

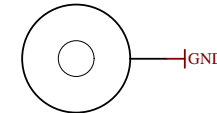
1

2

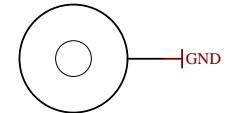
3

4

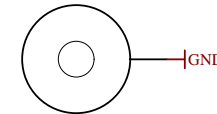
| | | |
|---------------------------------|-----------------------------------|-------------------------------------|
| U_J1 J1.SchDoc | U_B_PS_GT B_PS_GT.SchDoc | U_DDR4-TERM DDR4-TERM.SchDoc |
| U_J2 J2.SchDoc | U_PS_DDR PS_DDR.SchDoc | U_ZU_POWER ZU_POWER.SchDoc |
| U_J3 J3.SchDoc | U_B_MIO B_MIO.SchDoc | 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_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_REV_CH Revision_Changes.SchDoc |
| U_B_GT B_GT.SchDoc | U_DDR4-RAM_3 DDR4-RAM_3.SchDoc | |
| | U_DDR4-RAM_4 DDR4-RAM_4.SchDoc | |



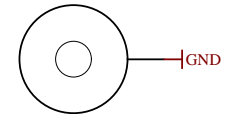
Mount.Hole 3.2mm für Unterlegscheibe



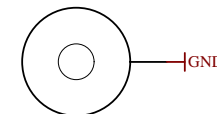
Mount.Hole 3.2mm für Unterlegscheibe



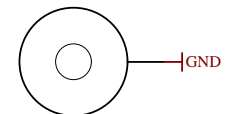
Mount.Hole 3.2mm für Unterlegscheibe



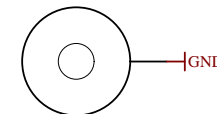
Mount.Hole 3.2mm für Unterlegscheibe



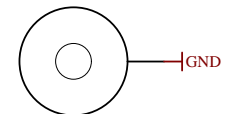
Mount.Hole 3.2mm für Unterlegscheibe



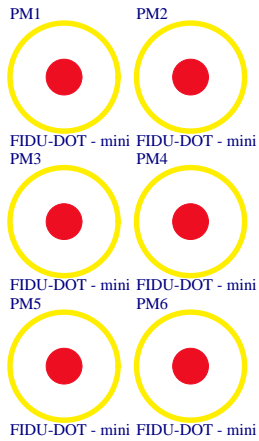
Mount.Hole 3.2mm für Unterlegscheibe



Mount.Hole 3.2mm für Unterlegscheibe

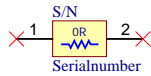


Mount.Hole 3.2mm für Unterlegscheibe



LOGO1
TE Logo PRINT Layer
LOGO PRINT

Serial
Serial
Serialnumber 6,3 x 6.3mm



| | | |
|-------------------------|---------------------------------------|-------------|
| Title: TE0803 | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page1 of 26 |
| Filename: TE0803.SchDoc | | |

1

2

3

4

A

A

B

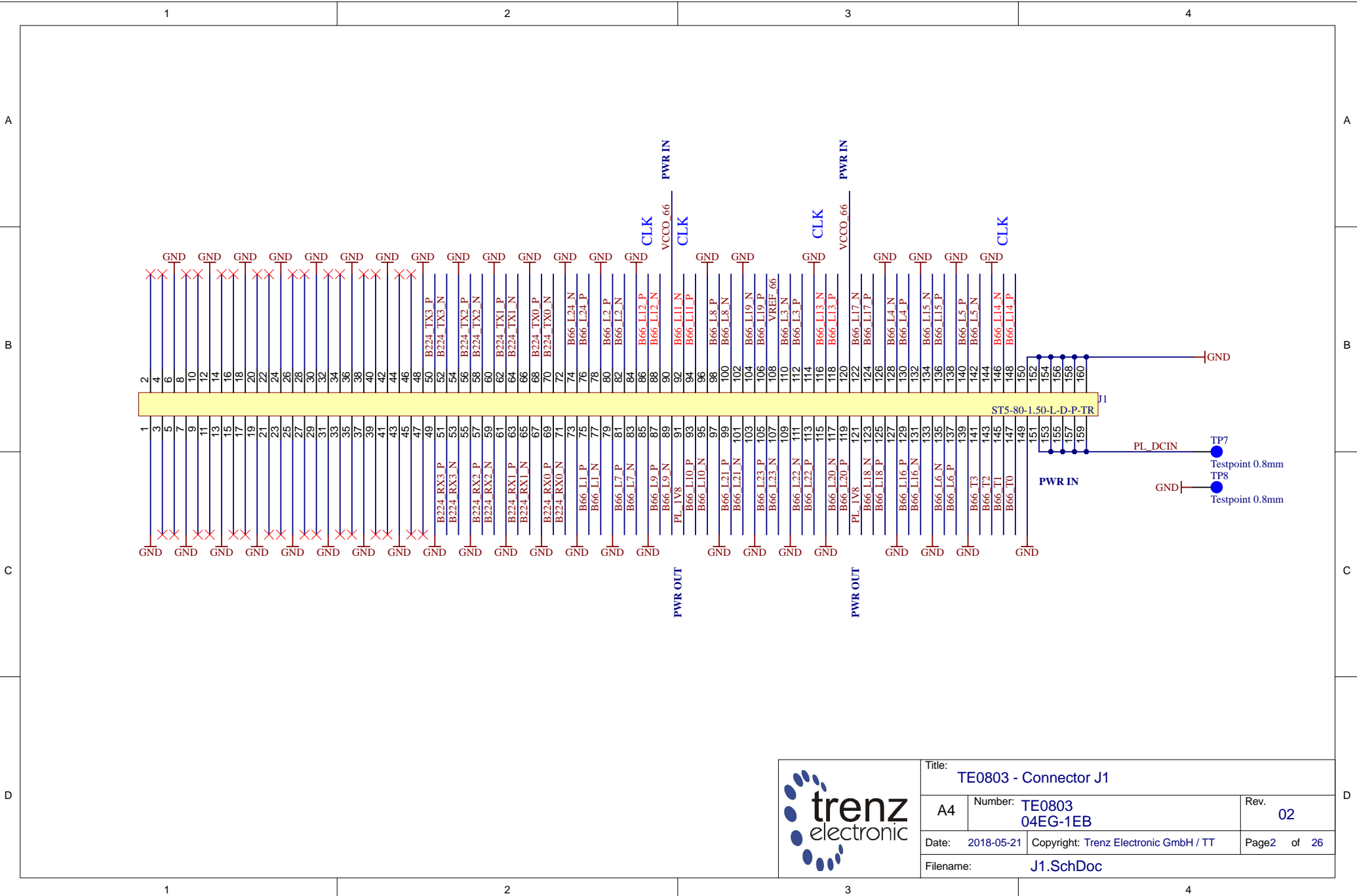
B

C

C

D

D



| | | |
|------------------------------|---------------------------------------|-------------|
| Title: TE0803 - Connector J1 | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page2 of 26 |
| Filename: J1.SchDoc | | |

1

2

3

4

A

A

B

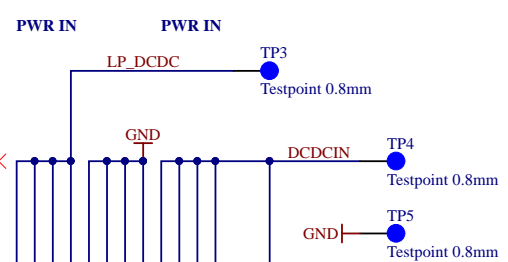
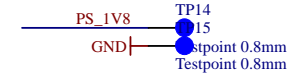
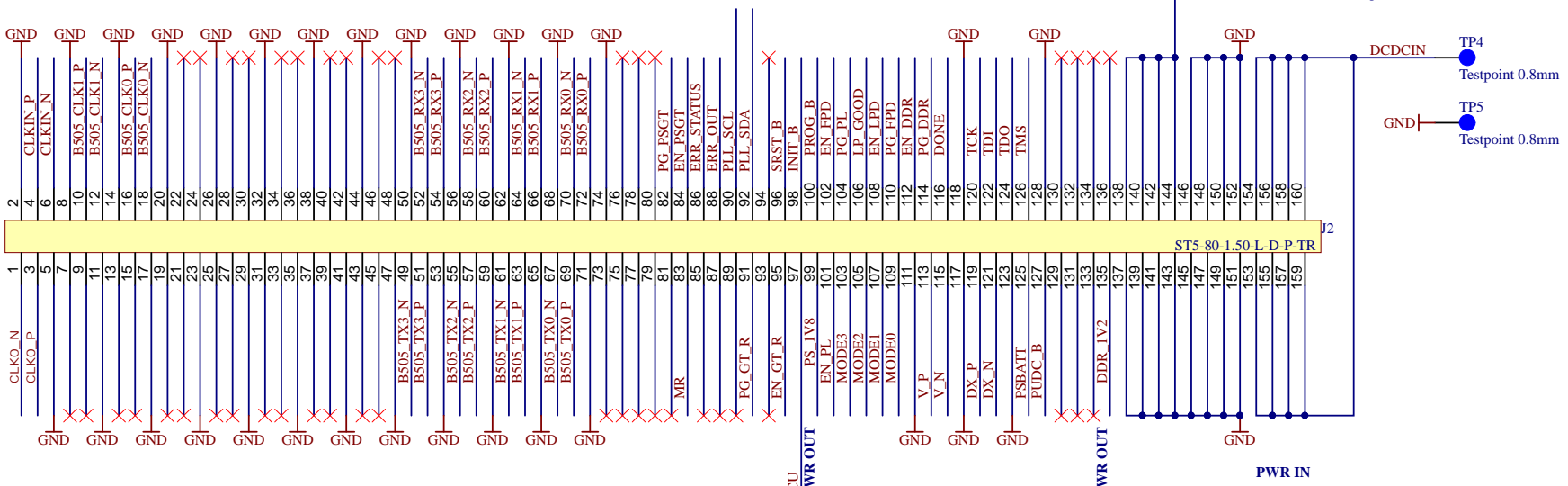
B

C

C

D

D



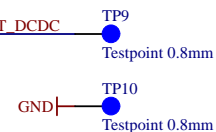
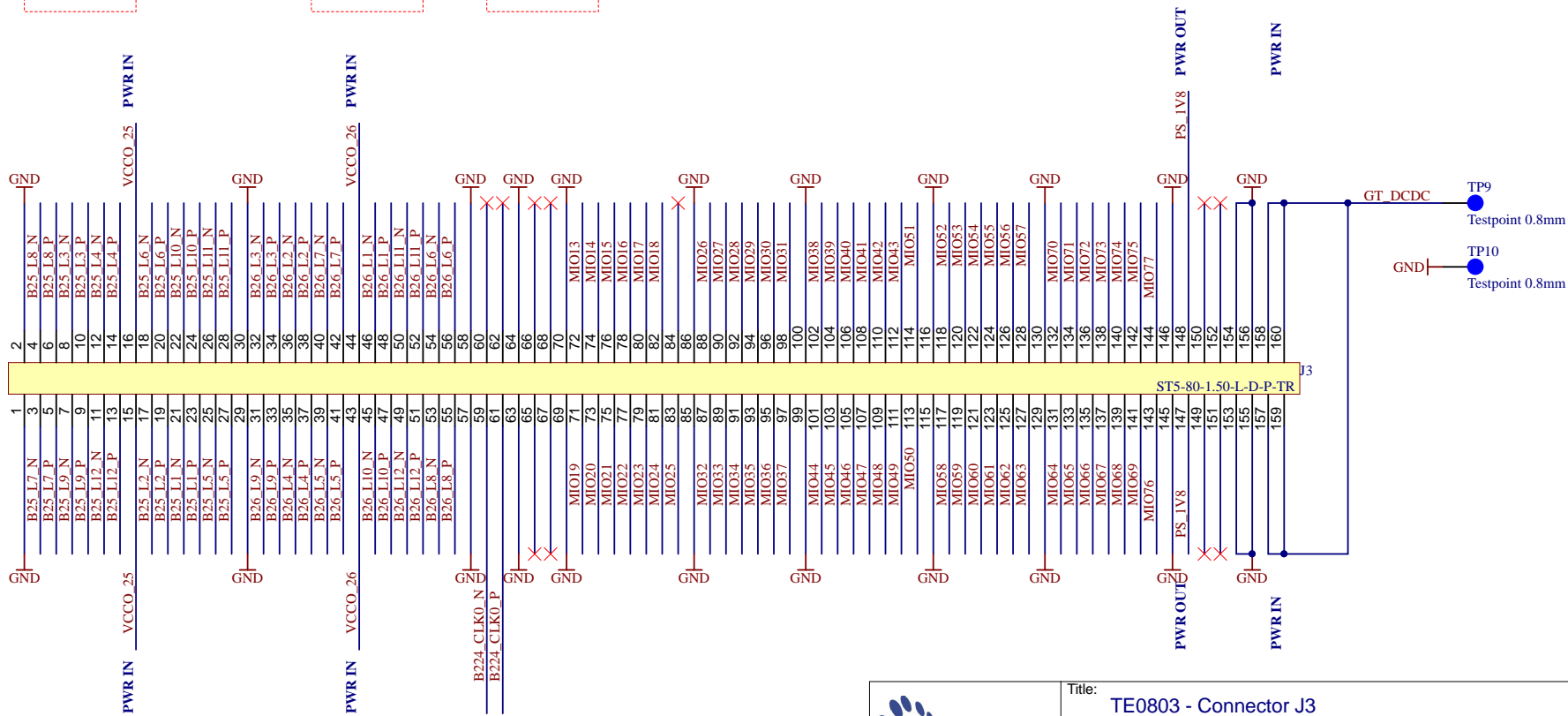
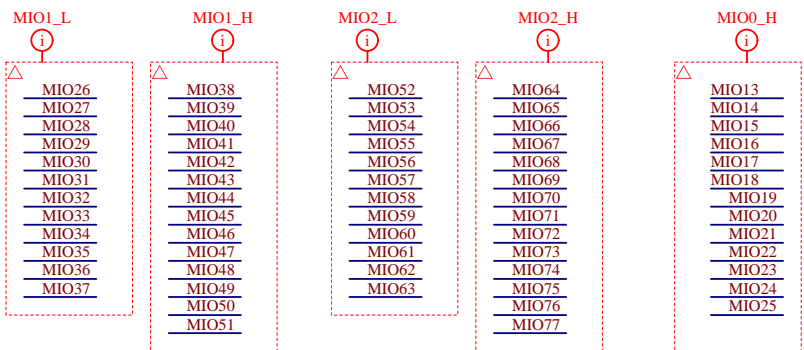
| | | |
|------------------------------|---------------------------------------|-------------|
| Title: TE0803 - Connector J2 | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page3 of 26 |
| Filename: J2.SchDoc | | |


1

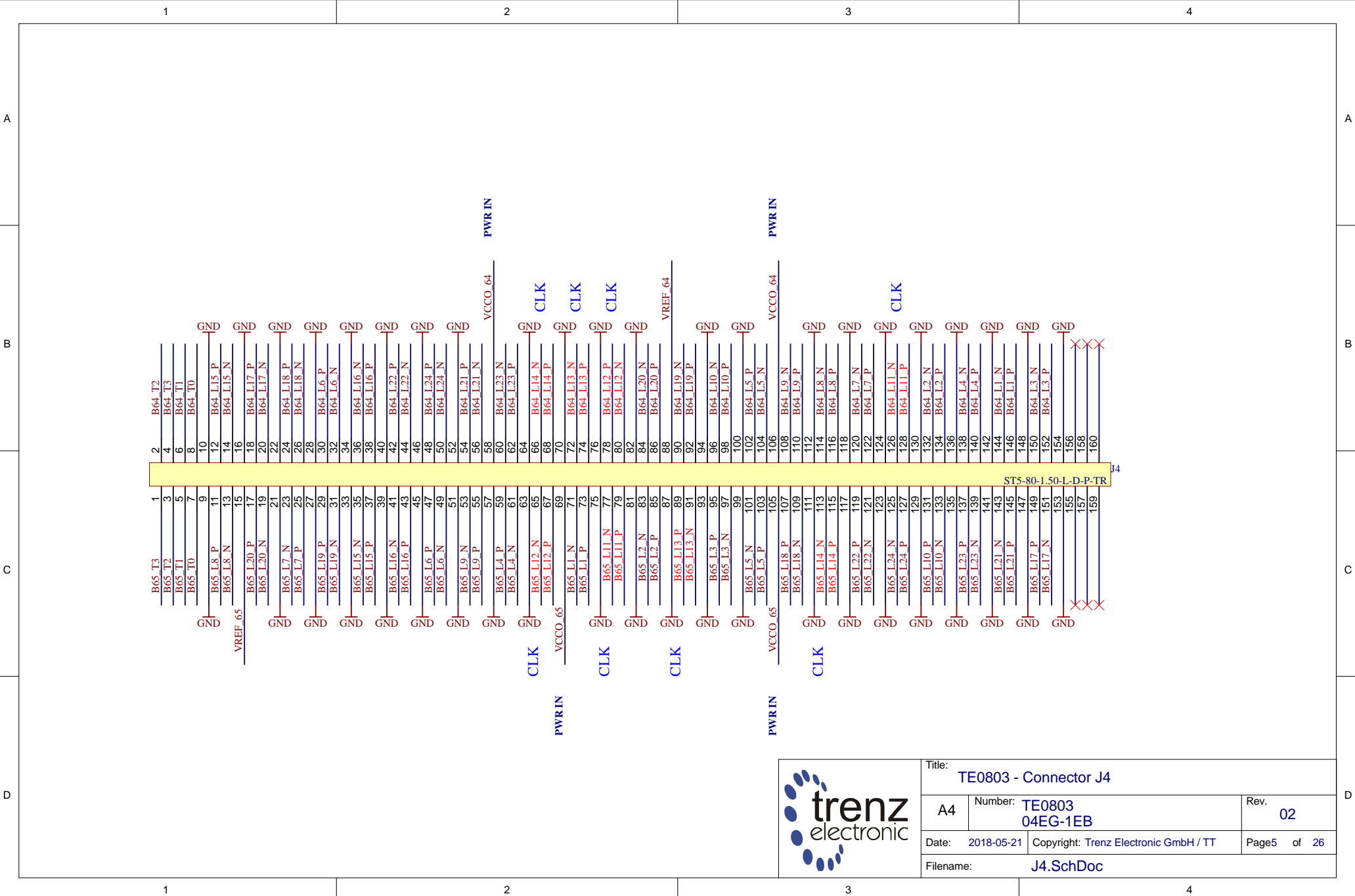
2

3

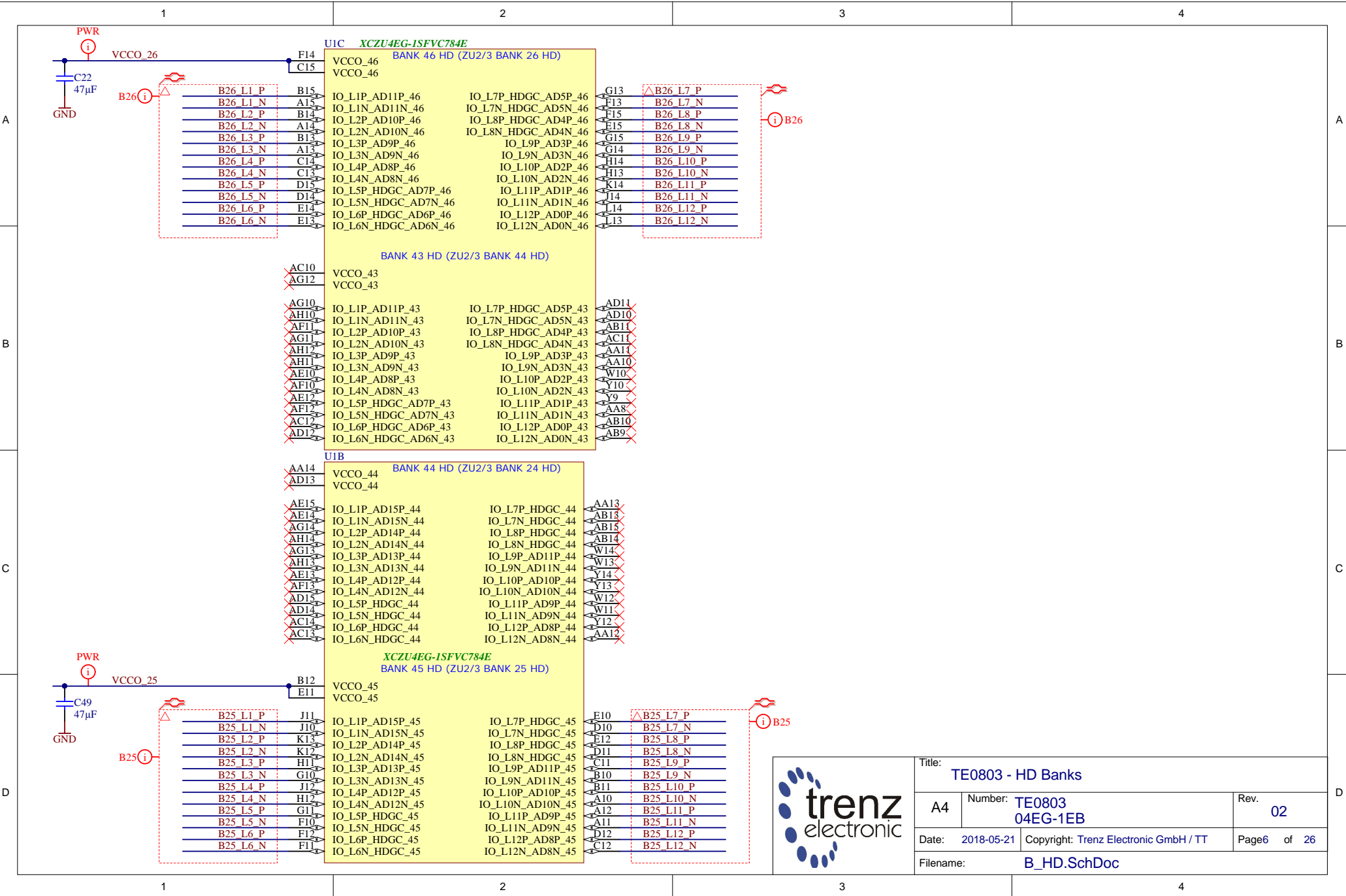
4



| | | | | |
|---|--|---------------------------------------|------------------------------|----------------------------|
|  | | | Title: TE0803 - Connector J3 | |
| | | | A4 | Number: TE0803 04EG-1EB |
| Date: 2018-05-21 | | Copyright: Trenz Electronic GmbH / TT | | Page4 of 26 |
| Filename: J3.SchDoc | | | | |



| | | |
|------------------------------|---------------------------------------|-------------|
| Title: TE0803 - Connector J4 | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page5 of 26 |
| Filename: J4.SchDoc | | |



UIC XCZU4EG-1SFVC784E
BANK 46 HD (ZU2/3 BANK 26 HD)

| | | |
|---------|-------------------------------|---------------------|
| VCCO_46 | BANK 46 HD (ZU2/3 BANK 26 HD) | |
| VCCO_46 | | |
| F14 | IO_L1P_AD11P_46 | IO_L7P_HDGC_AD5P_46 |
| C15 | IO_L1N_AD11N_46 | IO_L7N_HDGC_AD5N_46 |
| | IO_L2P_AD10P_46 | IO_L8P_HDGC_AD4P_46 |
| | IO_L2N_AD10N_46 | IO_L8N_HDGC_AD4N_46 |
| | IO_L3P_AD9P_46 | IO_L9P_AD3P_46 |
| | IO_L3N_AD9N_46 | IO_L9N_AD3N_46 |
| | IO_L4P_AD8P_46 | IO_L10P_AD2P_46 |
| | IO_L4N_AD8N_46 | IO_L10N_AD2N_46 |
| | IO_L5P_HDGC_AD7P_46 | IO_L11P_AD1P_46 |
| | IO_L5N_HDGC_AD7N_46 | IO_L11N_AD1N_46 |
| | IO_L6P_HDGC_AD6P_46 | IO_L12P_AD0P_46 |
| | IO_L6N_HDGC_AD6N_46 | IO_L12N_AD0N_46 |

| | |
|-----|-----------|
| G13 | B26 L7 P |
| F13 | B26 L7 N |
| F15 | B26 L8 P |
| F15 | B26 L8 N |
| G15 | B26 L9 P |
| G14 | B26 L9 N |
| H14 | B26 L10 P |
| H13 | B26 L10 N |
| K14 | B26 L11 P |
| J14 | B26 L11 N |
| L14 | B26 L12 P |
| L13 | B26 L12 N |

BANK 43 HD (ZU2/3 BANK 44 HD)

| | | |
|------|---------------------|---------------------|
| AC10 | VCCO_43 | |
| AG12 | VCCO_43 | |
| AG10 | IO_L1P_AD11P_43 | IO_L7P_HDGC_AD5P_43 |
| AH10 | IO_L1N_AD11N_43 | IO_L7N_HDGC_AD5N_43 |
| AF11 | IO_L2P_AD10P_43 | IO_L8P_HDGC_AD4P_43 |
| AG11 | IO_L2N_AD10N_43 | IO_L8N_HDGC_AD4N_43 |
| AH12 | IO_L3P_AD9P_43 | IO_L9P_AD3P_43 |
| AH11 | IO_L3N_AD9N_43 | IO_L9N_AD3N_43 |
| AE10 | IO_L4P_AD8P_43 | IO_L10P_AD2P_43 |
| AF10 | IO_L4N_AD8N_43 | IO_L10N_AD2N_43 |
| AE12 | IO_L5P_HDGC_AD7P_43 | IO_L11P_AD1P_43 |
| AF12 | IO_L5N_HDGC_AD7N_43 | IO_L11N_AD1N_43 |
| AC12 | IO_L6P_HDGC_AD6P_43 | IO_L12P_AD0P_43 |
| AD12 | IO_L6N_HDGC_AD6N_43 | IO_L12N_AD0N_43 |

| | |
|------|--|
| AD11 | |
| AD10 | |
| AB11 | |
| AC11 | |
| AA11 | |
| AA10 | |
| W10 | |
| Y10 | |
| Y9 | |
| AA8 | |
| AB10 | |
| AB9 | |

UIB
BANK 44 HD (ZU2/3 BANK 24 HD)

| | | |
|------|-----------------|------------------|
| AA14 | VCCO_44 | |
| AD13 | VCCO_44 | |
| AE15 | IO_L1P_AD15P_44 | IO_L7P_HDGC_44 |
| AE14 | IO_L1N_AD15N_44 | IO_L7N_HDGC_44 |
| AG14 | IO_L2P_AD14P_44 | IO_L8P_HDGC_44 |
| AH14 | IO_L2N_AD14N_44 | IO_L8N_HDGC_44 |
| AG13 | IO_L3P_AD13P_44 | IO_L9P_AD11P_44 |
| AH13 | IO_L3N_AD13N_44 | IO_L9N_AD11N_44 |
| AE13 | IO_L4P_AD12P_44 | IO_L10P_AD10P_44 |
| AF13 | IO_L4N_AD12N_44 | IO_L10N_AD10N_44 |
| AD15 | IO_L5P_HDGC_44 | IO_L11P_AD9P_44 |
| AD14 | IO_L5N_HDGC_44 | IO_L11N_AD9N_44 |
| AC14 | IO_L6P_HDGC_44 | IO_L12P_AD8P_44 |
| AC13 | IO_L6N_HDGC_44 | IO_L12N_AD8N_44 |

| | |
|------|--|
| AA13 | |
| AB13 | |
| AB15 | |
| AB14 | |
| W14 | |
| W13 | |
| Y14 | |
| Y13 | |
| W12 | |
| W11 | |
| Y12 | |
| AA12 | |

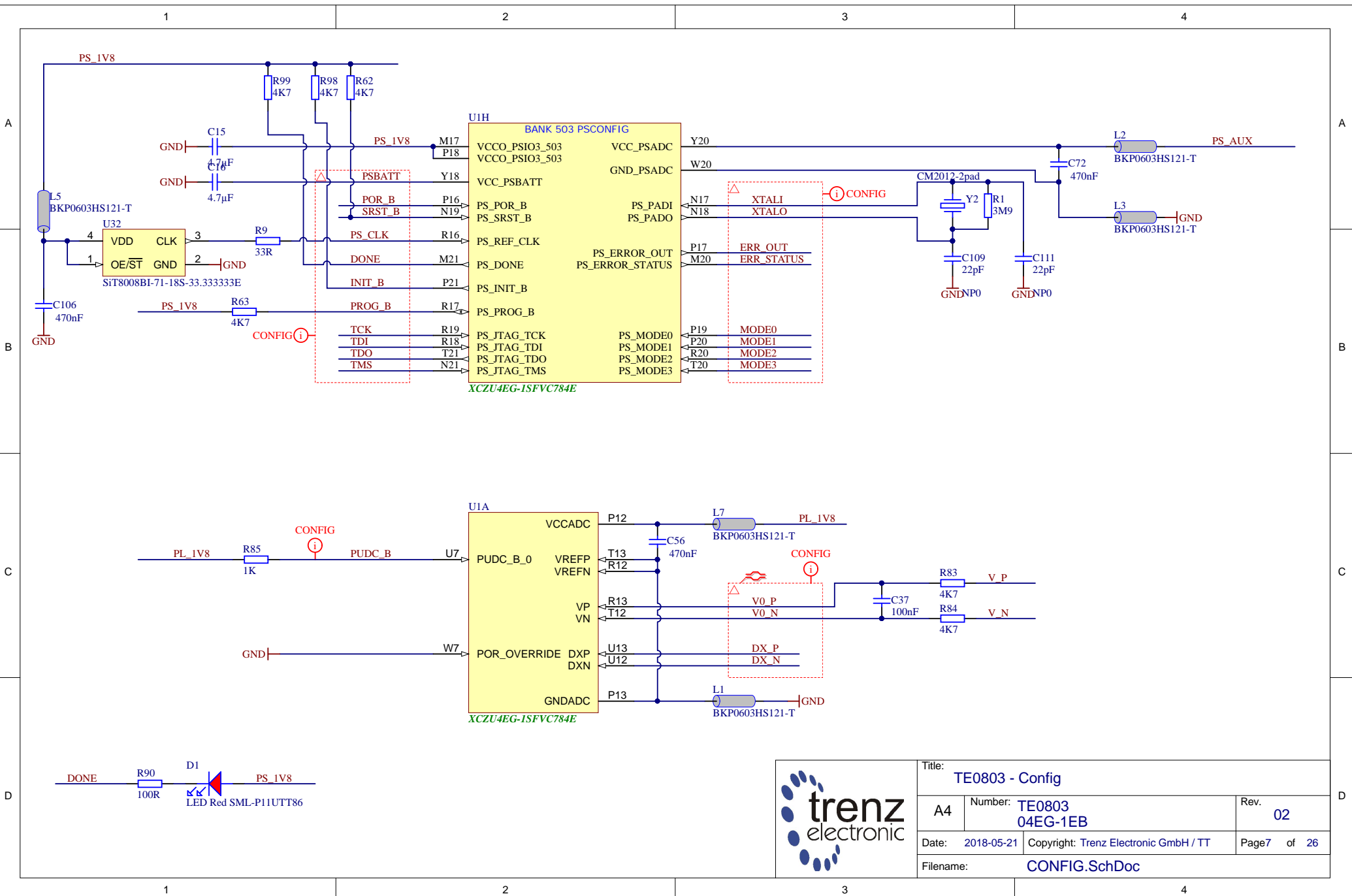
XCZU4EG-1SFVC784E
BANK 45 HD (ZU2/3 BANK 25 HD)

| | | |
|---------|-----------------|------------------|
| VCCO_45 | | |
| VCCO_45 | | |
| J11 | IO_L1P_AD15P_45 | IO_L7P_HDGC_45 |
| J10 | IO_L1N_AD15N_45 | IO_L7N_HDGC_45 |
| K13 | IO_L2P_AD14P_45 | IO_L8P_HDGC_45 |
| K12 | IO_L2N_AD14N_45 | IO_L8N_HDGC_45 |
| H11 | IO_L3P_AD13P_45 | IO_L9P_AD11P_45 |
| G10 | IO_L3N_AD13N_45 | IO_L9N_AD11N_45 |
| J12 | IO_L4P_AD12P_45 | IO_L10P_AD10P_45 |
| H12 | IO_L4N_AD12N_45 | IO_L10N_AD10N_45 |
| G11 | IO_L5P_HDGC_45 | IO_L11P_AD9P_45 |
| F10 | IO_L5N_HDGC_45 | IO_L11N_AD9N_45 |
| F12 | IO_L6P_HDGC_45 | IO_L12P_AD8P_45 |
| F11 | IO_L6N_HDGC_45 | IO_L12N_AD8N_45 |

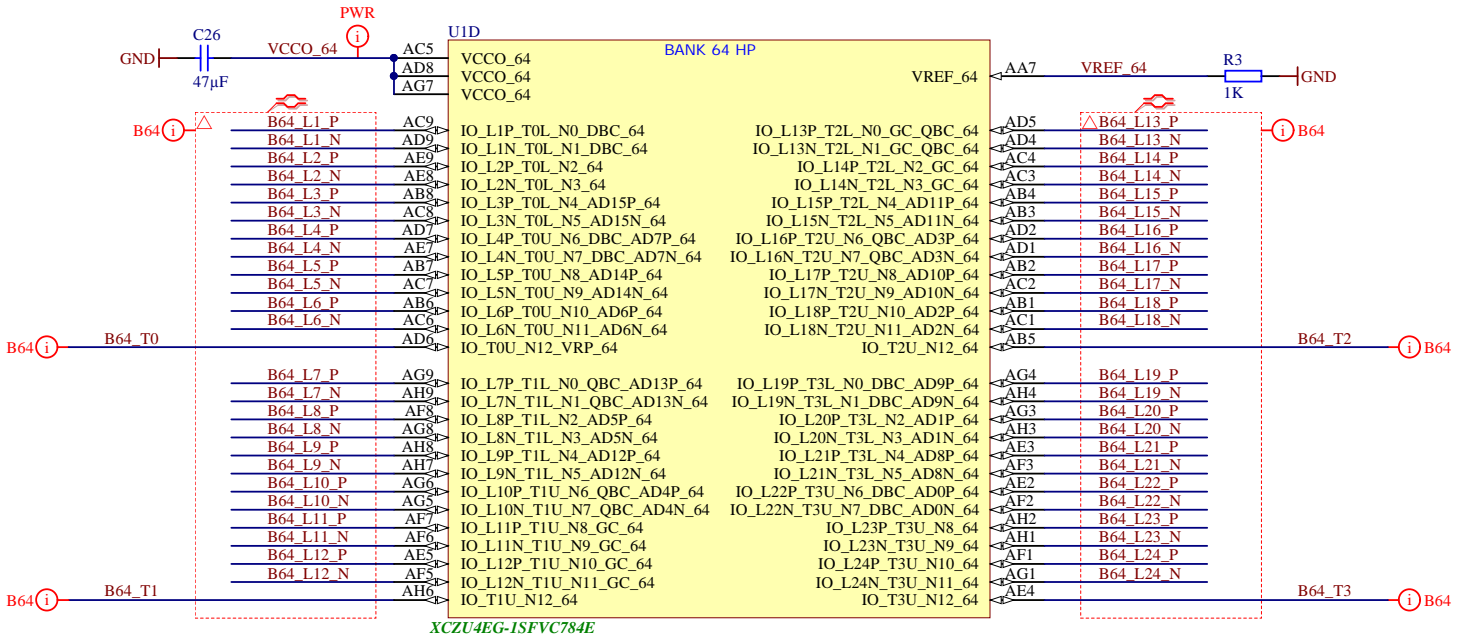
| | |
|-----|-----------|
| E10 | B25 L7 P |
| D10 | B25 L7 N |
| E12 | B25 L8 P |
| D11 | B25 L8 N |
| C11 | B25 L9 P |
| B10 | B25 L9 N |
| B11 | B25 L10 P |
| A10 | B25 L10 N |
| A12 | B25 L11 P |
| A11 | B25 L11 N |
| D12 | B25 L12 P |
| C12 | B25 L12 N |



| | | |
|--------------------------|---------------------------------------|-------------|
| Title: TE0803 - HD Banks | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page6 of 26 |
| Filename: B_HD.SchDoc | | |



| | | |
|-------------------------|---------------------------------------|--------------|
| Title: TE0803 - Config | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page 7 of 26 |
| Filename: CONFIG.SchDoc | | |



| | | | |
|--|----------------------|---------------------------------------|-------------|
| | Title: TE0803 - B64 | | |
| | A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| | Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page8 of 26 |
| | Filename: B64.SchDoc | | |

1

2

3

4

A

A

B

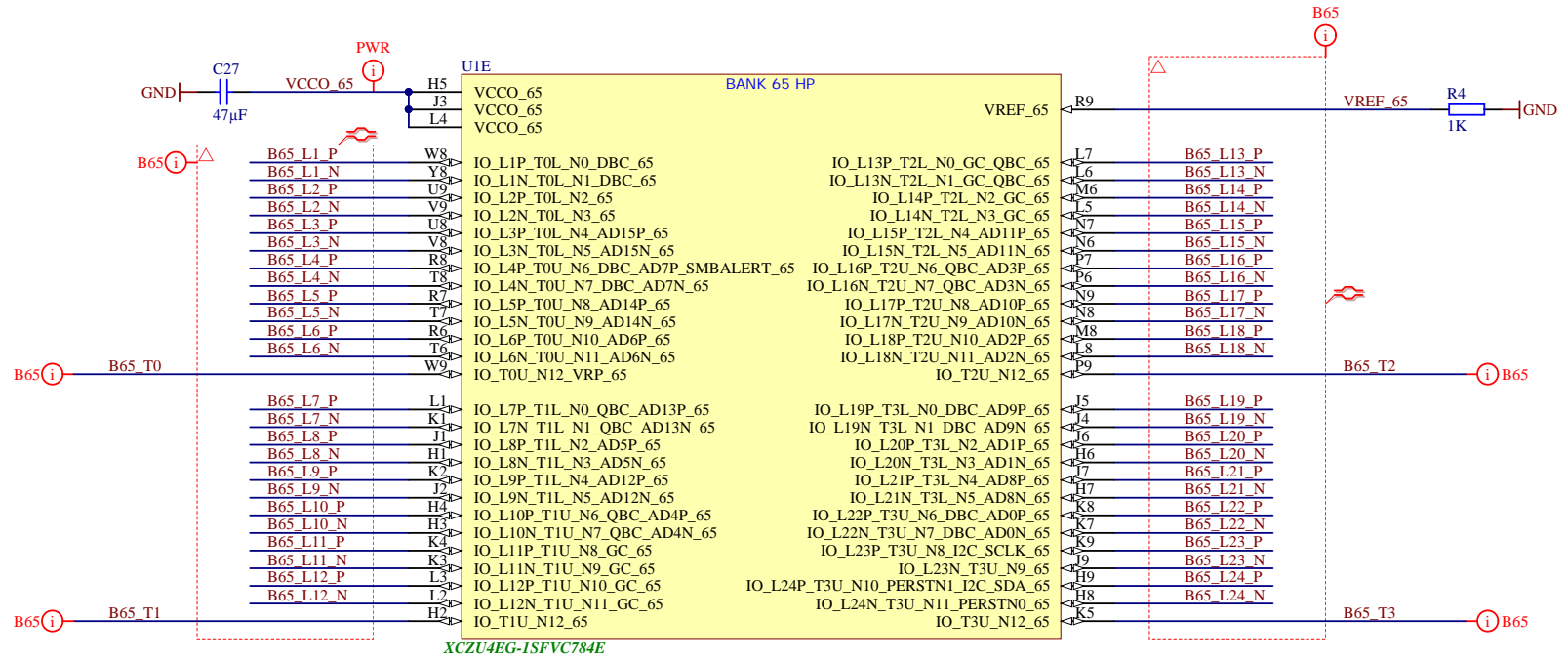
B

C

C

D

D



| | | | |
|--|-----------------------------|--|----------------------------|
| | Title: TE0803 - B65 | | |
| | A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| | Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page 9 of 26 |
| | Filename: B65.SchDoc | | |

1

2

3

4

1

2

3

4

A

A

B

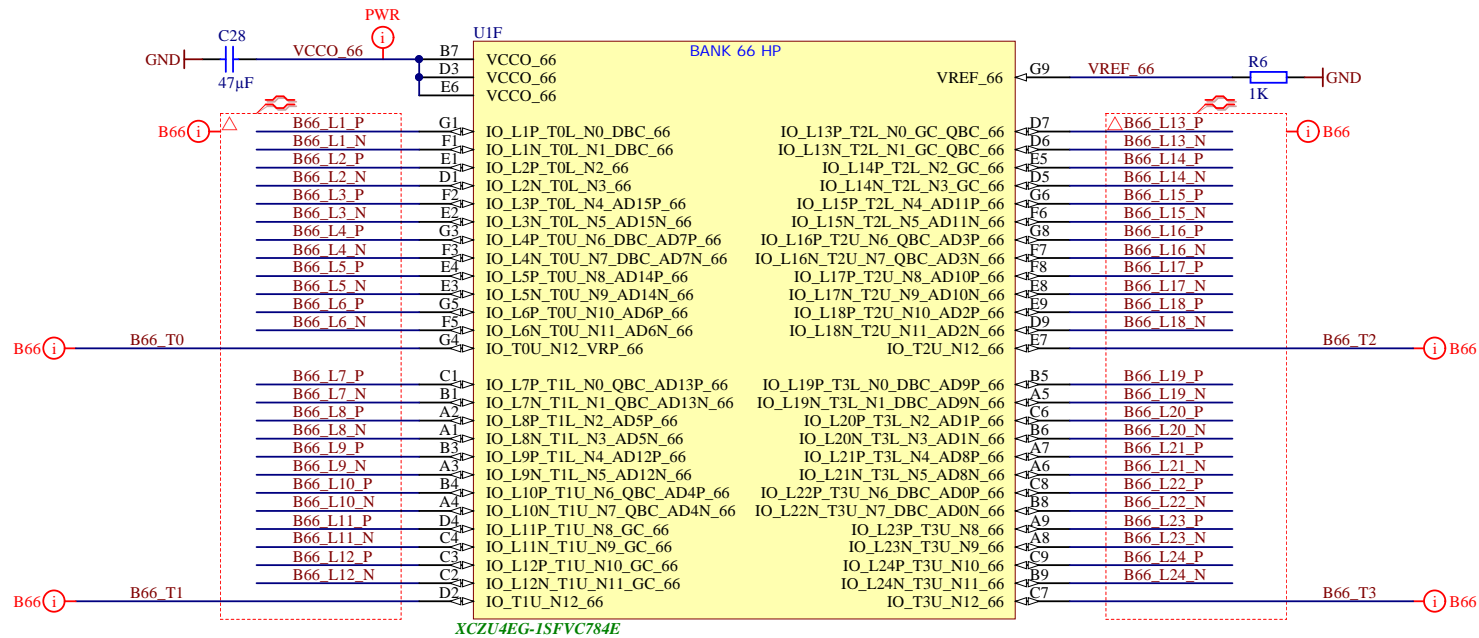
B

C

C

D

D



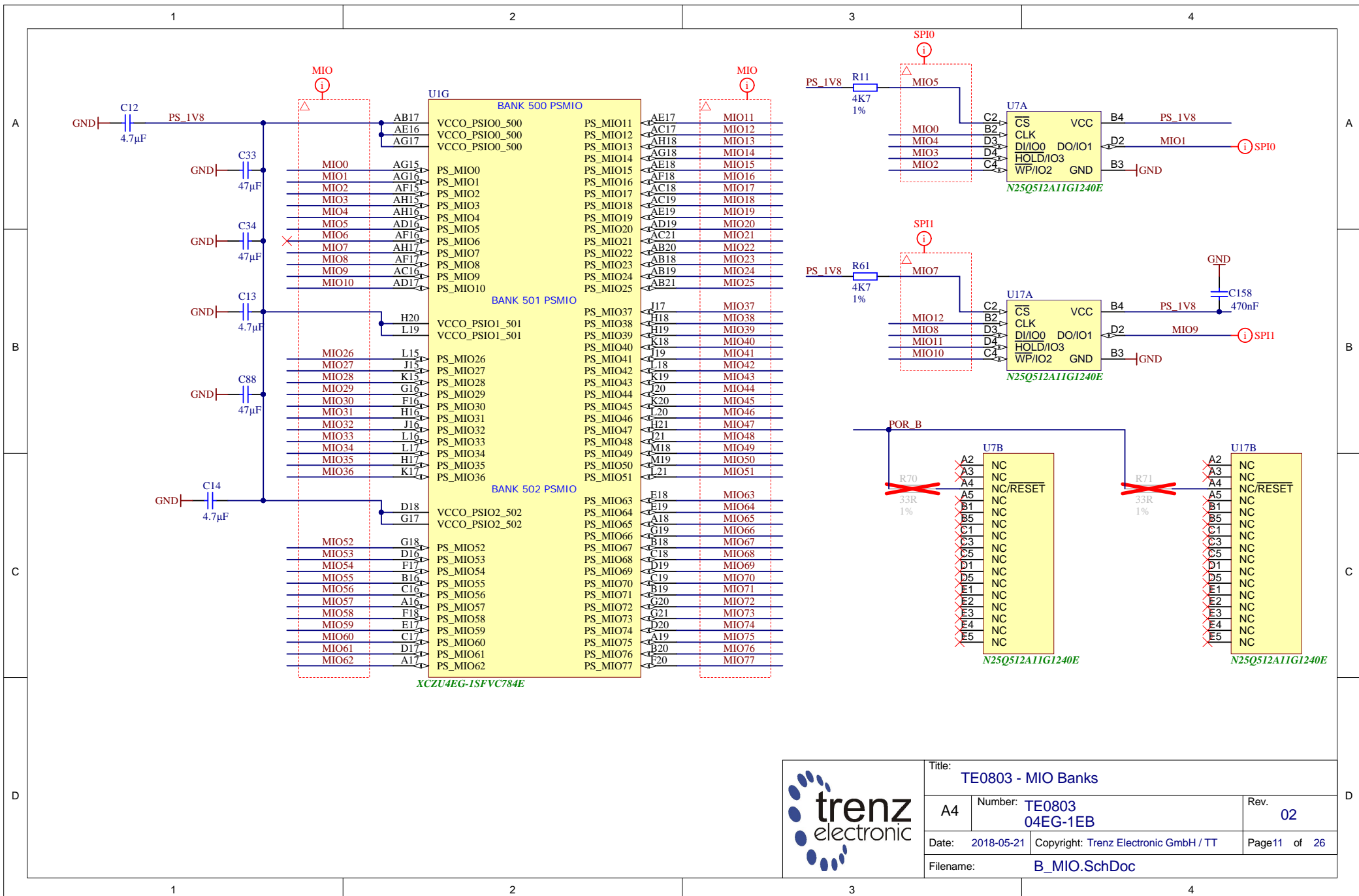
| | | |
|----------------------|---------------------------------------|--------------|
| Title: TE0803 - B66 | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page10 of 26 |
| Filename: B66.SchDoc | | |

1

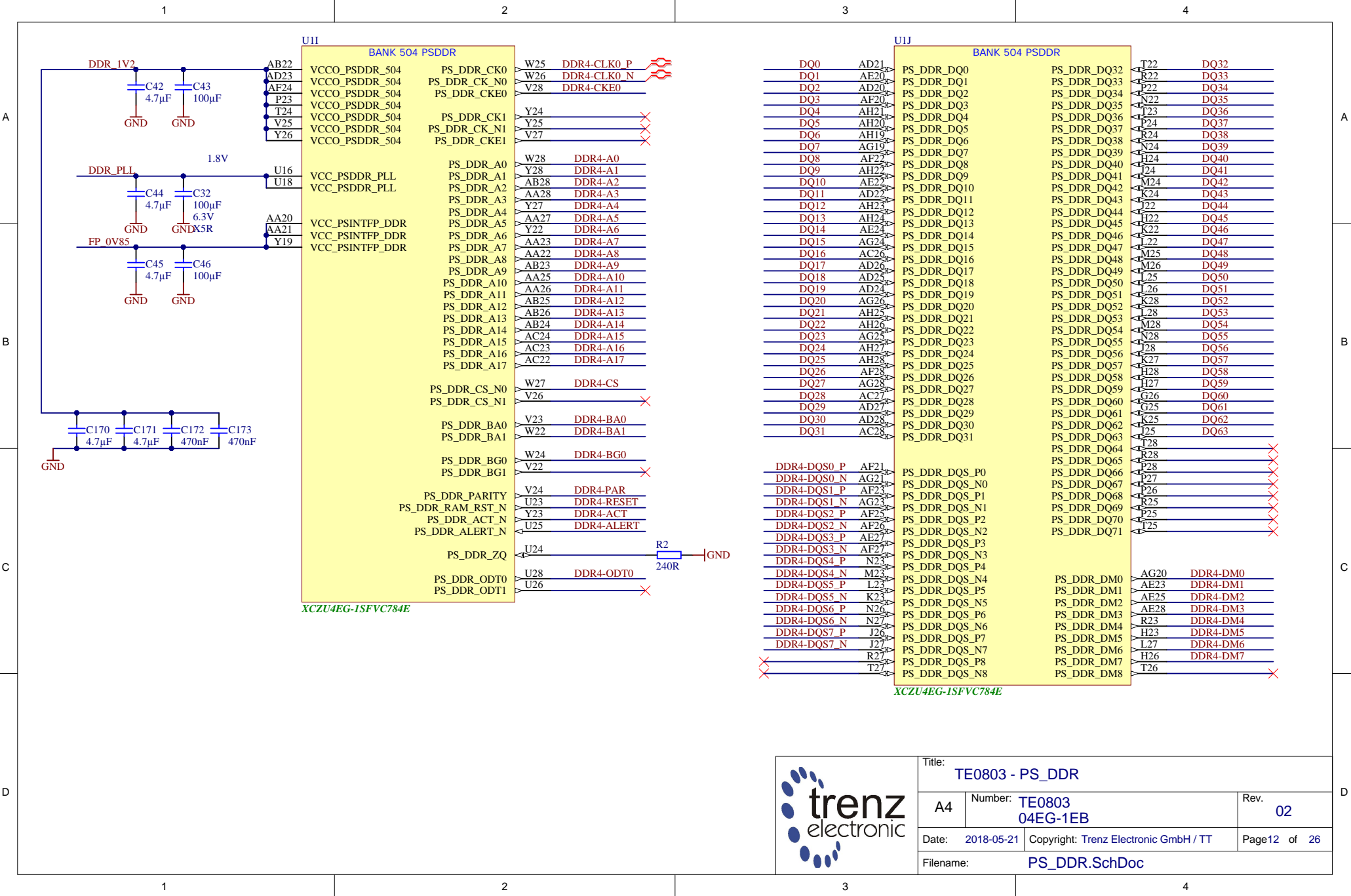
2

3

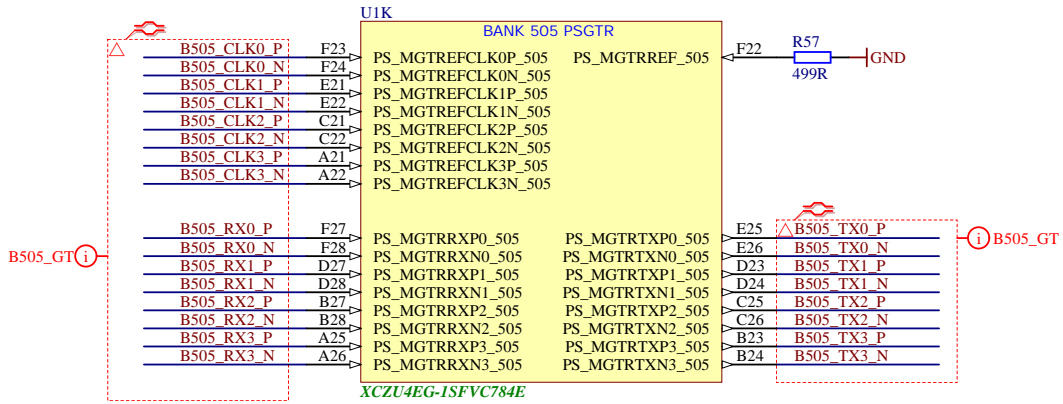
4




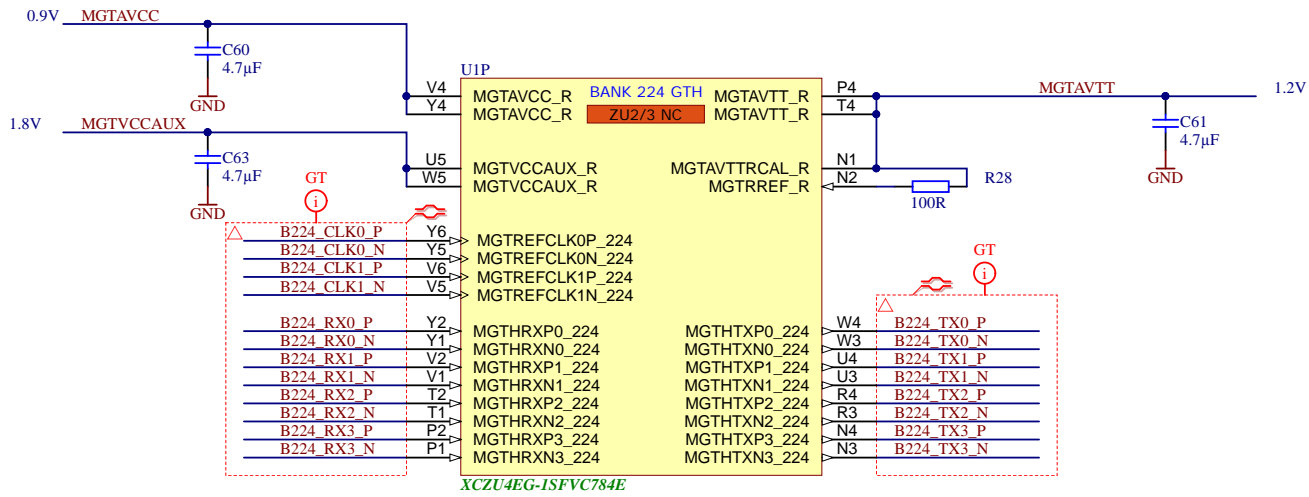
| | | |
|---------|---------------------------|---------------------------------------|
| | Title: TE0803 - MIO Banks | |
| | A4 | Number: TE0803 04EG-1EB |
| | Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT |
| | Filename: B_MIO.SchDoc | Page 11 of 26 |
| Rev. 02 | | |



| | | | |
|--|-------------------------|---------------------------------------|--------------|
| | Title: TE0803 - PS_DDR | | |
| | A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| | Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page12 of 26 |
| | Filename: PS_DDR.SchDoc | | |



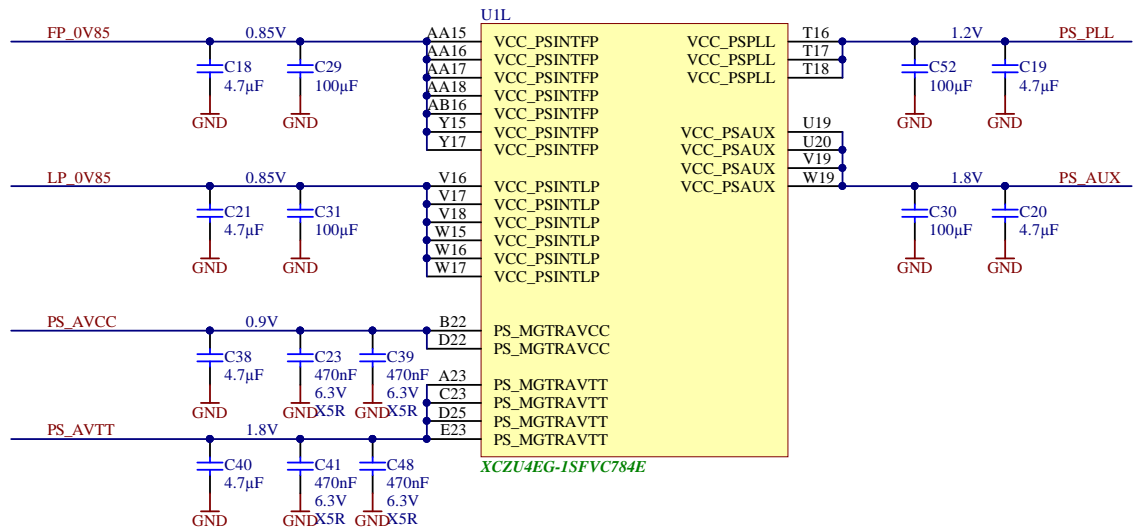
| | | | |
|---|--|---------------------------------------|----------------------------|
|  | | Title: TE0803 - PS_GT | |
| | | A4 | Number: TE0803 04EG-1EB |
| Date: 2018-05-21 | | Copyright: Trenz Electronic GmbH / TT | |
| Filename: B_PS_GT.SchDoc | | Page13 of 26 | |



XZU4EG-1SFVC784E



| | | |
|-------------------------|---------------------------------------|---------------|
| Title: TE0803 - B224GTH | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page 14 of 26 |
| Filename: B_GT.SchDoc | | |



| | | |
|------------------------------|---------------------------------------|--------------|
| Title: TE0803 - ZU_PS_POWER | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page15 of 26 |
| Filename: ZU_PS_POWER.SchDoc | | |

1

2

3

4

A

A

B

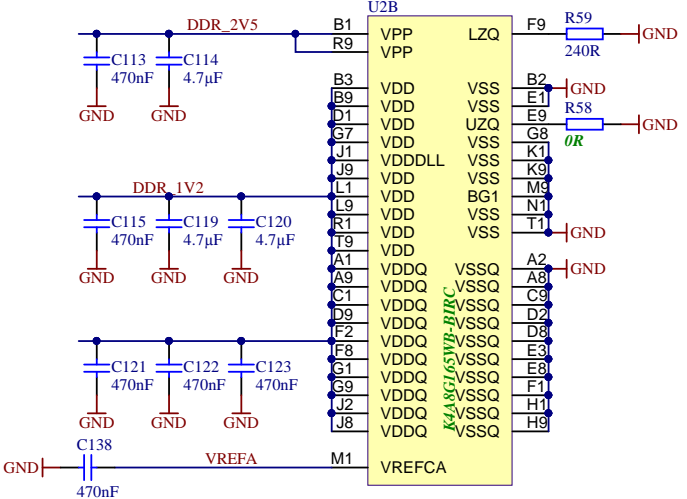
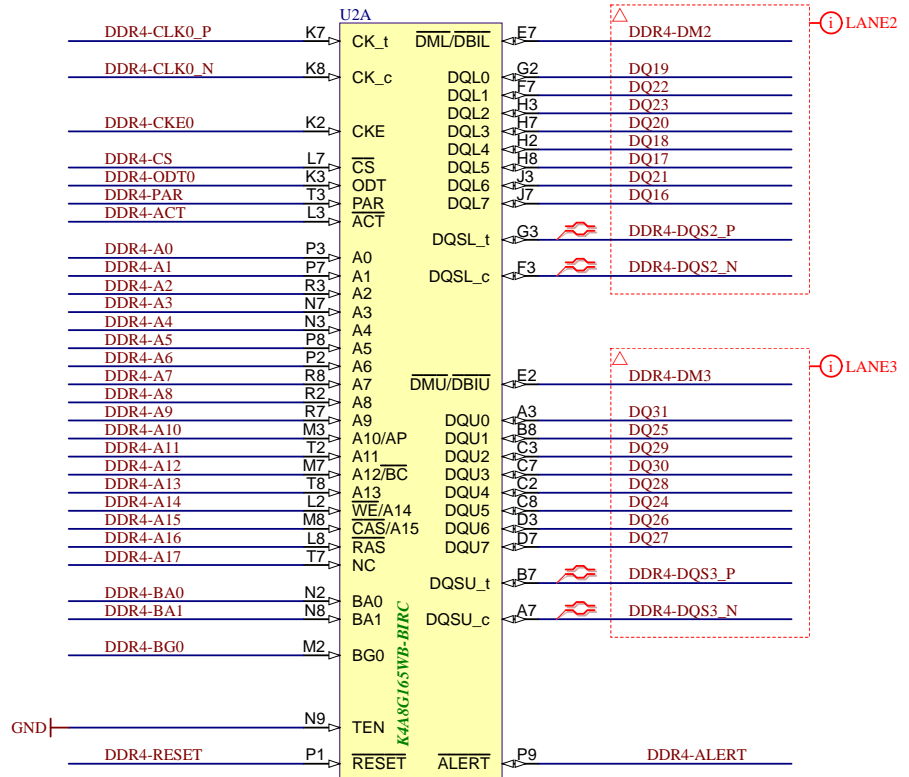
B

C

C

D

D



| | | |
|----------------------------|---------------------------------------|---------------|
| Title: TE0803 - DDR4_1_RAM | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page 17 of 26 |
| Filename: DDR4-RAM.SchDoc | | |

1

2

3

4

1

2

3

4

A

A

B

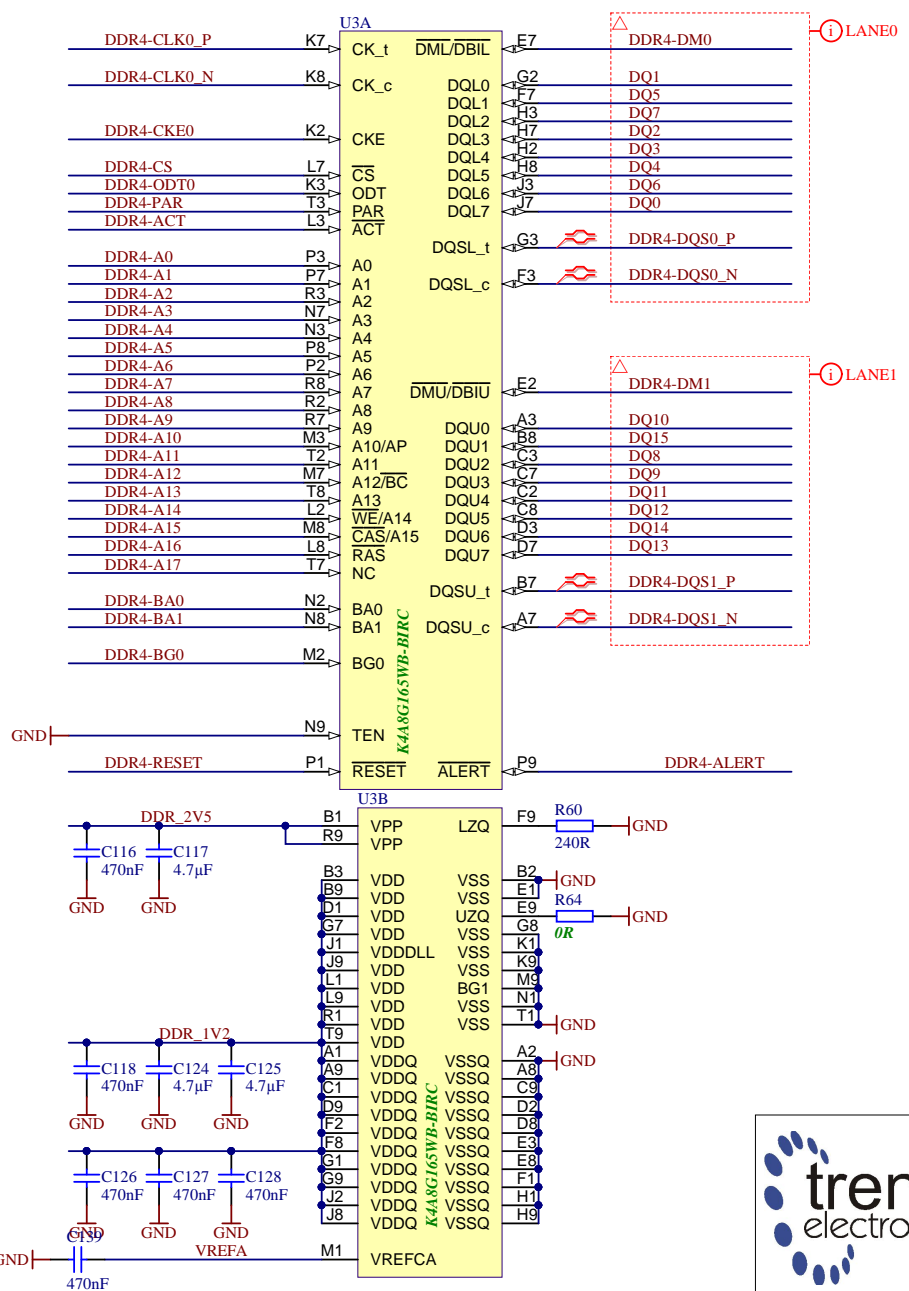
B

C

C

D

D



| | | |
|-----------------------------|---------------------------------------|--------------|
| Title: TE0803 - DDR4_2_RAM | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page18 of 26 |
| Filename: DDR4-RAM_2.SchDoc | | |

1

2

3

4

1

2

3

4

A

A

B

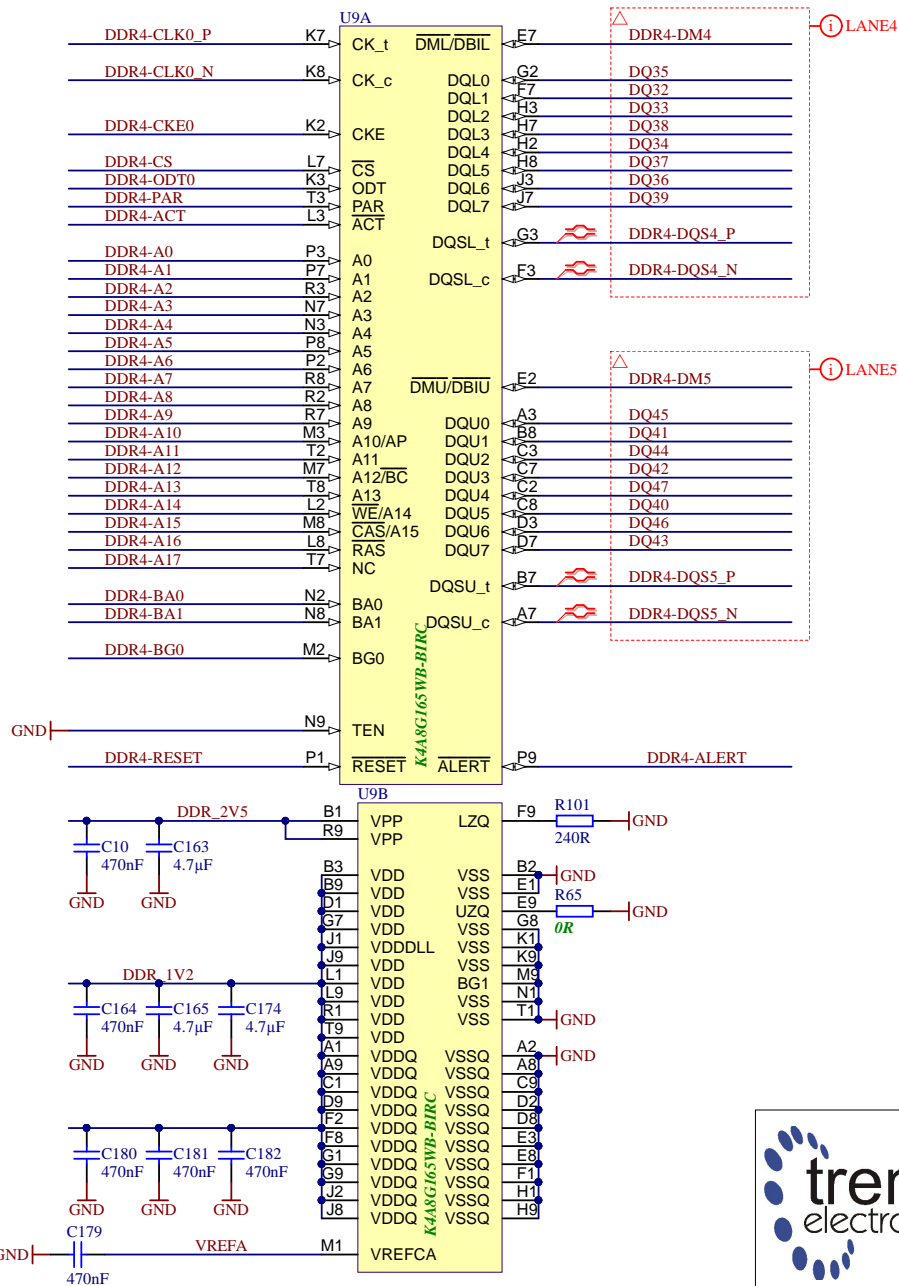

B

C

C

D

D

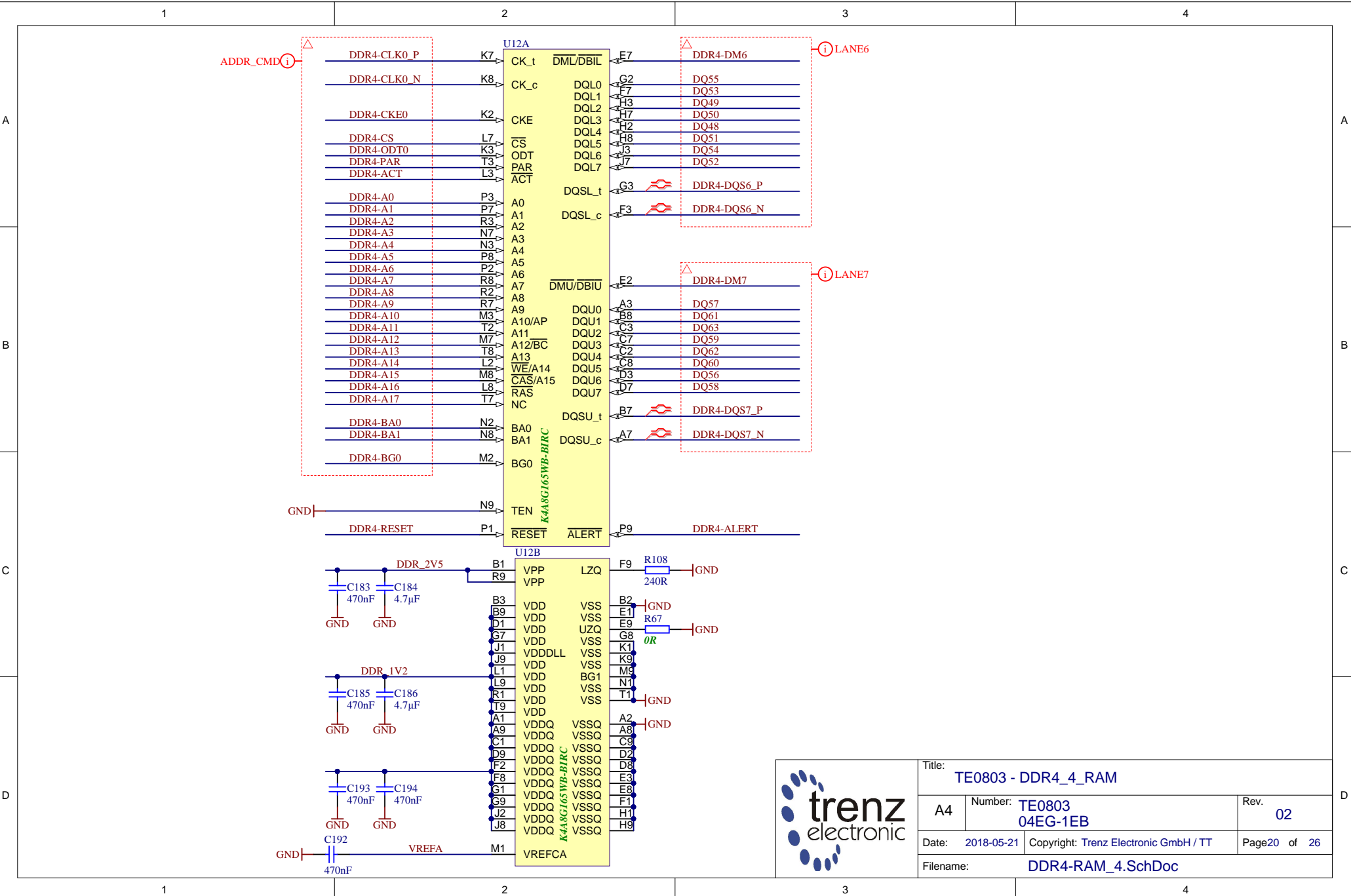
| | | |
|-----------------------------|---------------------------------------|---------------|
| Title: TE0803 - DDR4_3_RAM | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page 19 of 26 |
| Filename: DDR4-RAM_3.SchDoc | | |

1

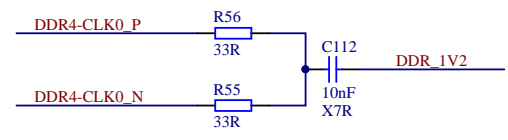
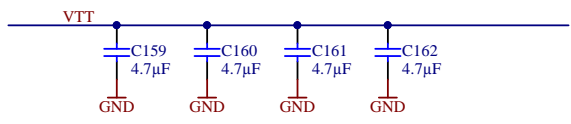
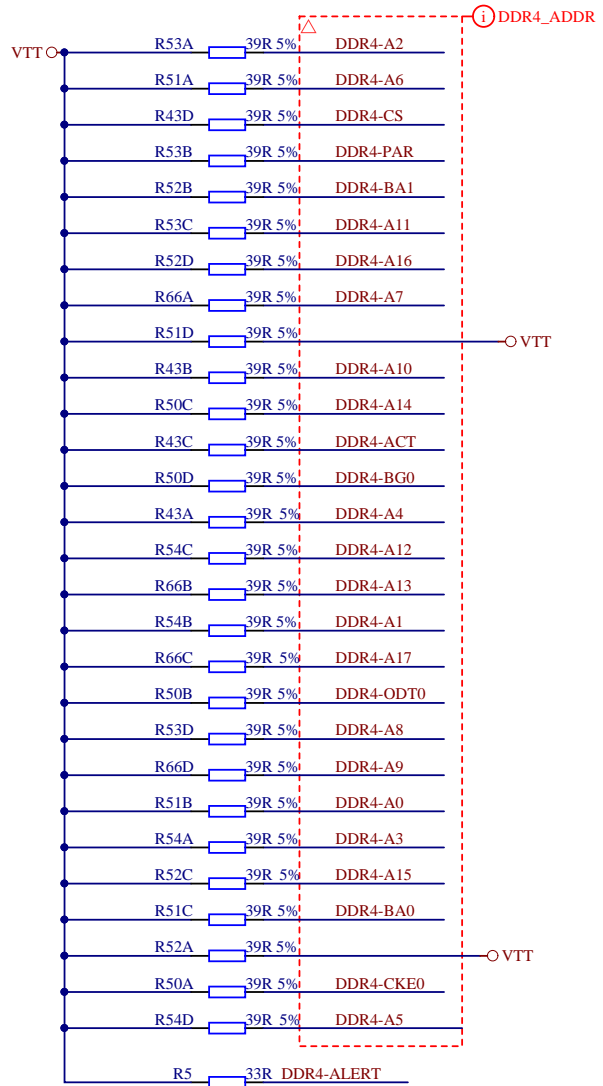
2

3

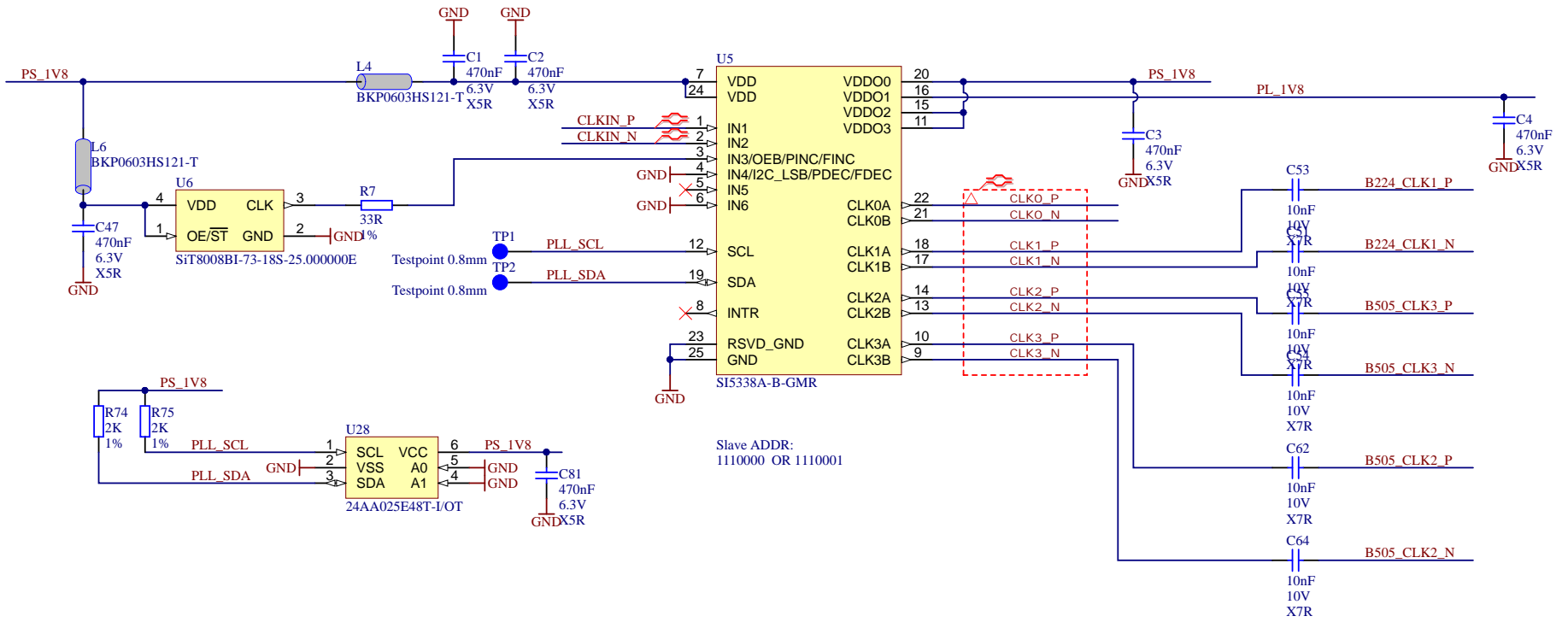
4



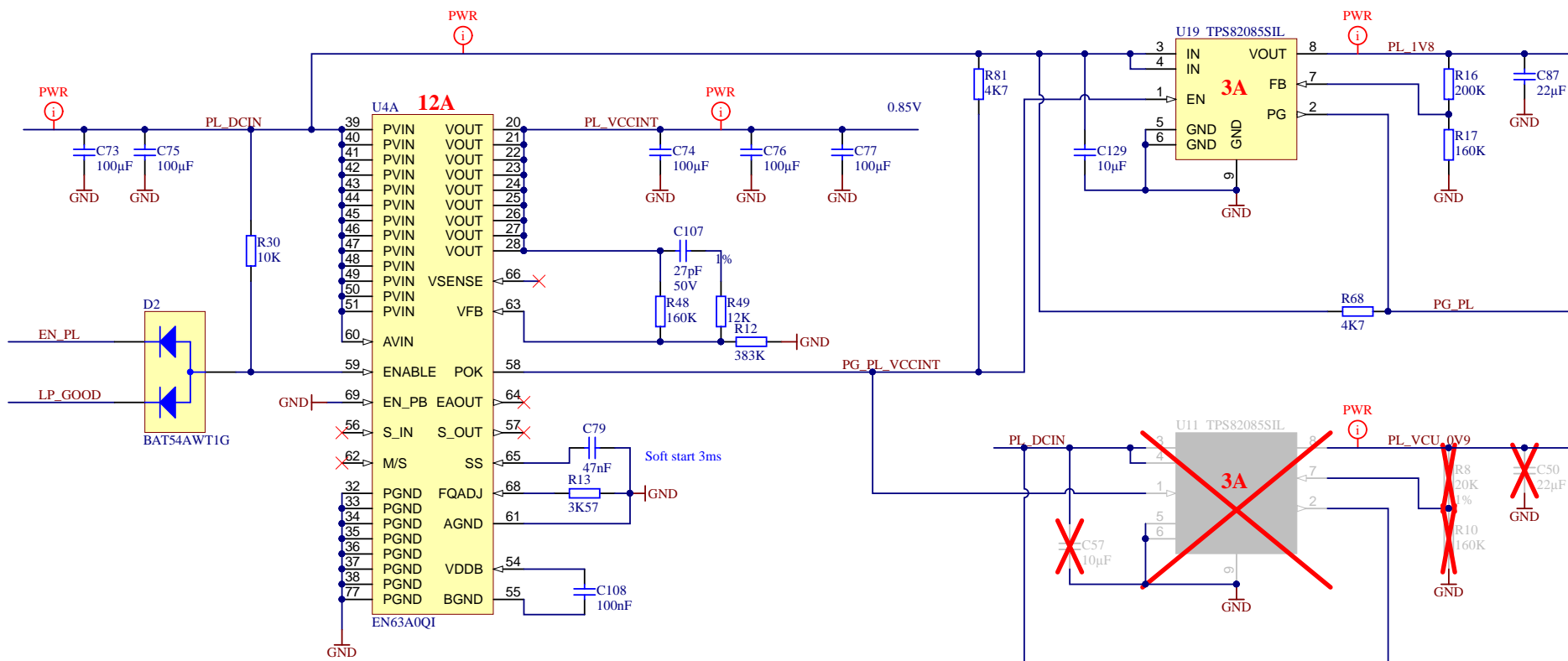
| | | |
|-----------------------------|---------------------------------------|--------------|
| Title: TE0803 - DDR4_4_RAM | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page20 of 26 |
| Filename: DDR4-RAM_4.SchDoc | | |



| | | |
|----------------------------|---------------------------------------|--------------|
| Title: TE0803 - DDR4_TERM | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page21 of 26 |
| Filename: DDR4-TERM.SchDoc | | |




| | | |
|------------------------|---------------------------------------|--------------|
| Title: TE0803 - CLOCK | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page22 of 26 |
| Filename: Clock.SchDoc | | |

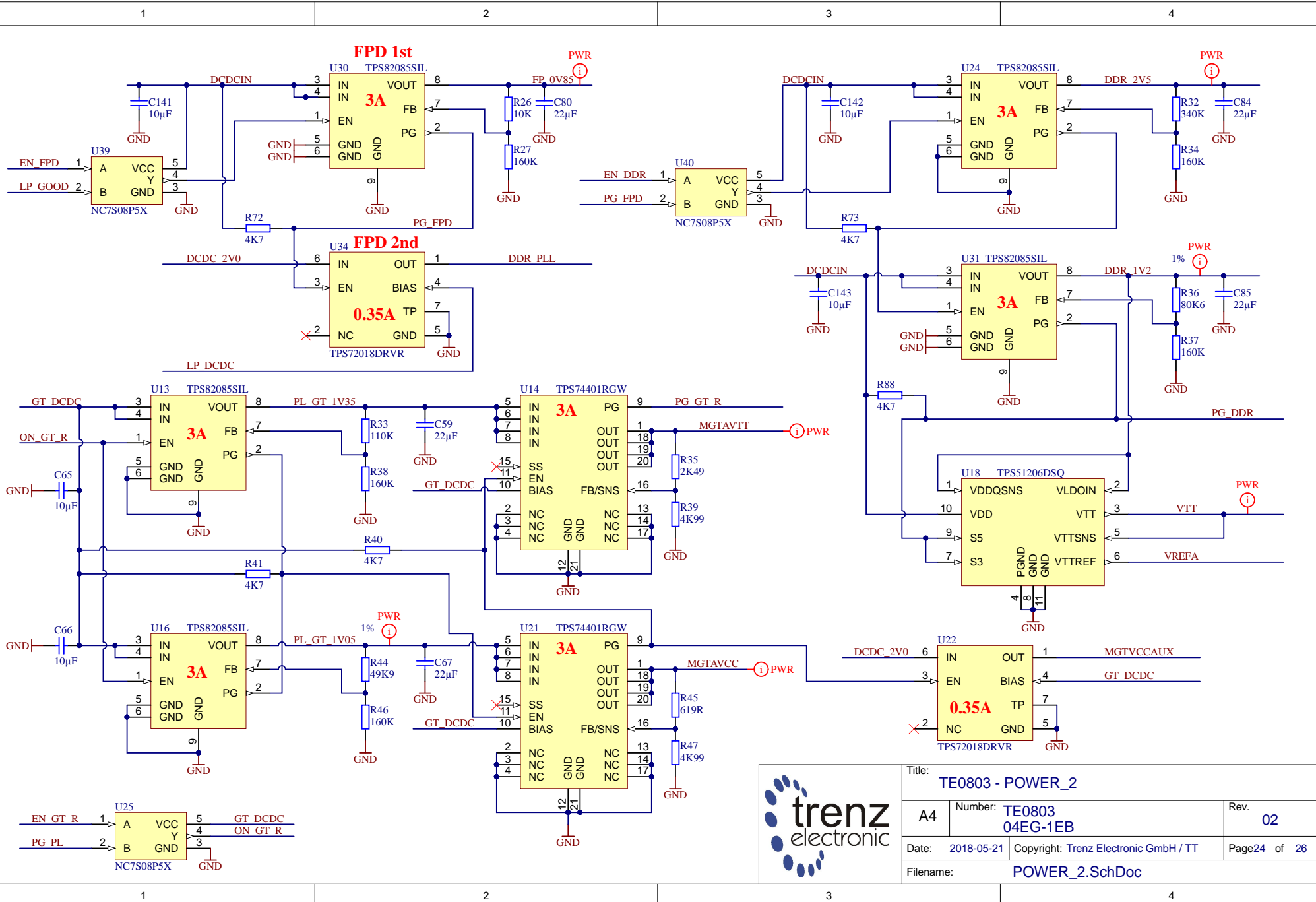


U4B
EN63A0QI

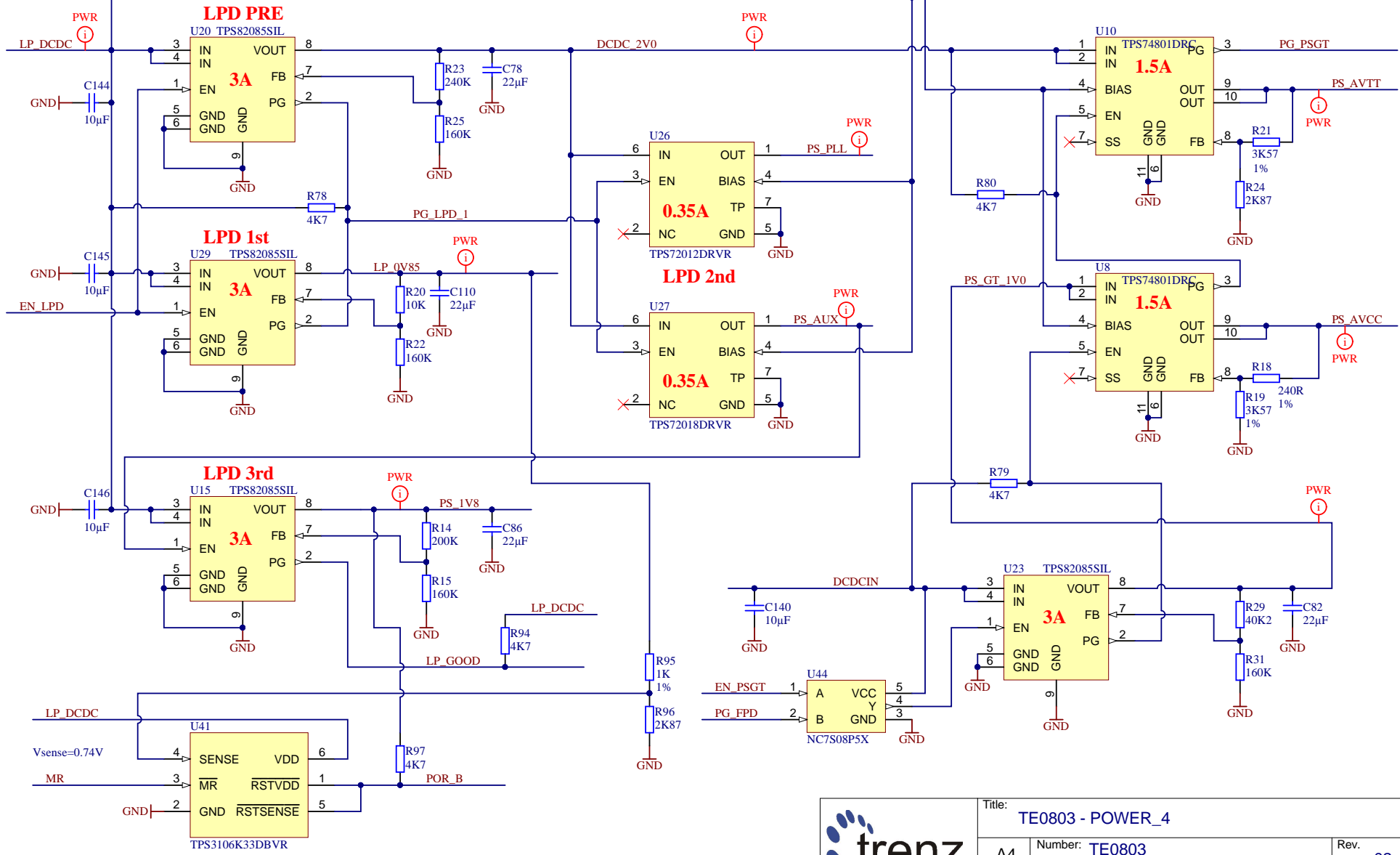
| | | | |
|----|----|--------|----|
| 1 | NC | NC | 17 |
| 2 | NC | NC | 18 |
| 3 | NC | NC | 19 |
| 4 | NC | NC | 29 |
| 5 | NC | NC | 30 |
| 6 | NC | NC(SW) | 31 |
| 7 | NC | NC(SW) | 52 |
| 8 | NC | NC | 53 |
| 9 | NC | NC | 67 |
| 10 | NC | NC(SW) | 70 |
| 11 | NC | NC(SW) | 71 |
| 12 | NC | NC(SW) | 72 |
| 13 | NC | NC | 73 |
| 14 | NC | NC | 74 |
| 15 | NC | NC | 75 |
| 16 | NC | NC | 76 |




| | | |
|------------------------|---------------------------------------|--------------|
| Title: TE0803 - POWER | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page23 of 26 |
| Filename: POWER.SchDoc | | |



| | | |
|--------------------------|---------------------------------------|--------------|
| Title: TE0803 - POWER_2 | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH / TT | Page24 of 26 |
| Filename: POWER_2.SchDoc | | |



| | | | | |
|---|--|---------------------------------------|-------------------------|----------------------------|
|  | | | Title: TE0803 - POWER_4 | |
| | | | A4 | Number: TE0803 04EG-1EB |
| Date: 2018-05-21 | | Copyright: Trenz Electronic GmbH / TT | | Page25 of 26 |
| Filename: POWER_4.SchDoc | | | | |

1

2

3

4

CHANGES REV01a (20.11.2017):

1) VCU voltage set to 0.9V, R20 changed to 40K , PL_VCU_1V0 renamed to PL_VCU_0V9.

CHANGES REV02 (20.06.2018):

- 1) Added LDO to DDR_PLL
- 2) All differential pairs wath length matched with tollerance 0.1mm (excluding package delays)
- 3) Added MAC EEPROM U28
- 4) VPS_MGTRAVCC set to 0.85V
- 5) Added pull-up resistors R68,R69

A

A

B

B

C

C

D

D



| | | |
|-----------------------------------|----------------------------------|--------------|
| Title: TE0803 - Changes list | | |
| A4 | Number: TE0803 04EG-1EB | Rev. 02 |
| Date: 2018-05-21 | Copyright: Trenz Electronic GmbH | Page26 of 26 |
| Filename: Revision_Changes.SchDoc | | |

1

2

3

4