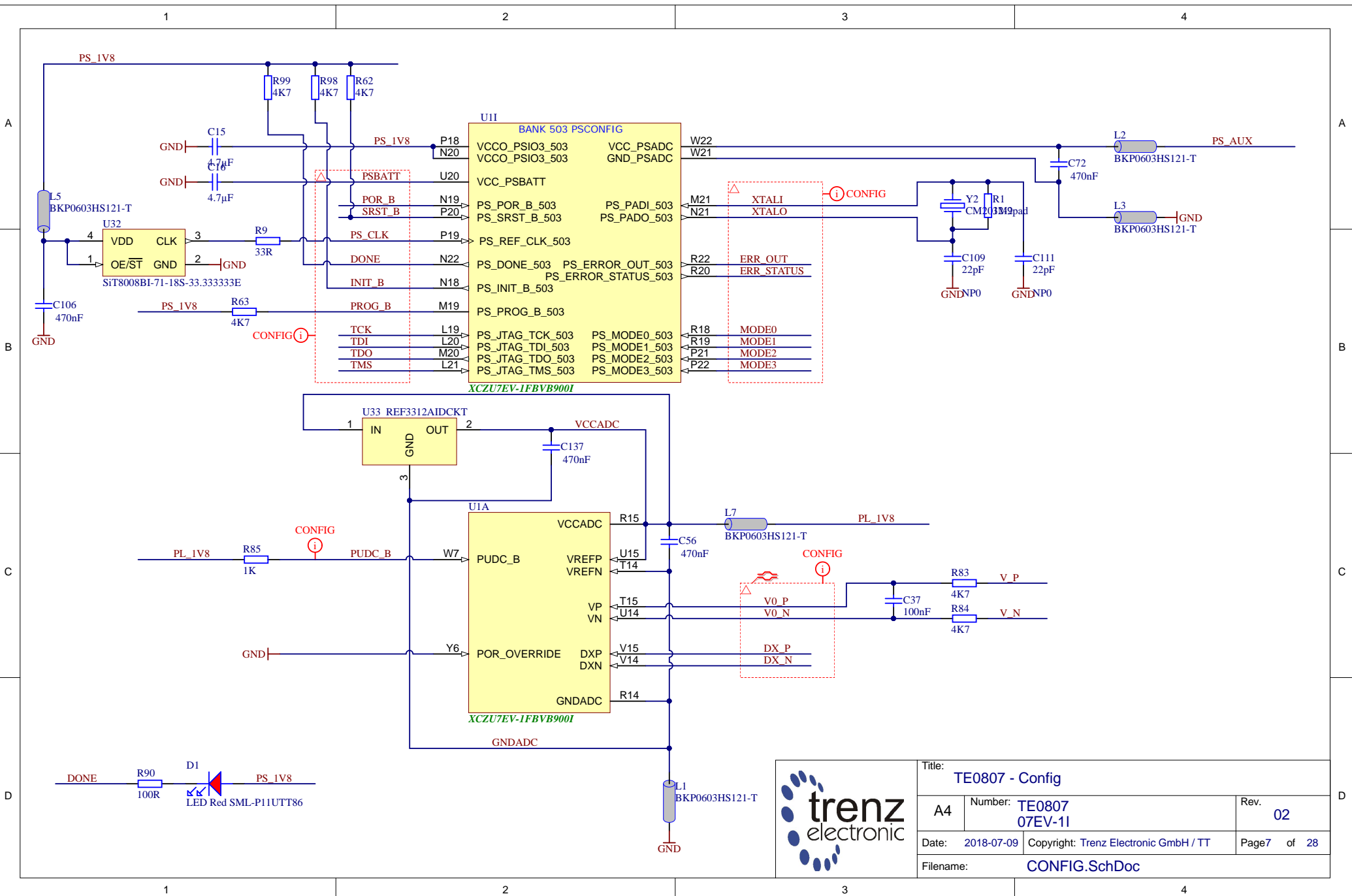
	Title: TE0807 - B47HD and B48HD		
	A4	Number: TE0807 07EV-11	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page6 of 28
	Filename: B_HD.SchDoc		

1

2

3

4



Title: TE0807 - Config		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page7 of 28
Filename: CONFIG.SchDoc		

1

2

3

4

A

A

B

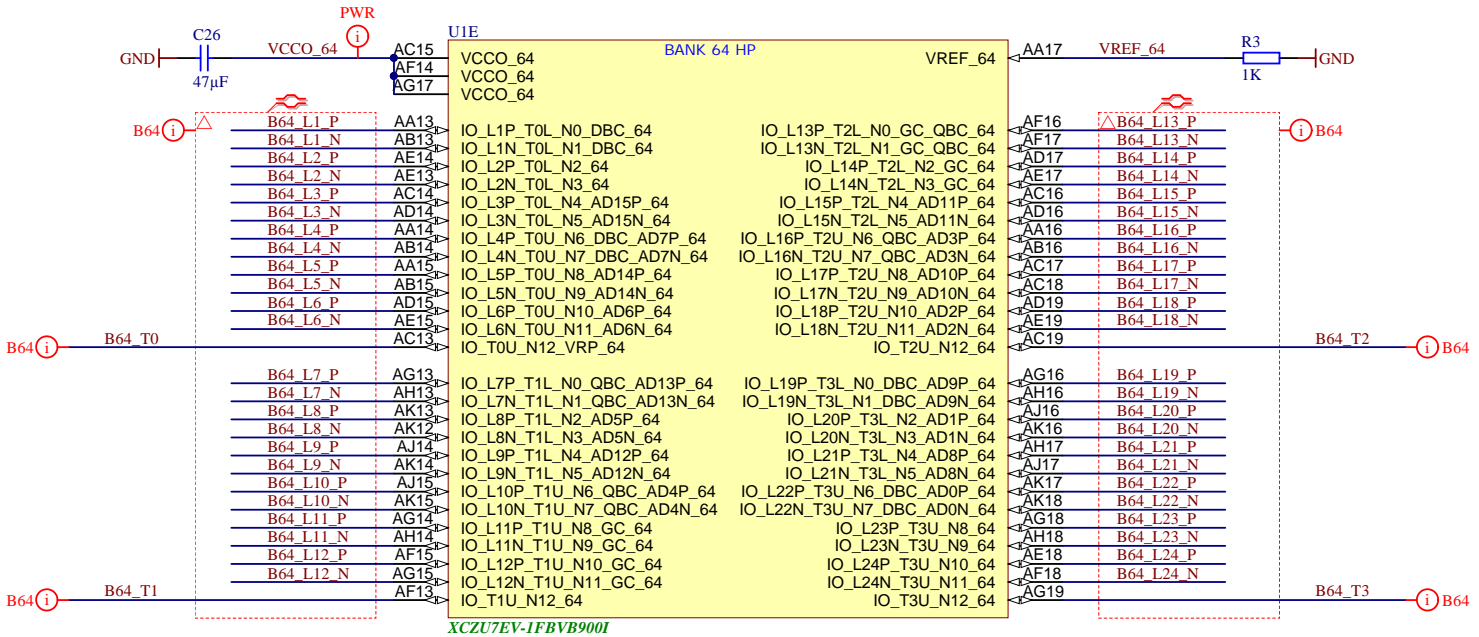
B


C

C

D

D



	Title: TE0807 - B64	
	A4	Number: TE0807 07EV-11
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT
	Filename: B64.SchDoc	Rev. 02
		Page8 of 28

1

2

3

4

1

2

3

4

A

A

B

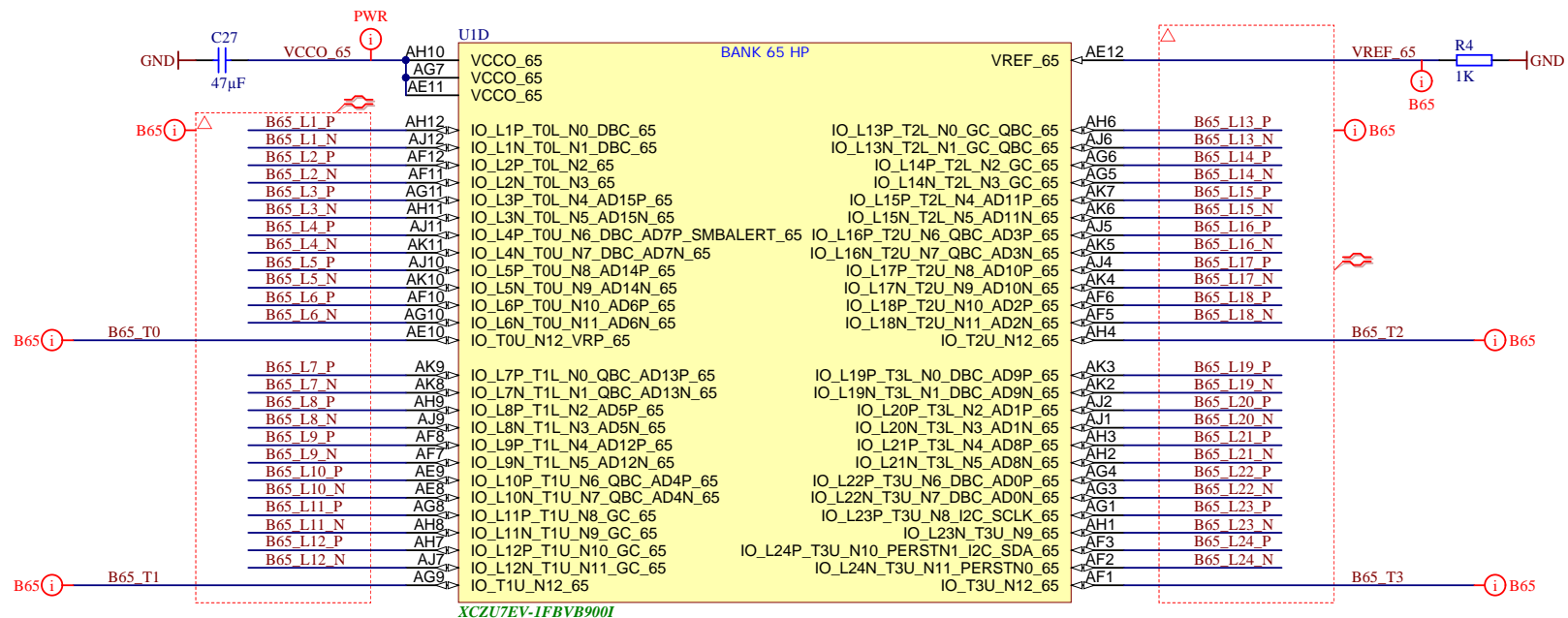
B

C

C

D

D



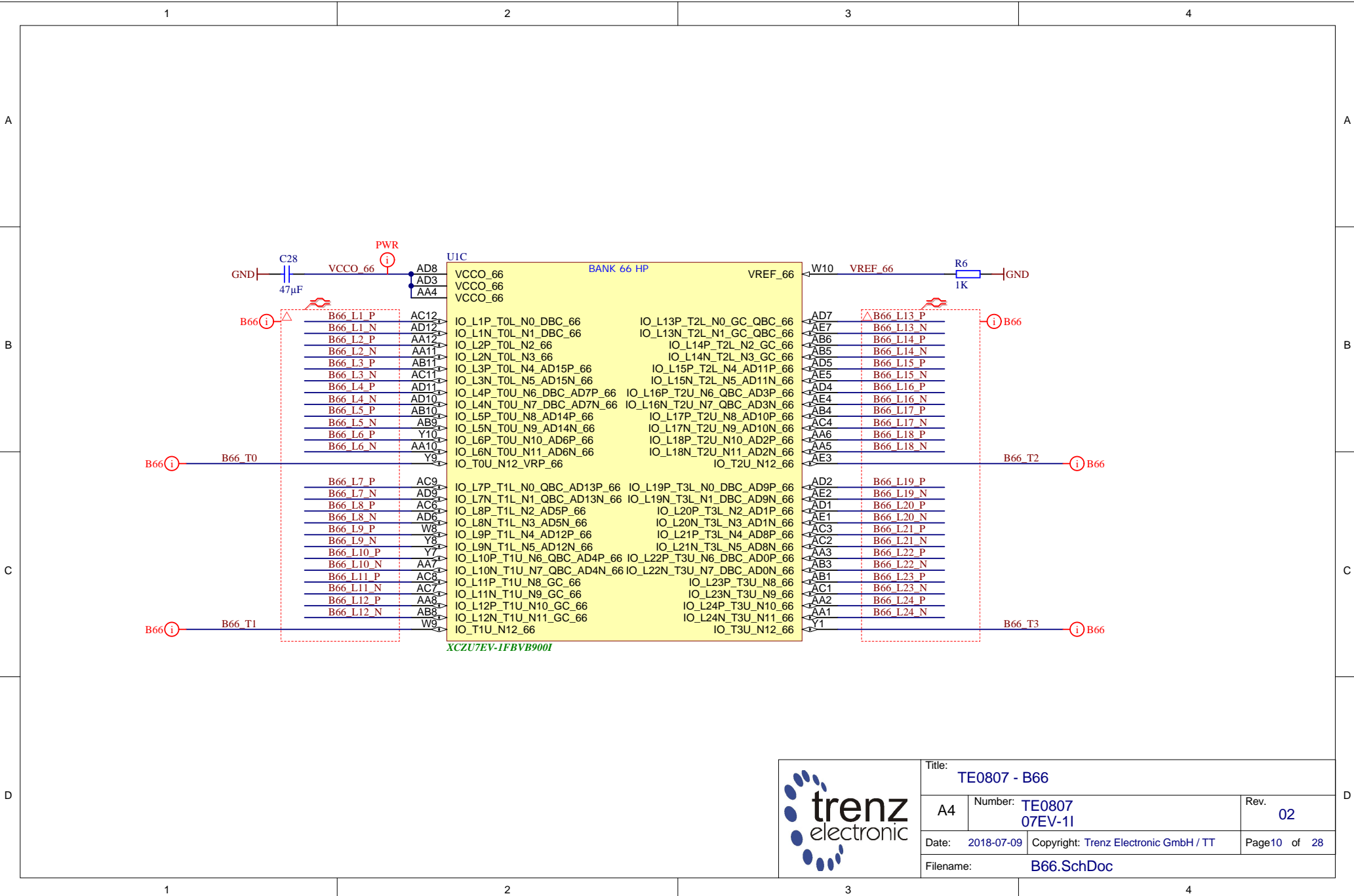
	Title: TE0807 - B65		
	A4	Number: TE0807 07EV-11	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page9 of 28
	Filename: B65.SchDoc		

1

2

3

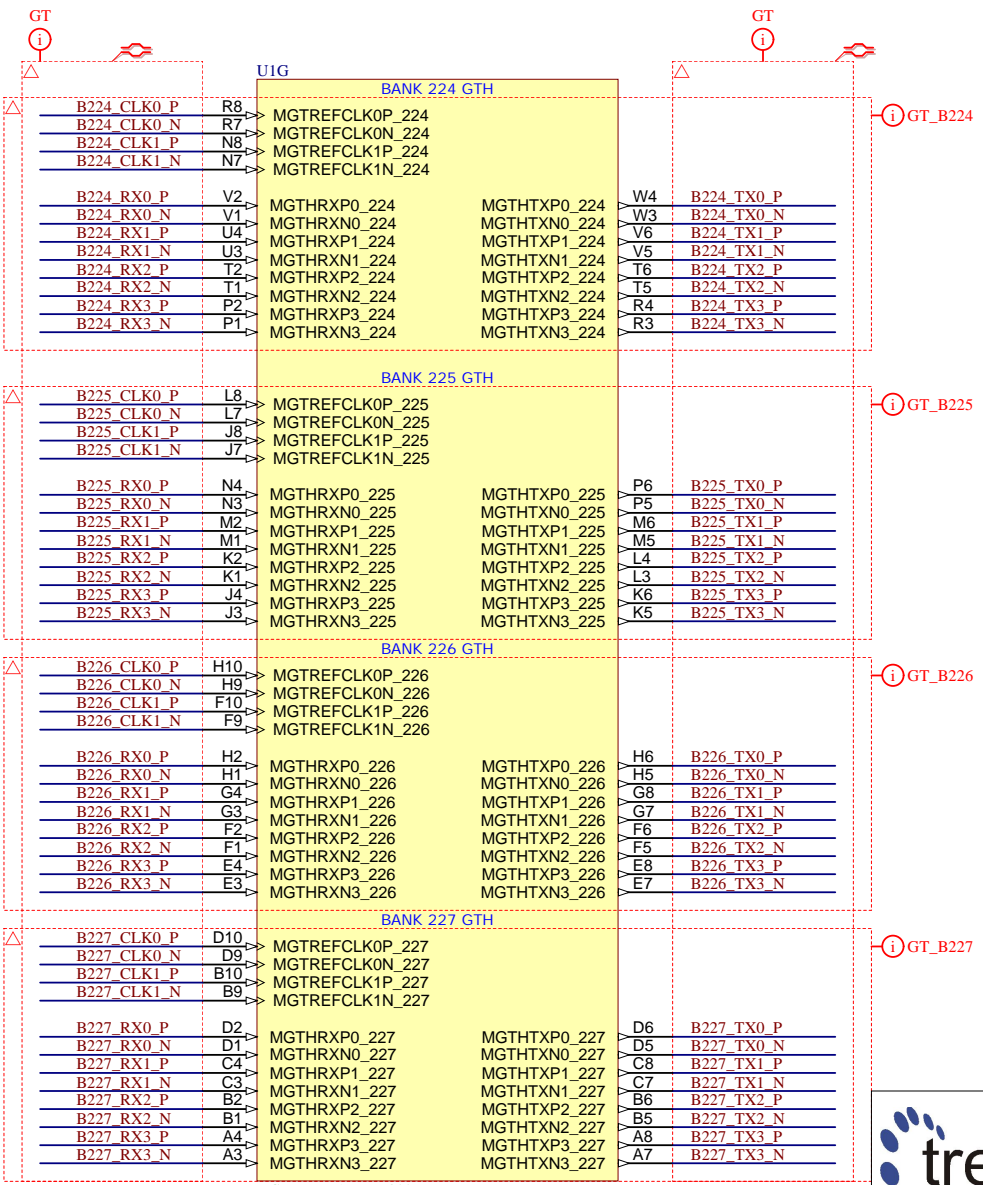
4



Title: TE0807 - B66		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 10 of 28
Filename: B66.SchDoc		

A
B
C
D

A
B
C
D



Title: TE0807 - GTH_Banks		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 11 of 28
Filename: B_GT.SchDoc		

1

2

3

4

A

A

B

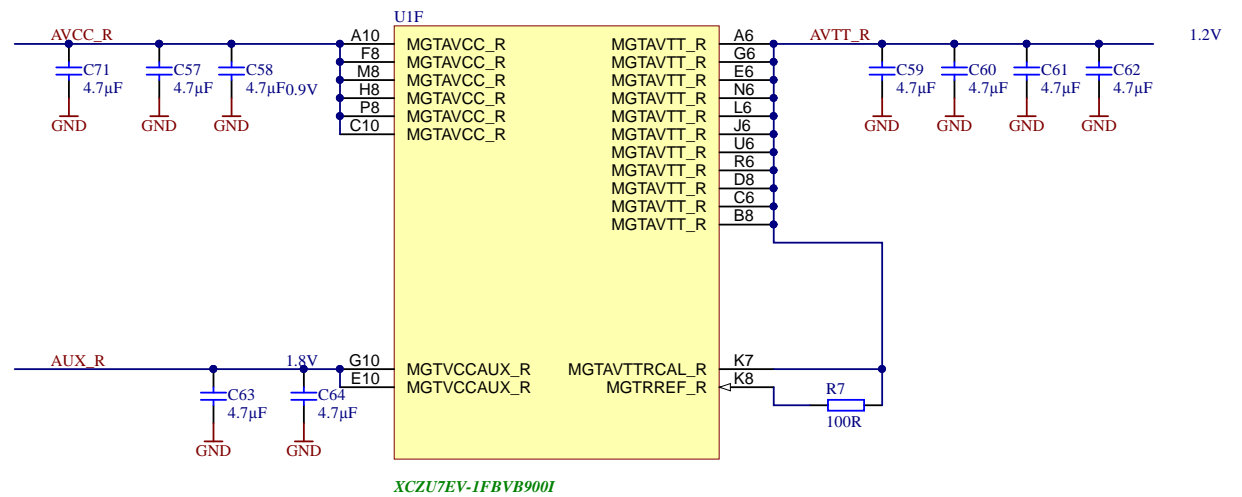
B

C

C

D

D



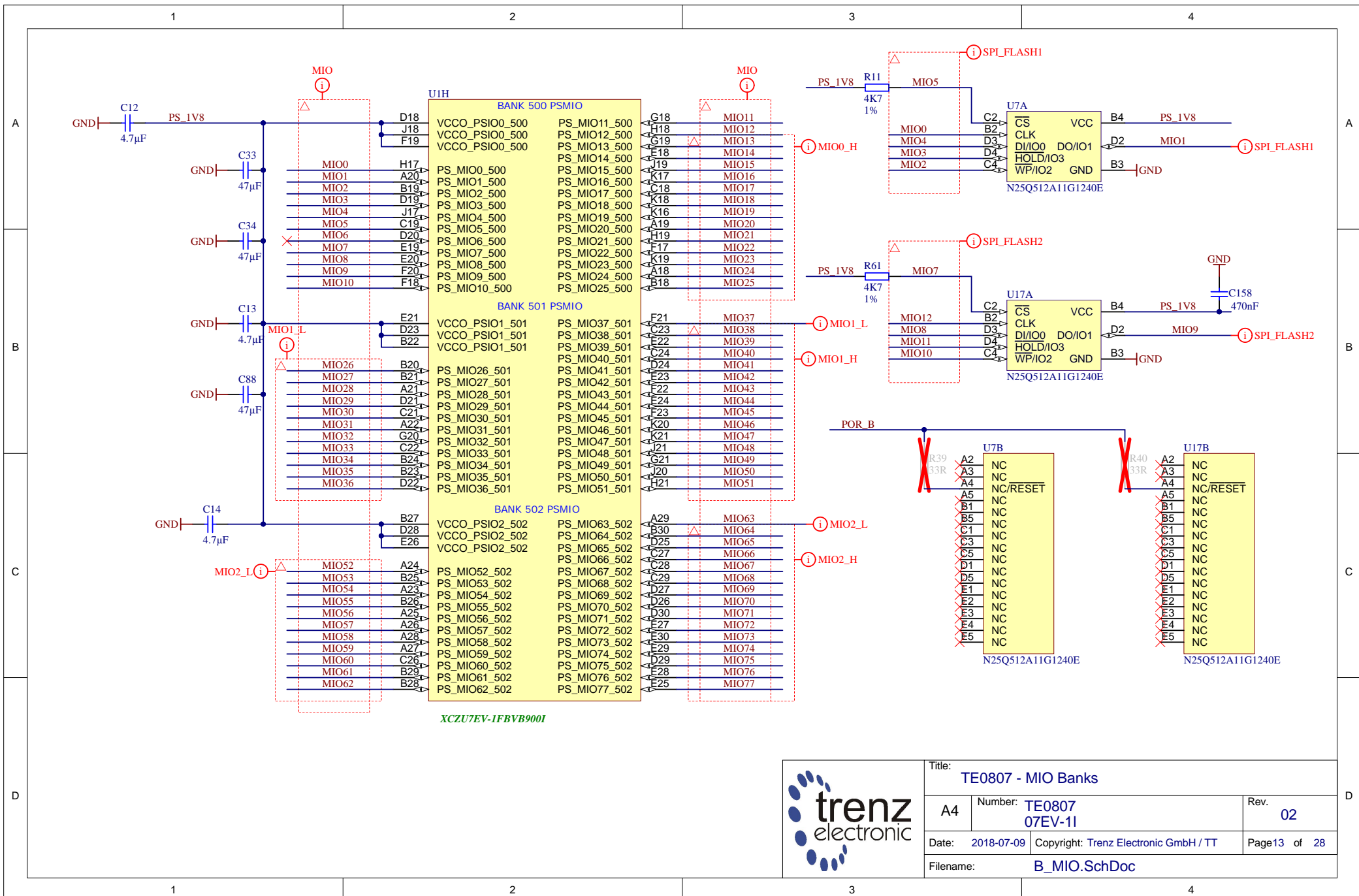
Title: TE0807 - GTH_PWR		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 12 of 28
Filename: B_GT_2.SchDoc		


1

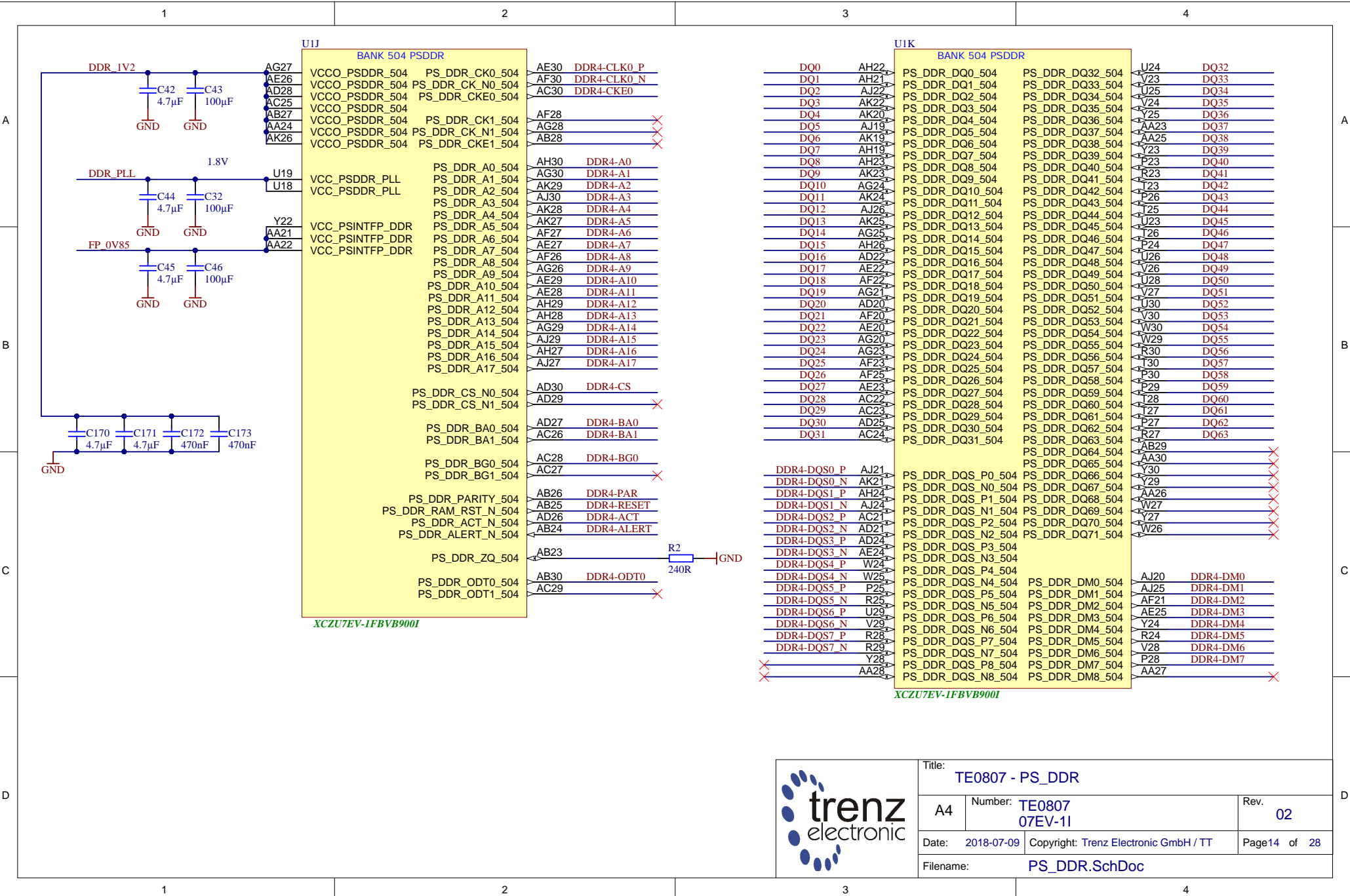
2

3

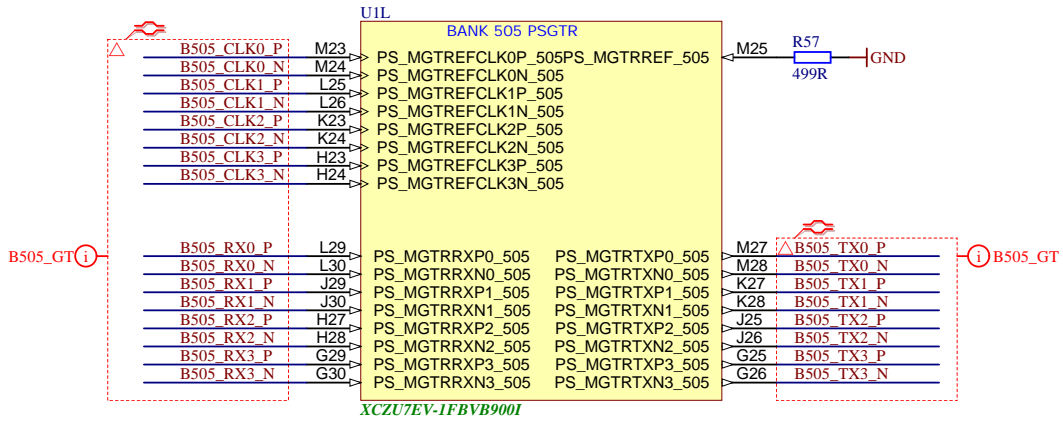
4




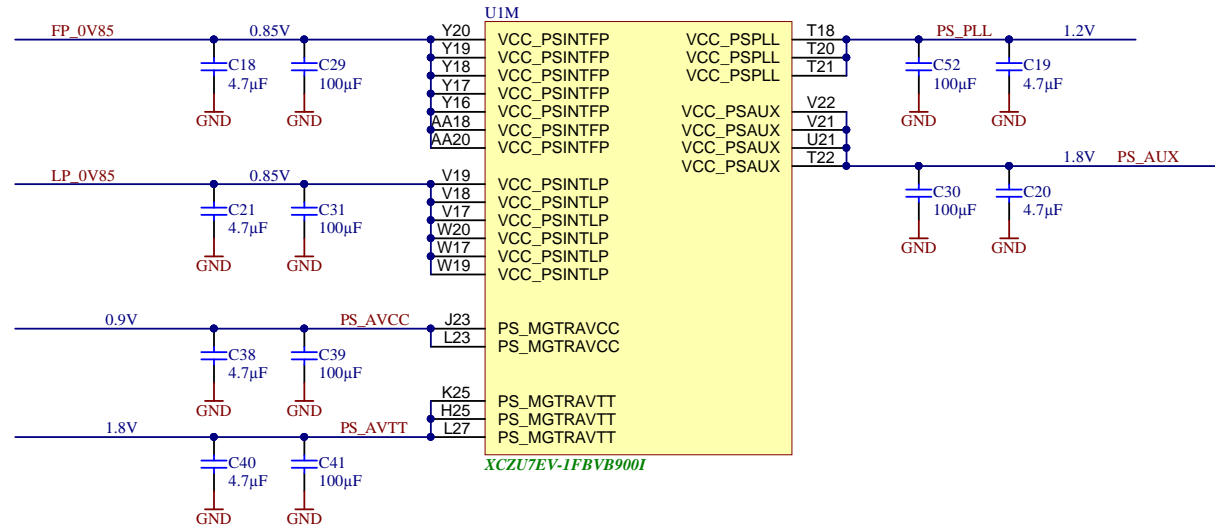
		Title: TE0807 - MIO Banks	
		A4	Number: TE0807 07EV-11
Date: 2018-07-09		Copyright: Trenz Electronic GmbH / TT	
Filename: B_MIO.SchDoc		Page13 of 28	




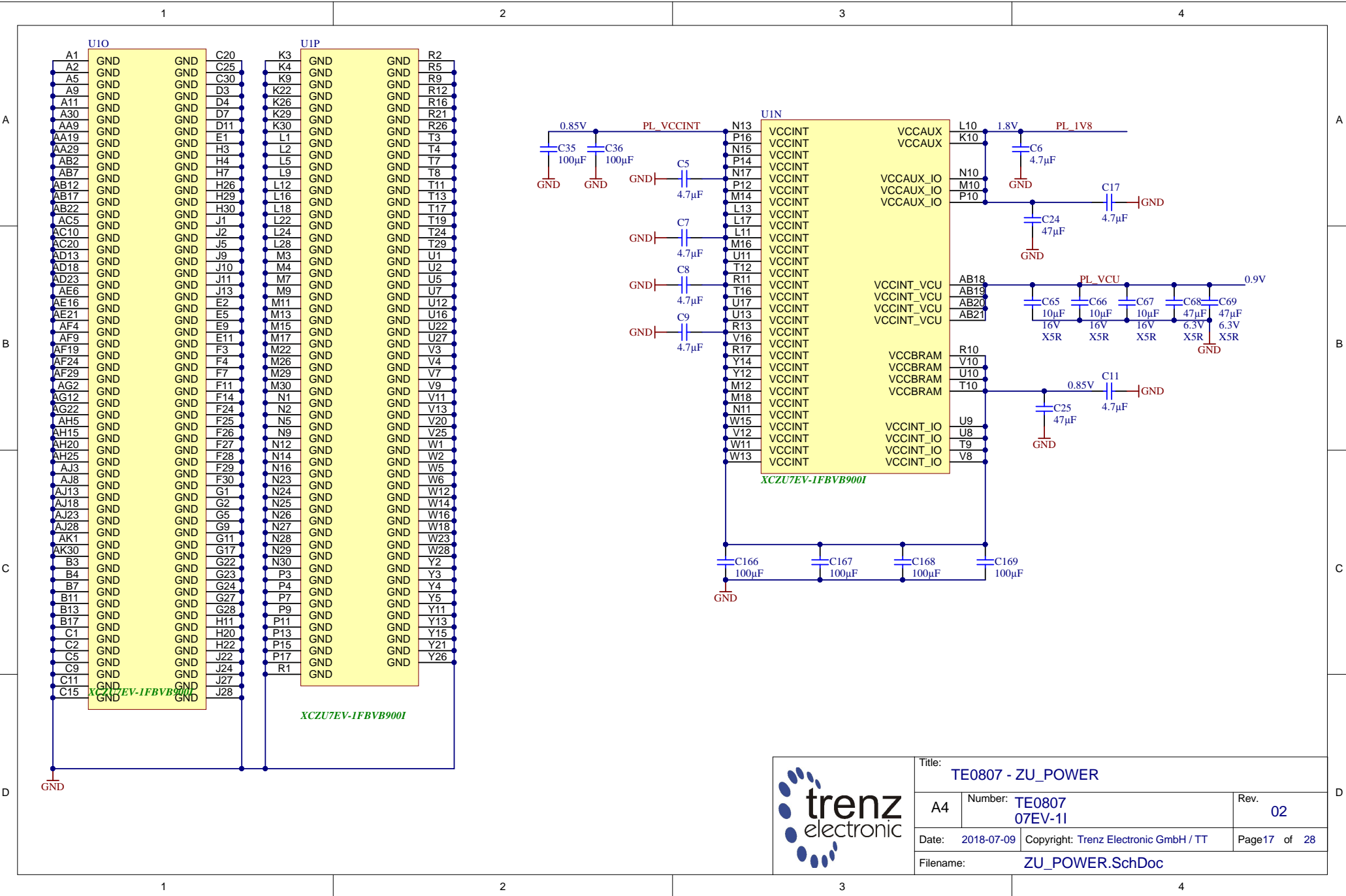
Title: TE0807 - PS_DDR			
A4	Number: TE0807 07EV-11	Rev. 02	
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 14 of 28	
Filename: PS_DDR.SchDoc			



	Title: TE0807 - PS_GT		
	A4	Number: TE0807 07EV-1I	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 15 of 28
	Filename: B_PS_GT.SchDoc		



	Title: TE0807 - ZU_PS_POWER		
	A4	Number: TE0807 07EV-1I	Rev. 02
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 16 of 28
	Filename: ZU_PS_POWER.SchDoc		



Title: TE0807 - ZU_POWER		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 17 of 28
Filename: ZU_POWER.SchDoc		

1

2

3

4

A

A

B

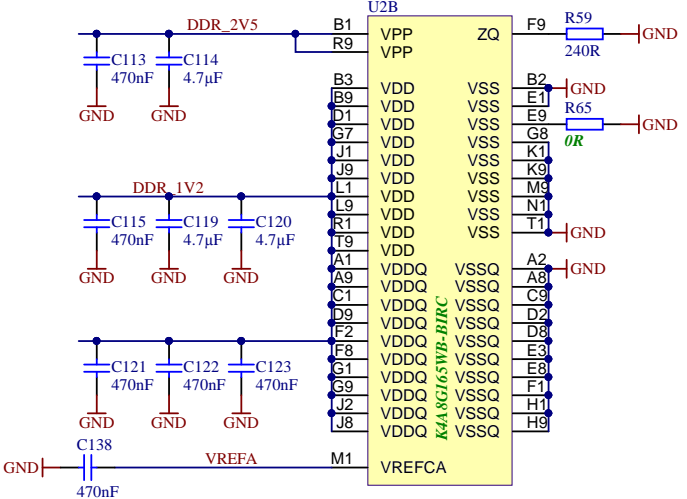
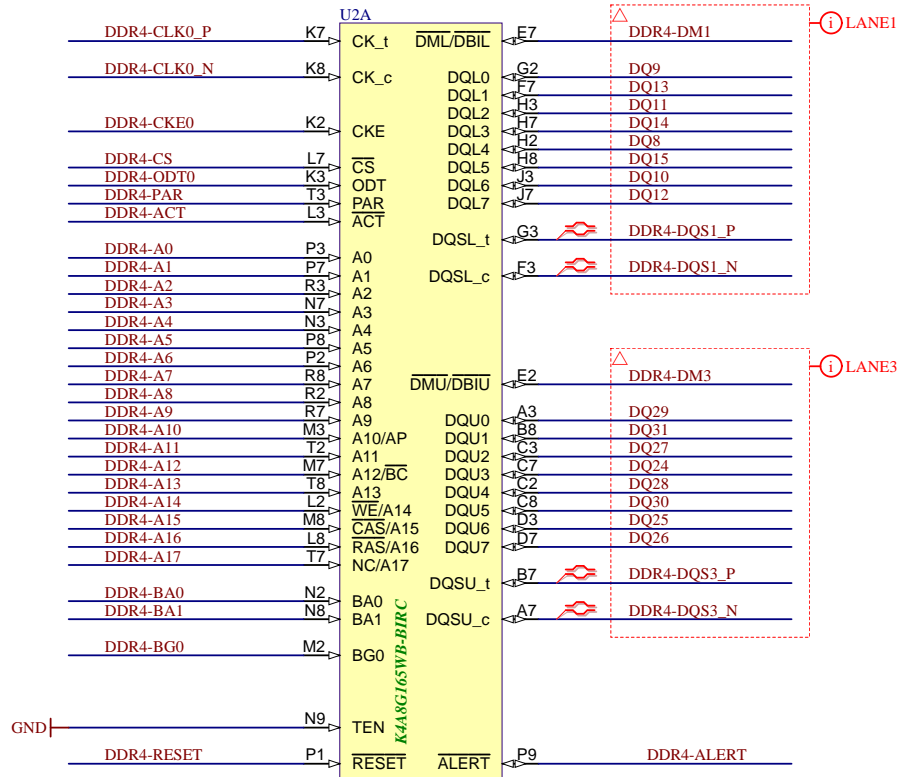
B

C

C

D

D



Title: TE0807 - DDR4_1_RAM		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page18 of 28
Filename: DDR4-RAM.SchDoc		

1

2

3

4

1

2

3

4

A

A

B

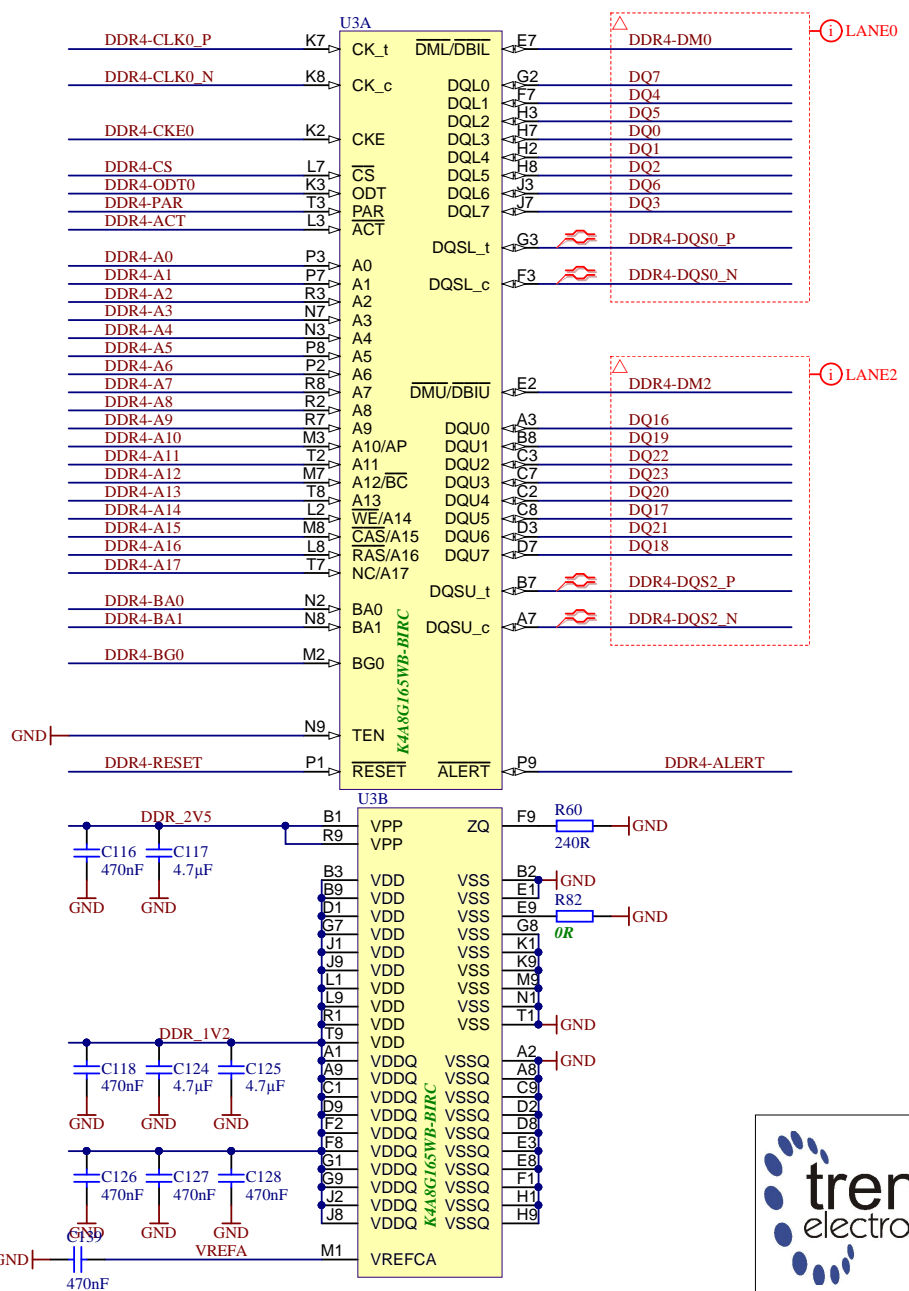
B

C

C

D

D



Title: TE0807 - DDR4_2_RAM		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 19 of 28
Filename: DDR4-RAM_2.SchDoc		

1

2

3

4

1

2

3

4

A

A

B

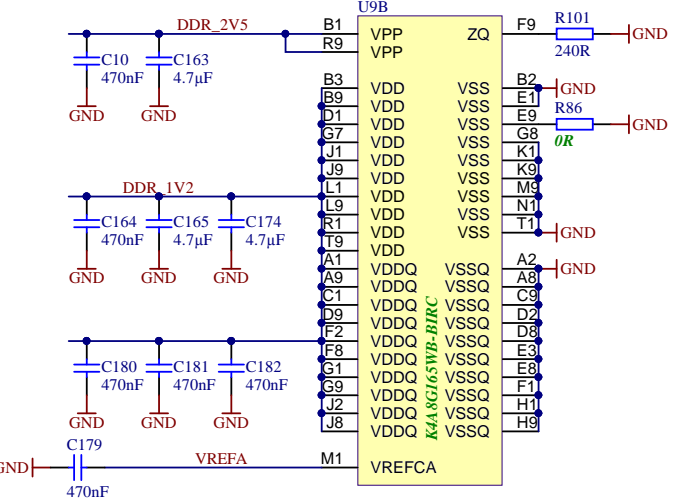
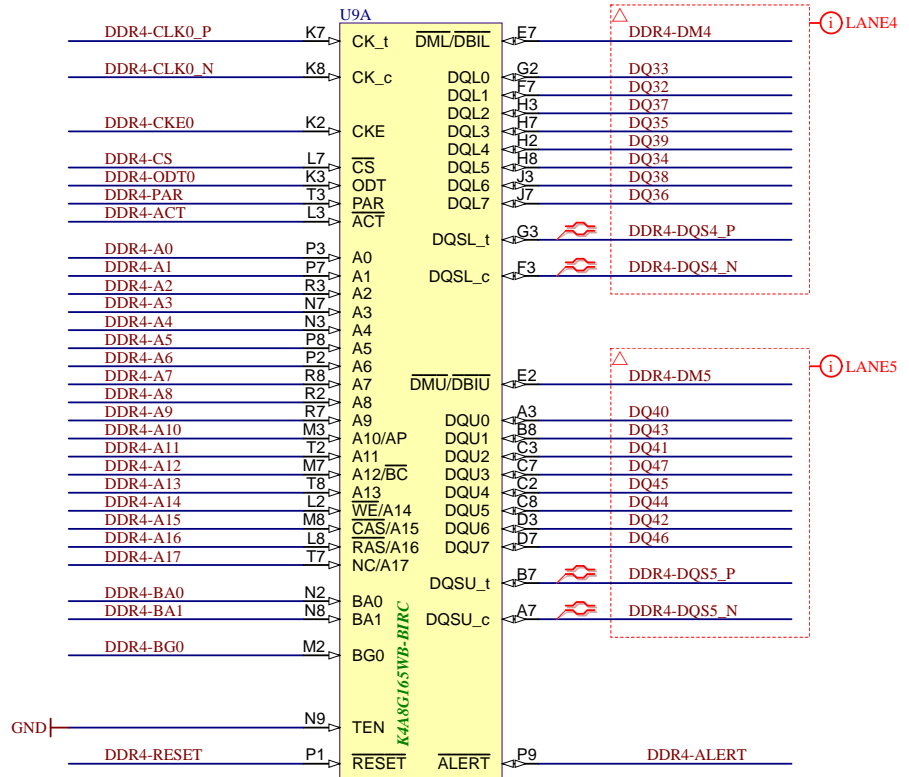
B

C

C

D

D



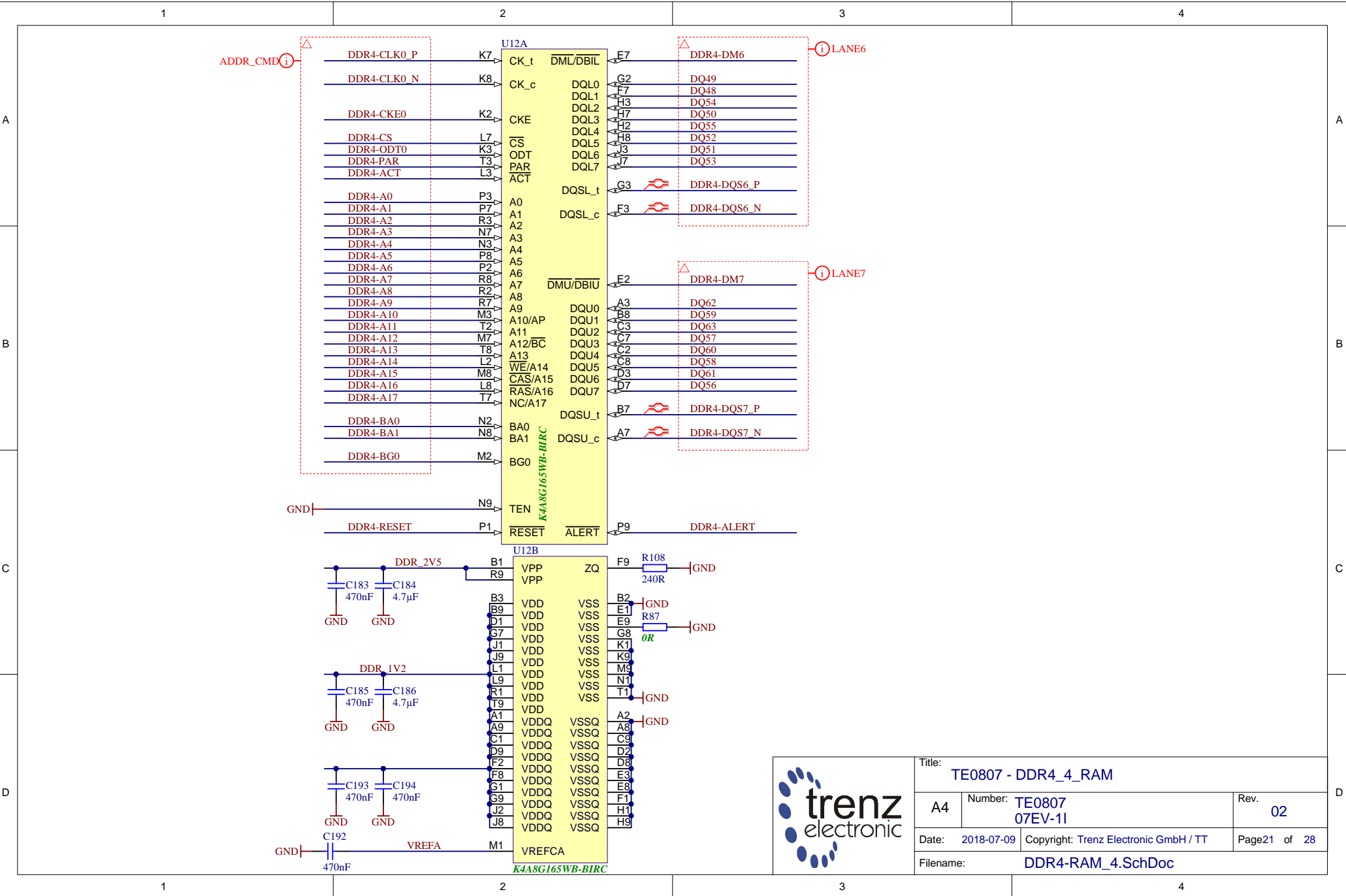
Title: TE0807 - DDR4_3_RAM		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page20 of 28
Filename: DDR4-RAM_3.SchDoc		

1

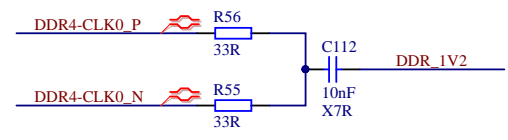
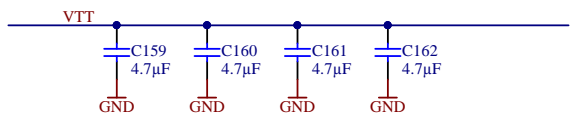
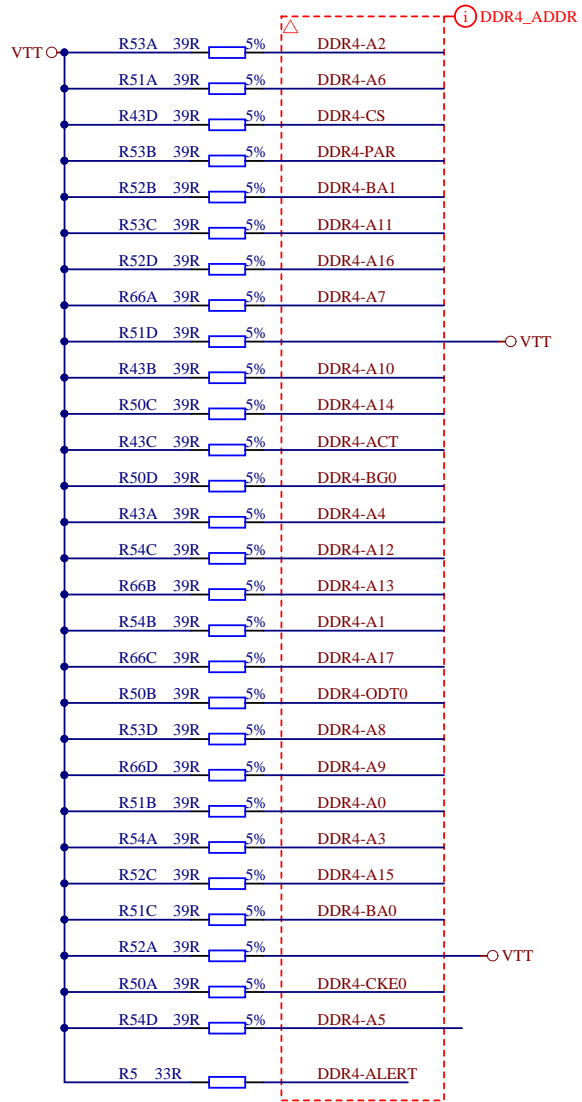
2


3

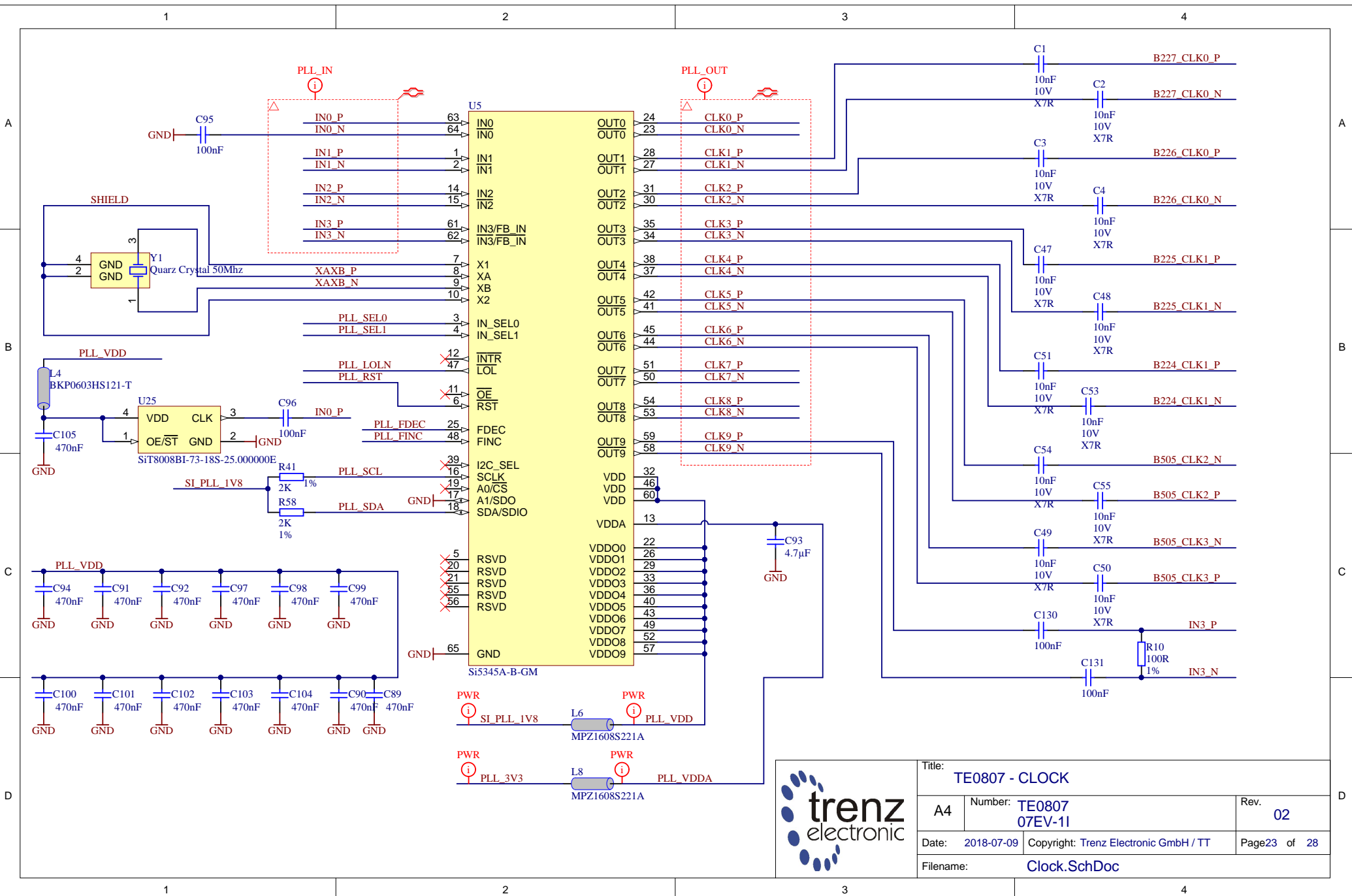

4



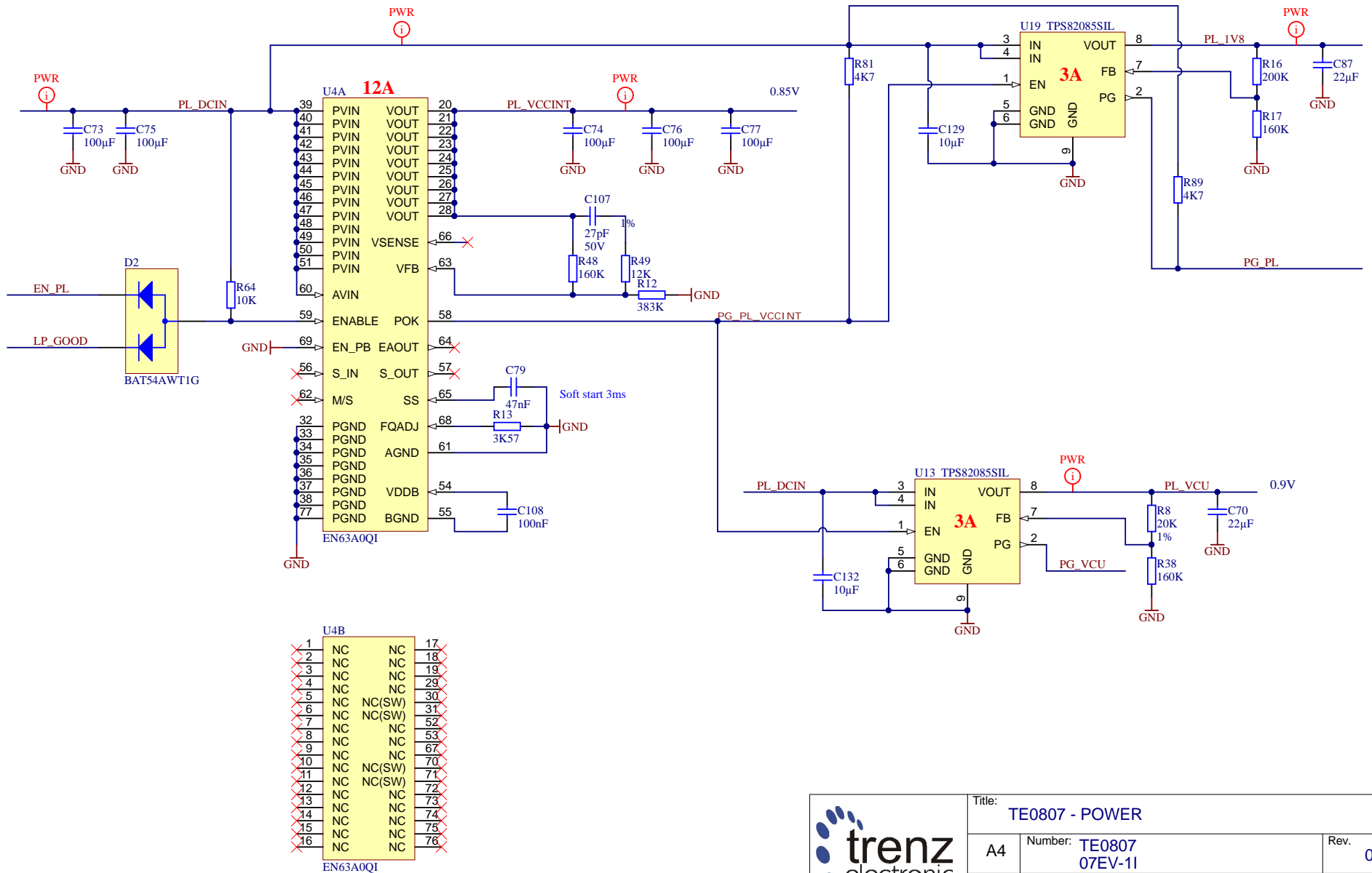
Title: TE0807 - DDR4_4_RAM		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page21 of 28
Filename: DDR4-RAM_4.SchDoc		



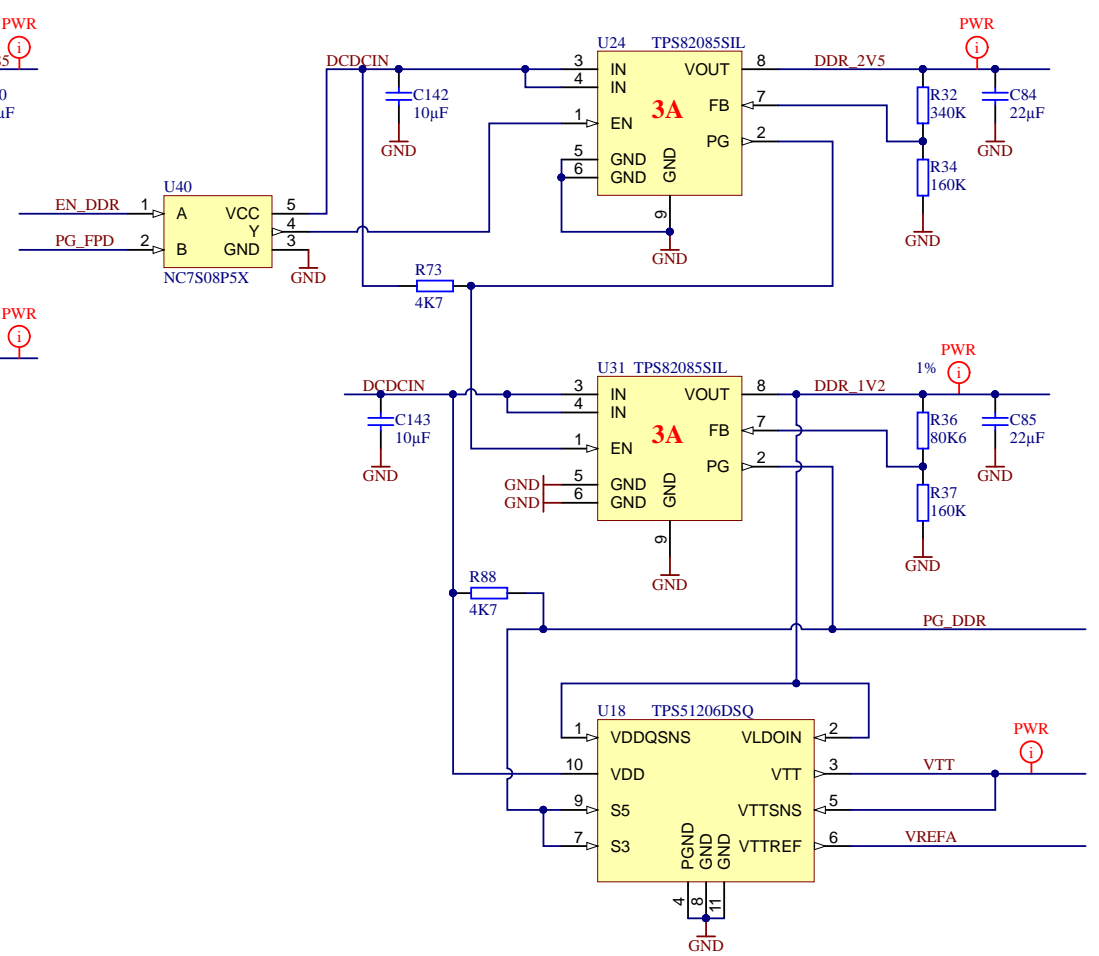
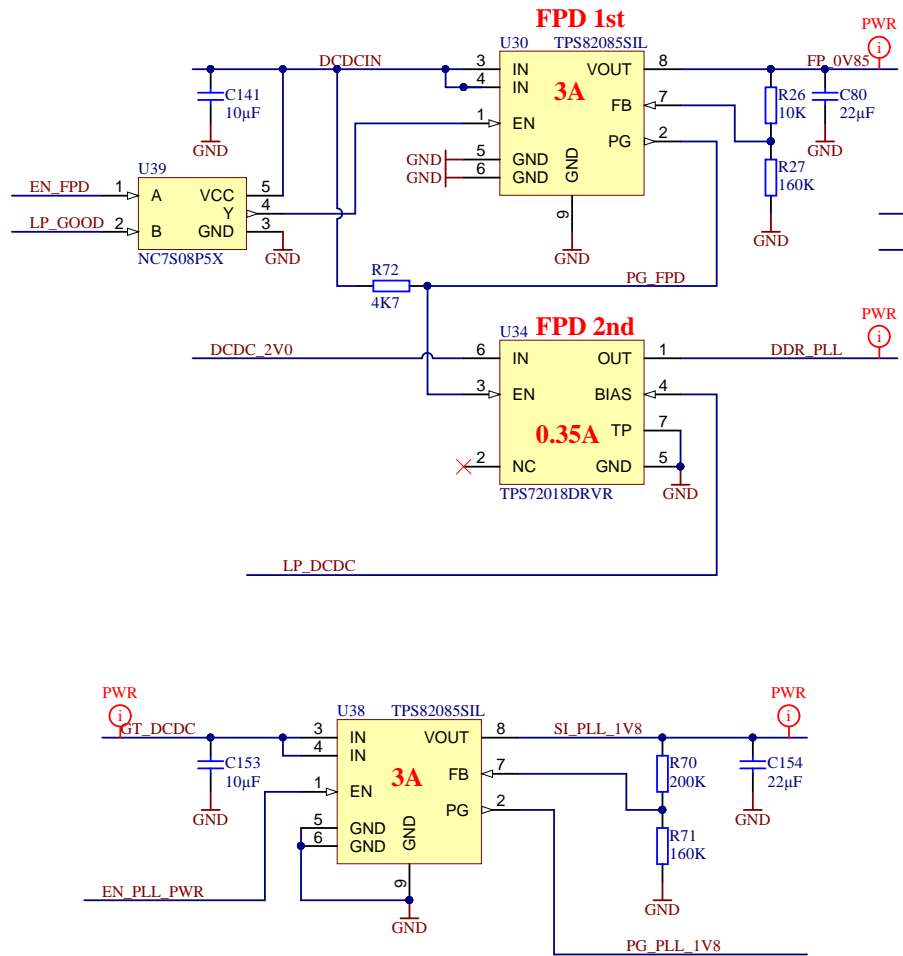
		Title: TE0807 - DDR4_TERM	
		A4	Number: TE0807 07EV-1I
Date: 2018-07-09		Copyright: Trenz Electronic GmbH / TT	
Filename: DDR4-TERM.SchDoc		Page22 of 28	

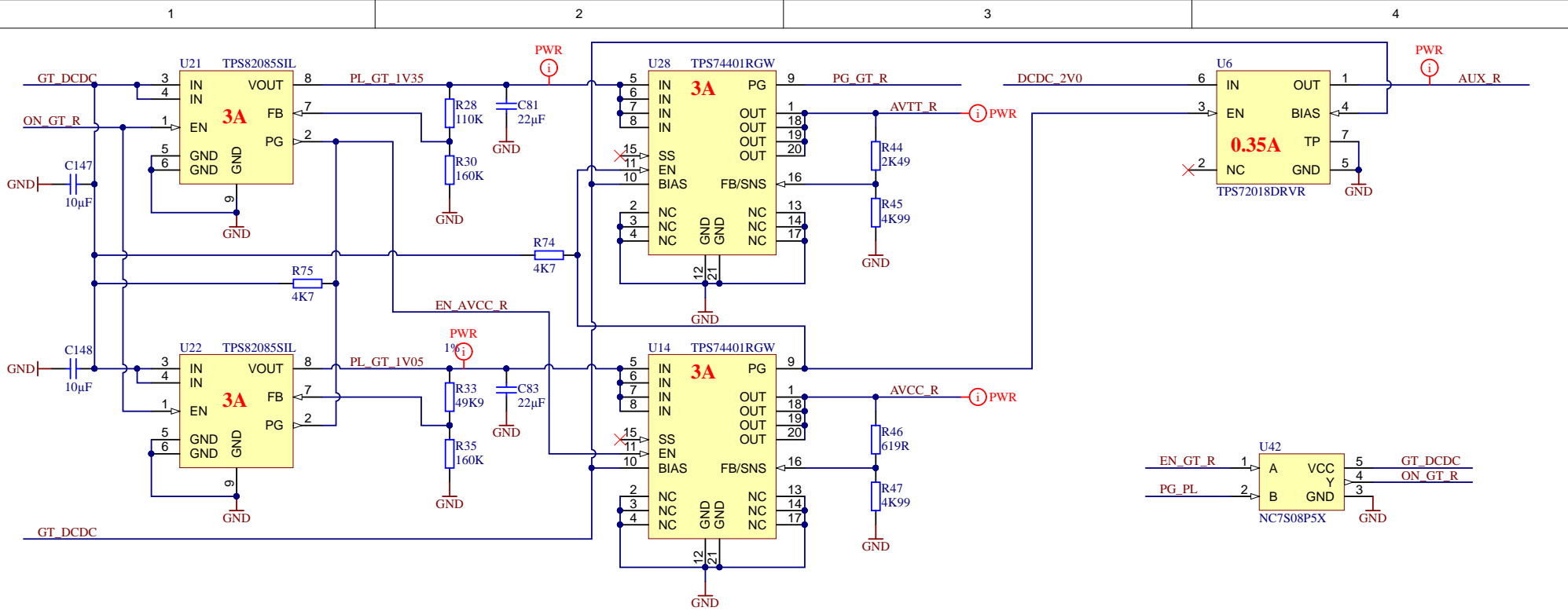
Title: TE0807 - CLOCK		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page23 of 28
Filename: Clock.SchDoc		



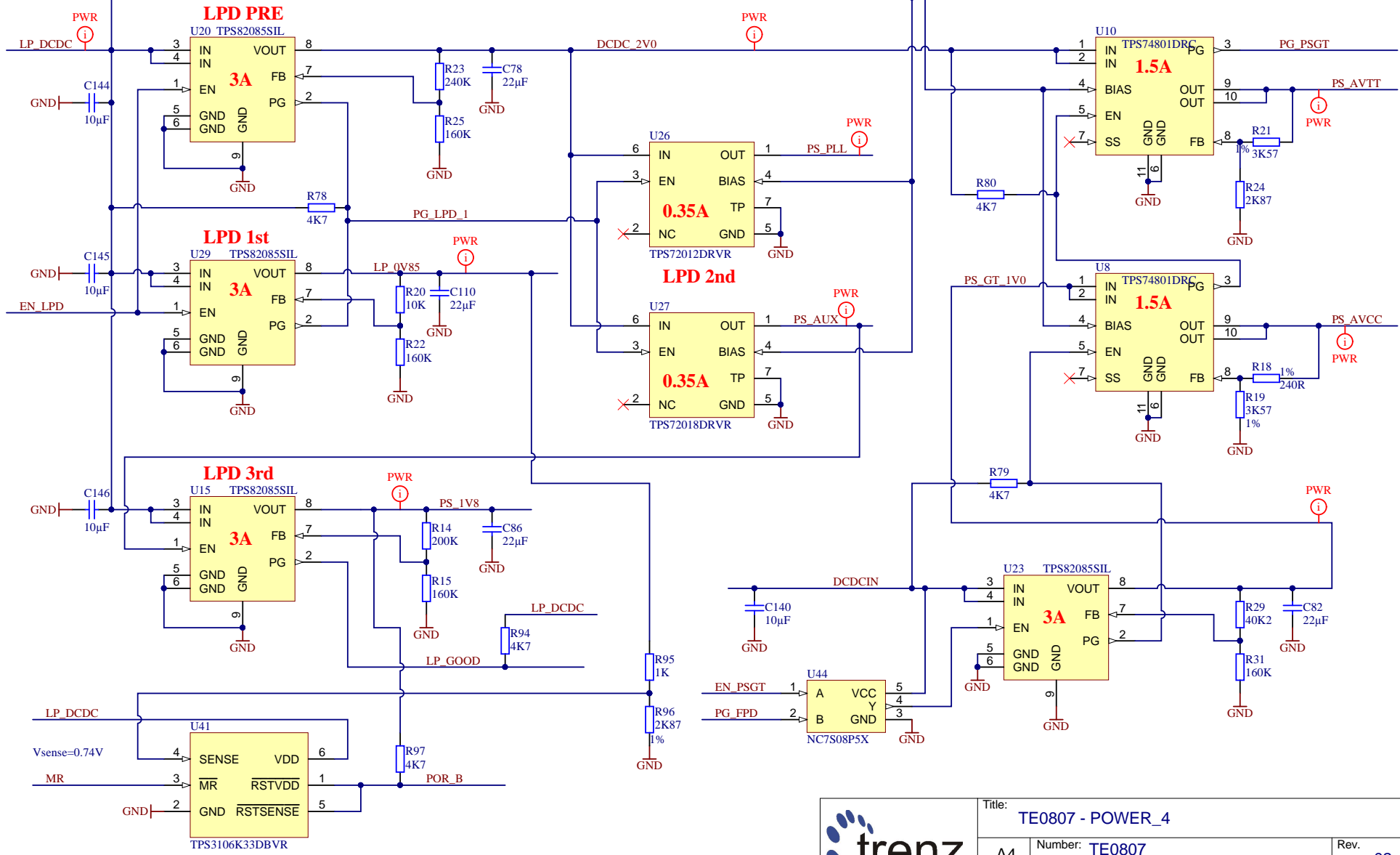
Title: TE0807 - POWER		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page 24 of 28
Filename: POWER.SchDoc		




	Title: TE0807 - POWER_2	
	A4	Number: TE0807 07EV-11
	Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT
	Rev. 02	Page 25 of 28
Filename: POWER_2.SchDoc		



Title: TE0807 - POWER_3		
A4	Number: TE0807 07EV-11	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH / TT	Page26 of 28
Filename: POWER_3.SchDoc		



			Title: TE0807 - POWER_4	
			A4	Number: TE0807 07EV-11
Date: 2018-07-09		Copyright: Trenz Electronic GmbH / TT		Page27 of 28
Filename: POWER_4.SchDoc				

1

2

3

4

CHANGES REV01 to REV02

- 1) Added EEPROM (U11,24AA025E48T-I/OT)
- 2) Added optional resistors R39/R40 for QSPI flash (do not populated)
- 3) Fixed VCU connection (added additional DCDC and capacitors), recommendation from Xilinx
- 4) Changed obsolete DDR4 chips (NT5AD256M16B2-GN -> K4A8G165WB-BIRC)
- 5) Added net "PG_VCU" to J2 (pin97)
- 6) full update lib

A

A

B

B

C

C

D

D



Title: TE0807 - Changes list		
A4	Number: TE0807 07EV-1I	Rev. 02
Date: 2018-07-09	Copyright: Trenz Electronic GmbH	Page28 of 28
Filename: Revision_Changes.SchDoc		

1

2

3

4