
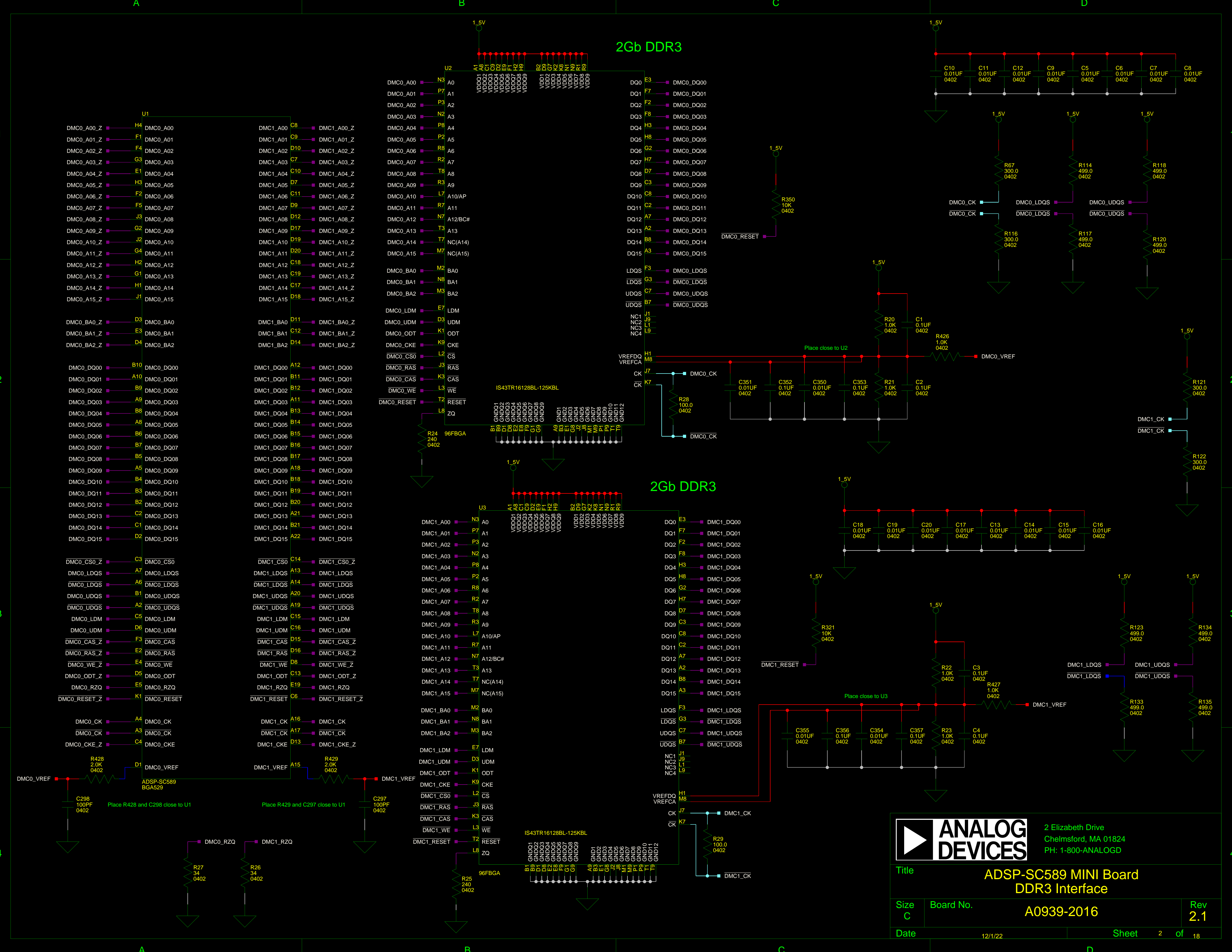

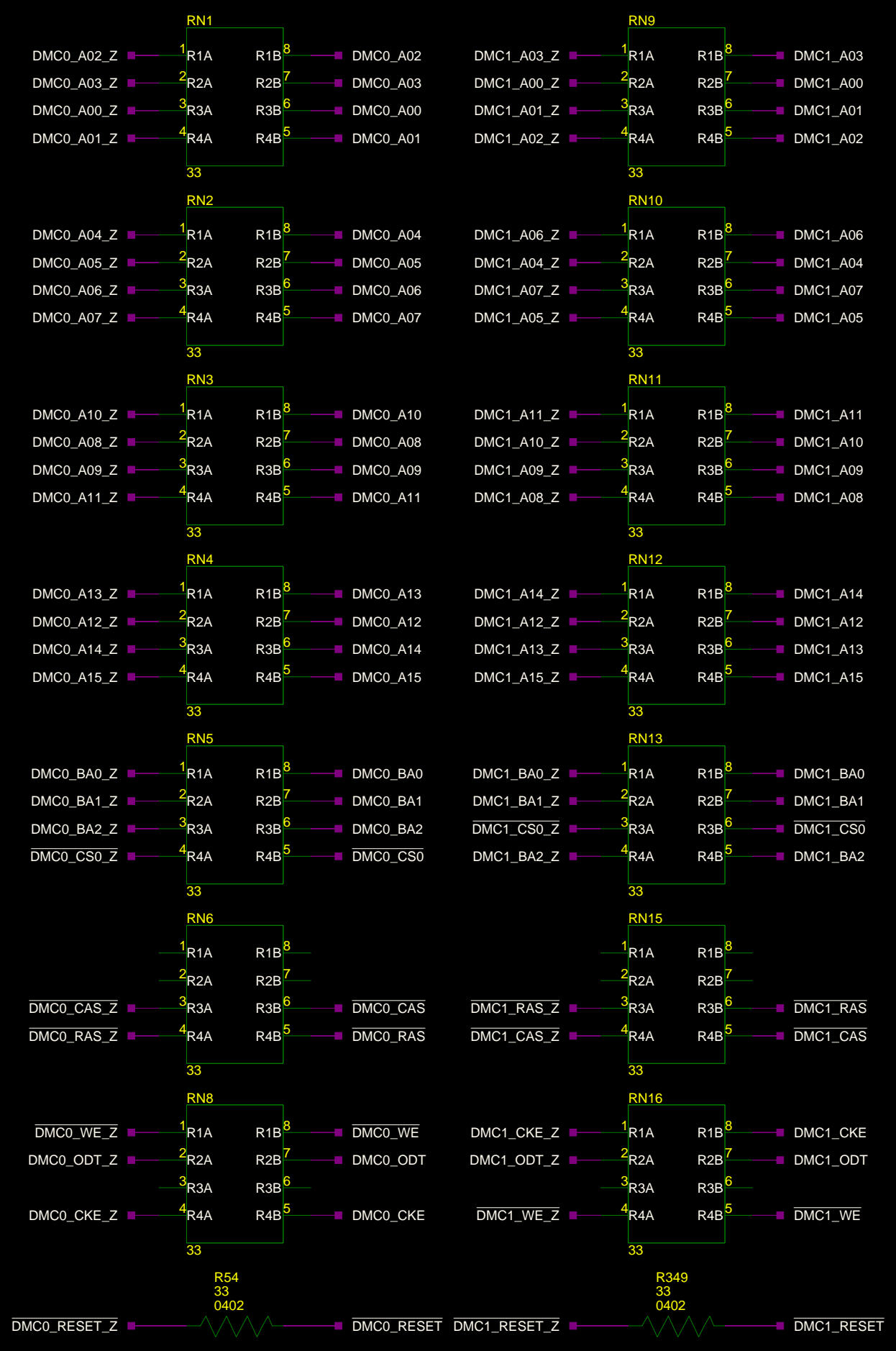



ADSP-SC589 MINI Board Schematic

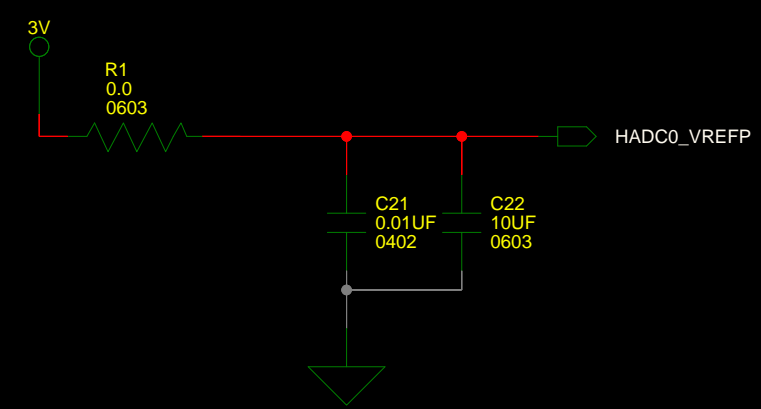
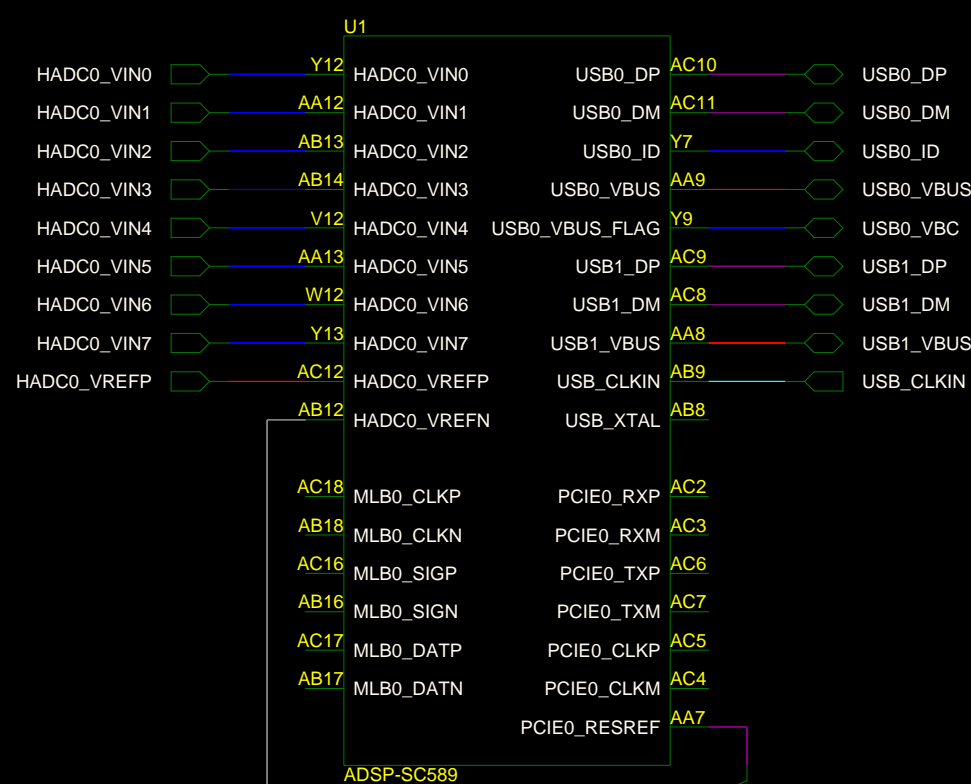
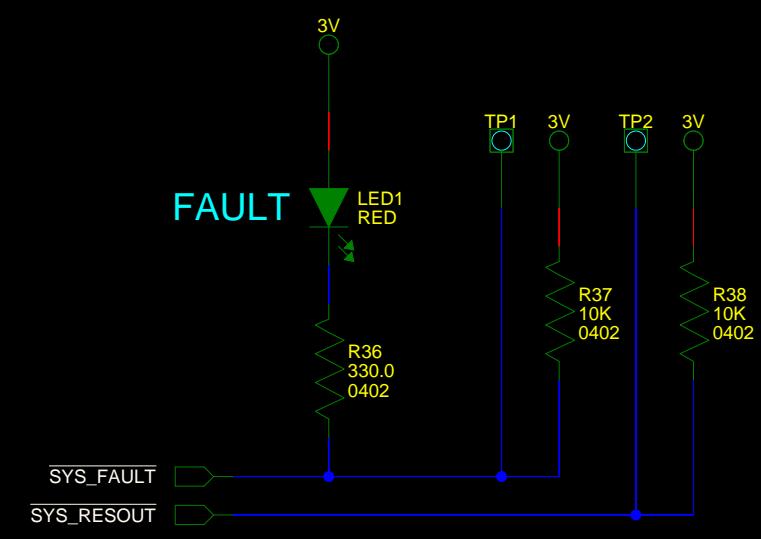
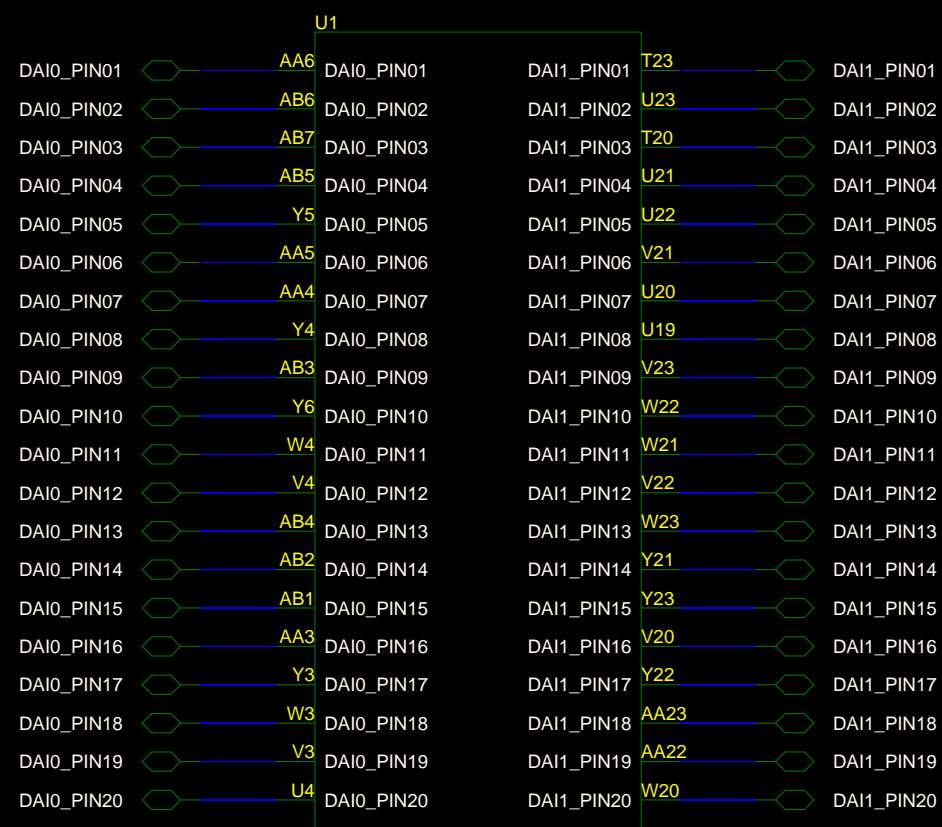
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|---|-----------|--|------------|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title | | ADSP-SC589 MINI Board Title Block | |
| Size C | Board No. | A0939-2016 | Rev 2.1 |
| Date | 12/1/22 | Sheet | 1 of 18 |



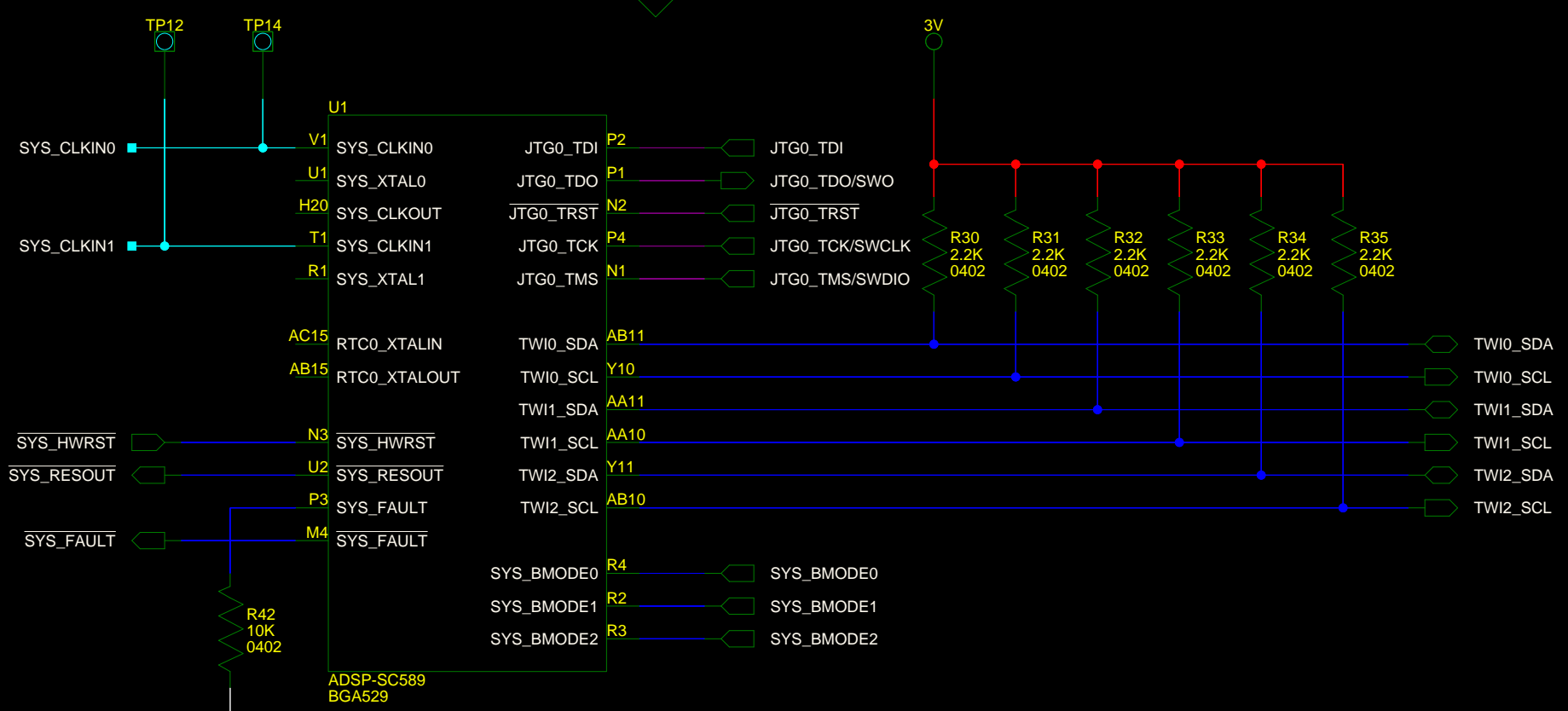
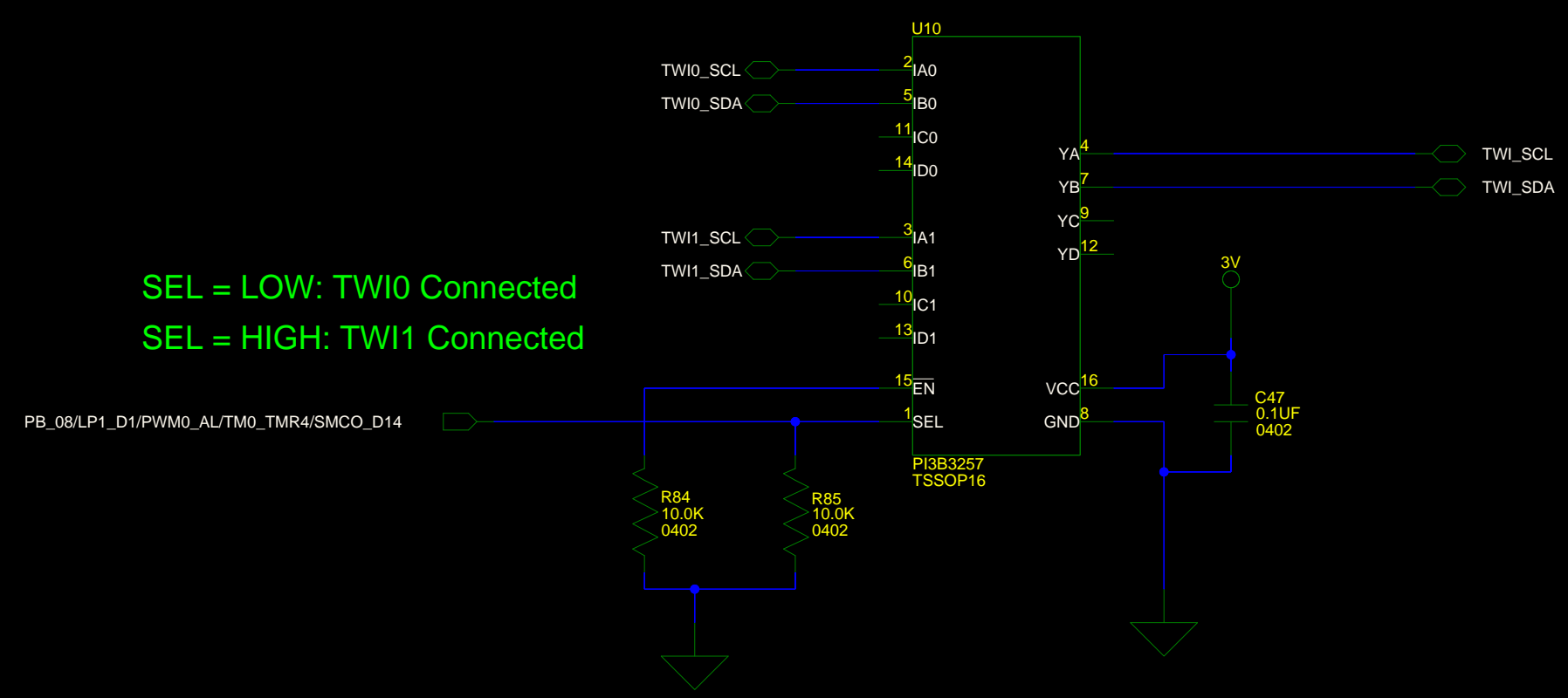
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|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| | | ADSP-SC589 MINI Board DDR3 Interface | |
| Title | Board No. | | Rev |
| C | A0939-2016 | | 2.1 |
| Date | 12/1/22 | Sheet | 2 of 18 |



| | | | |
|---|--------------------------------|--|--|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board DDR3 Terminators | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 3 of 18 | | |

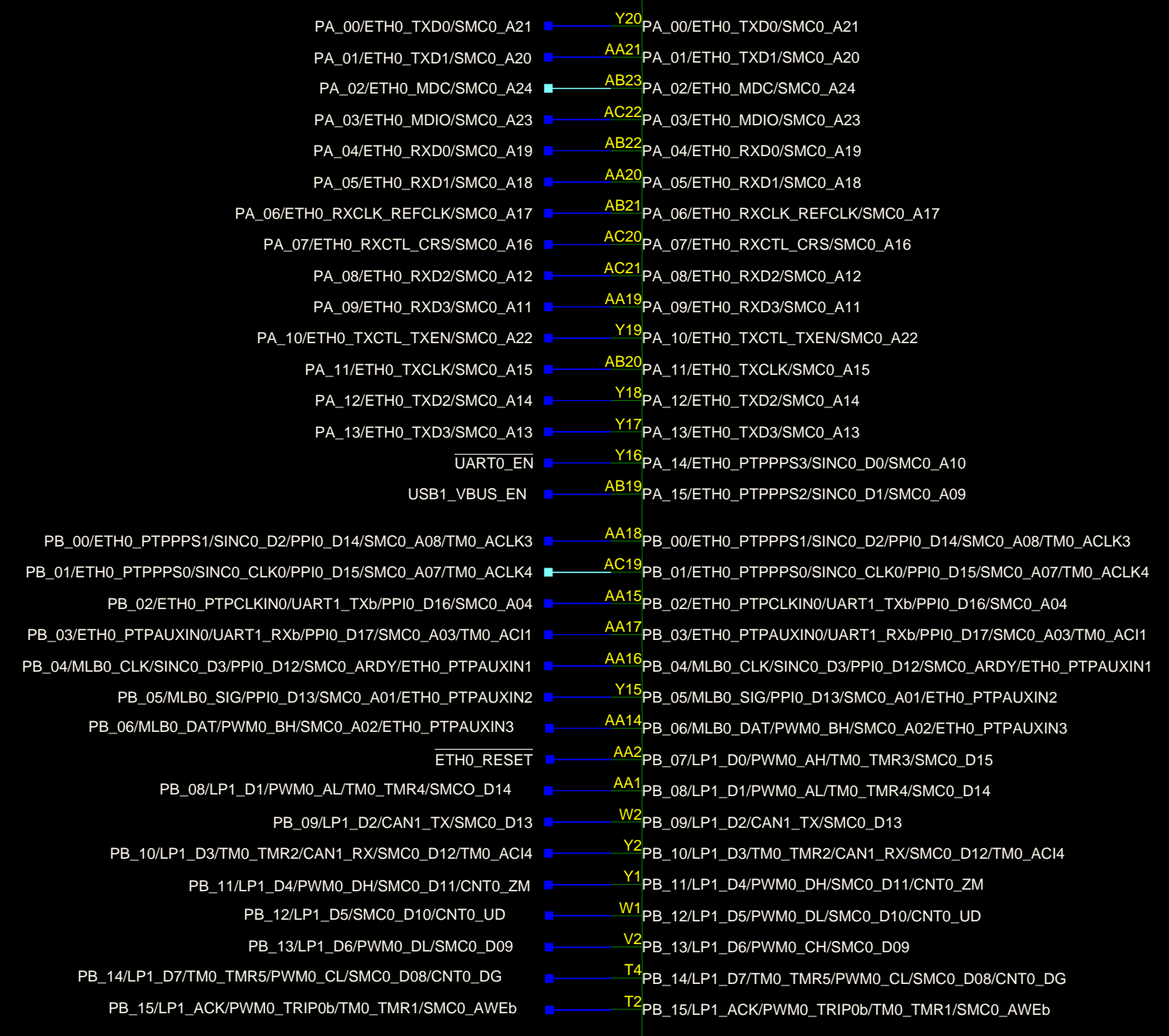


TWI Switch for A2B and ADAU1761



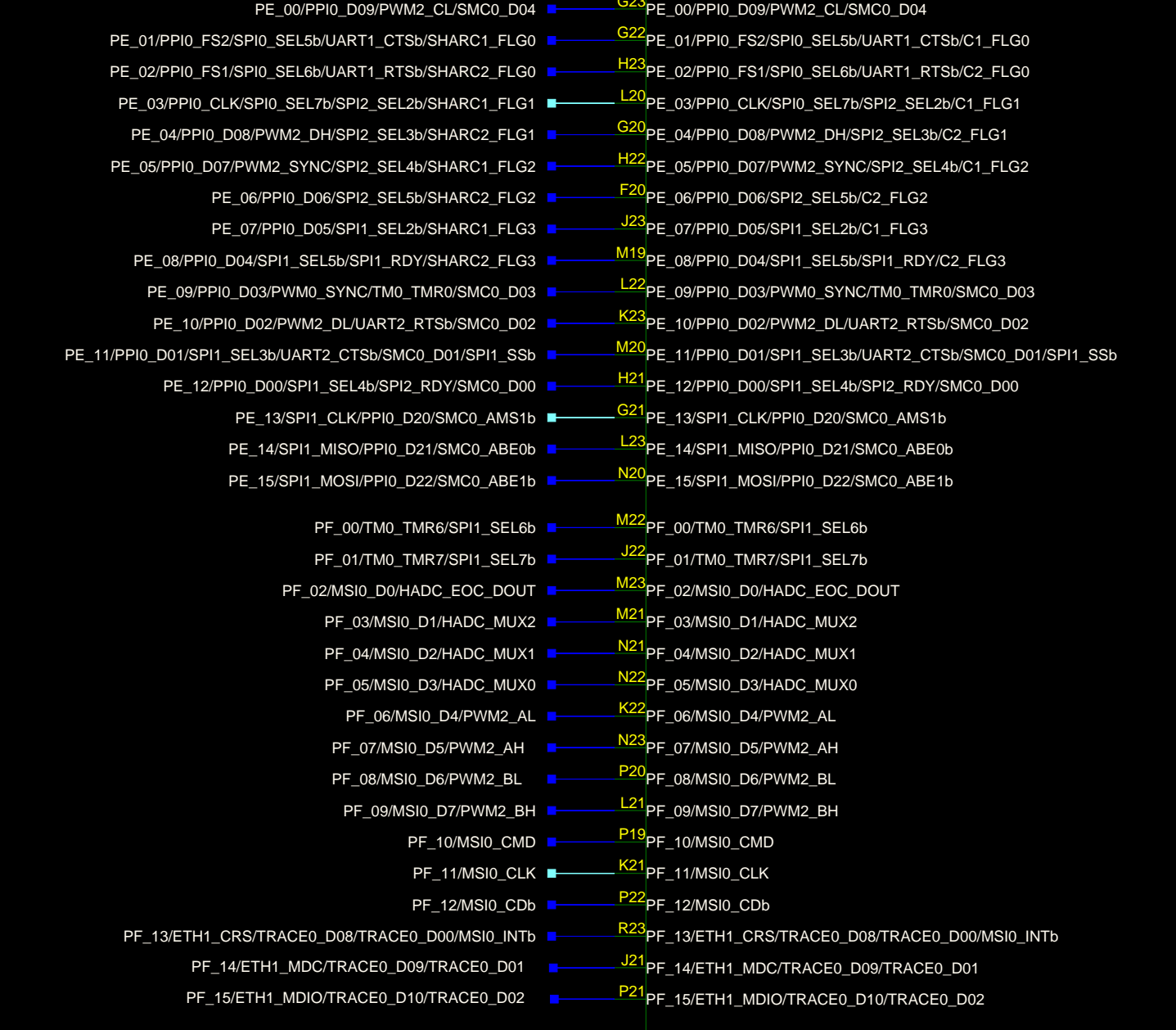
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| | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board Non-Mux Ports | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 4 of 18 | | |

U1

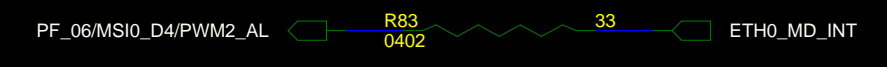
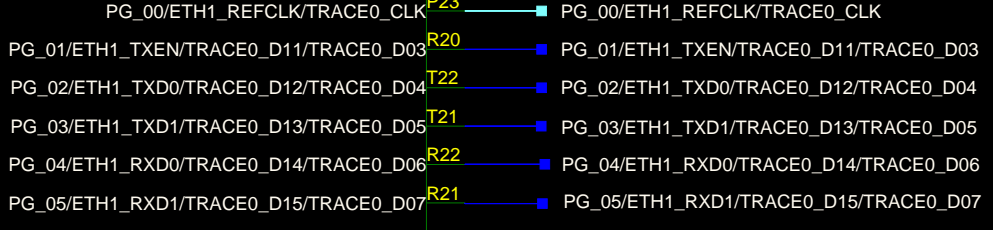
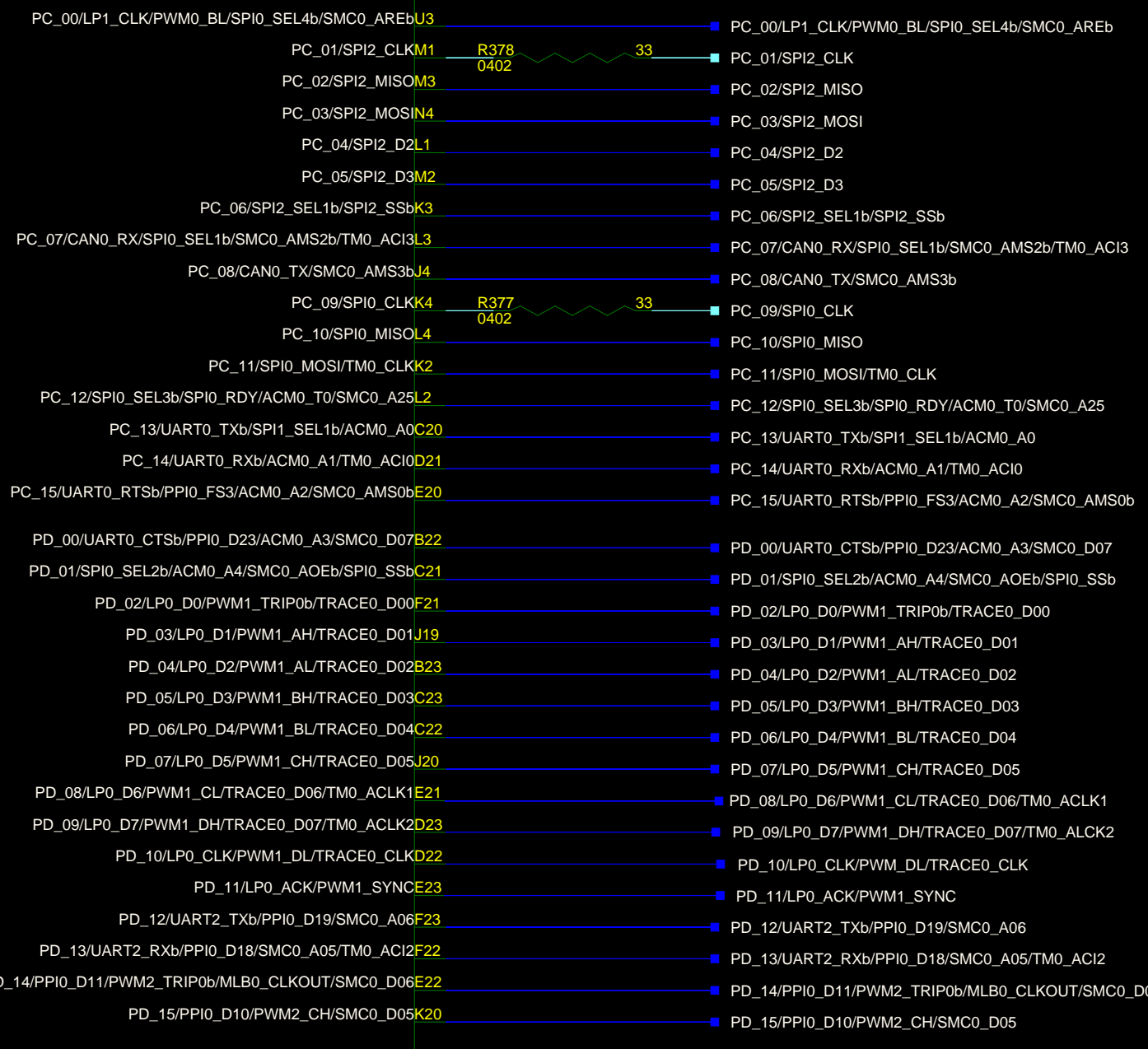


ADSP-SC589
BGA529

U1



ADSP-SC589
BGA529



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 Chelmsford, MA 01824
 PH: 1-800-ANALOGD

| | | | |
|-------|------------|---------------------------------|---------|
| Title | | ADSP-SC589 MINI Board Mux Ports | |
| Size | Board No. | Rev | |
| C | A0939-2016 | 2.1 | |
| Date | 12/1/22 | Sheet | 5 of 18 |


A

B

C

D



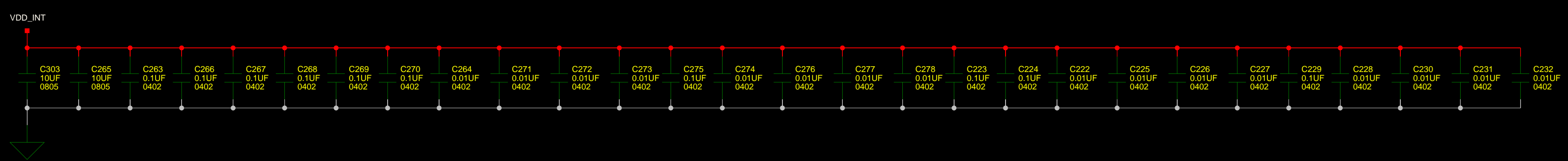
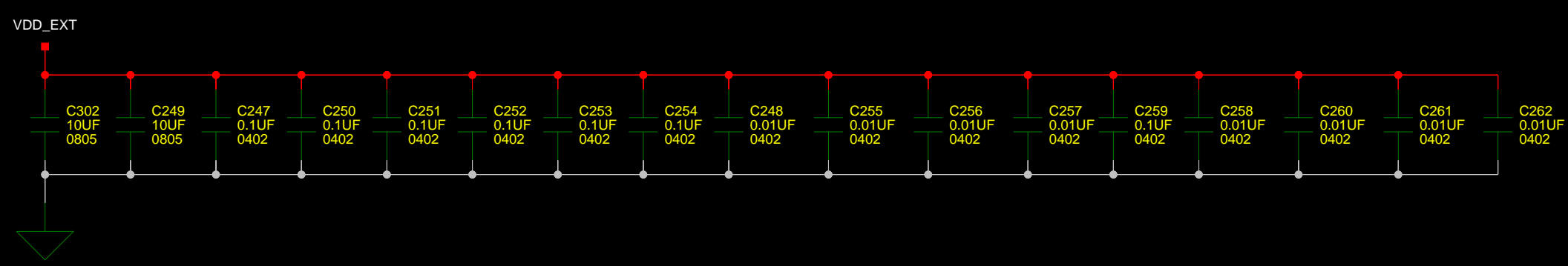
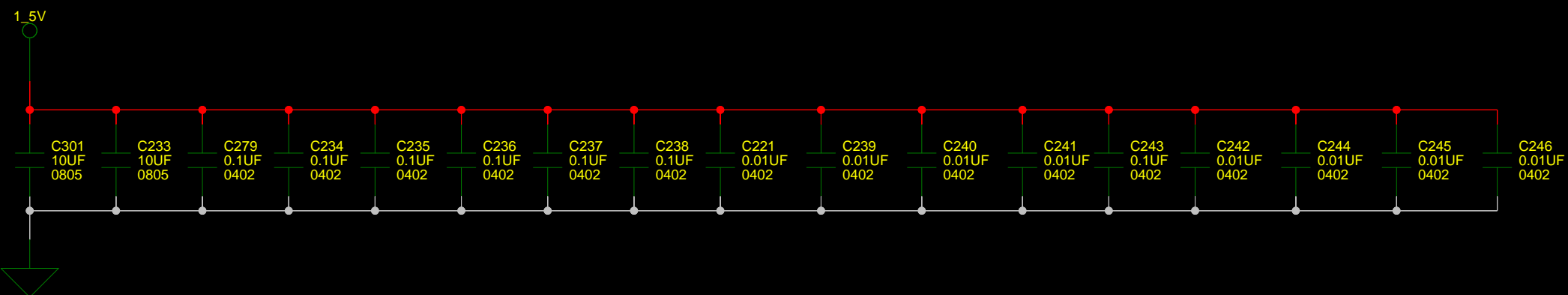
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|---|--------------------------------|--|-----------|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| | | Title ADSP-SC589 MINI Board Processor Power/Ground | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 6 | of 18 | 18 |


A

B

C

D



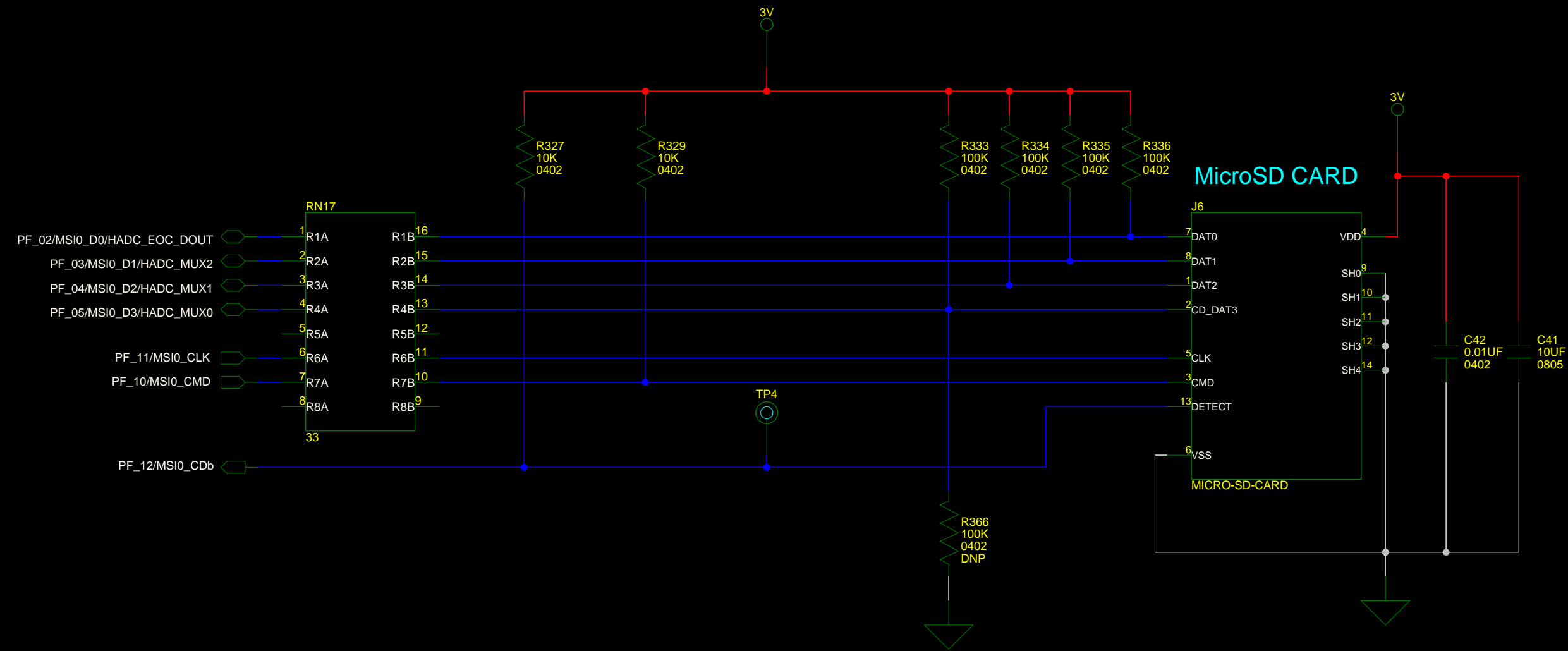
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|---|-----------------------------|--|-------------------|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board Proc Bypass Caps | | | |
| Size C | Board No. A0939-2016 | | Rev 2.1 |
| Date | 12/1/22 | Sheet 7 | of 18 |

A

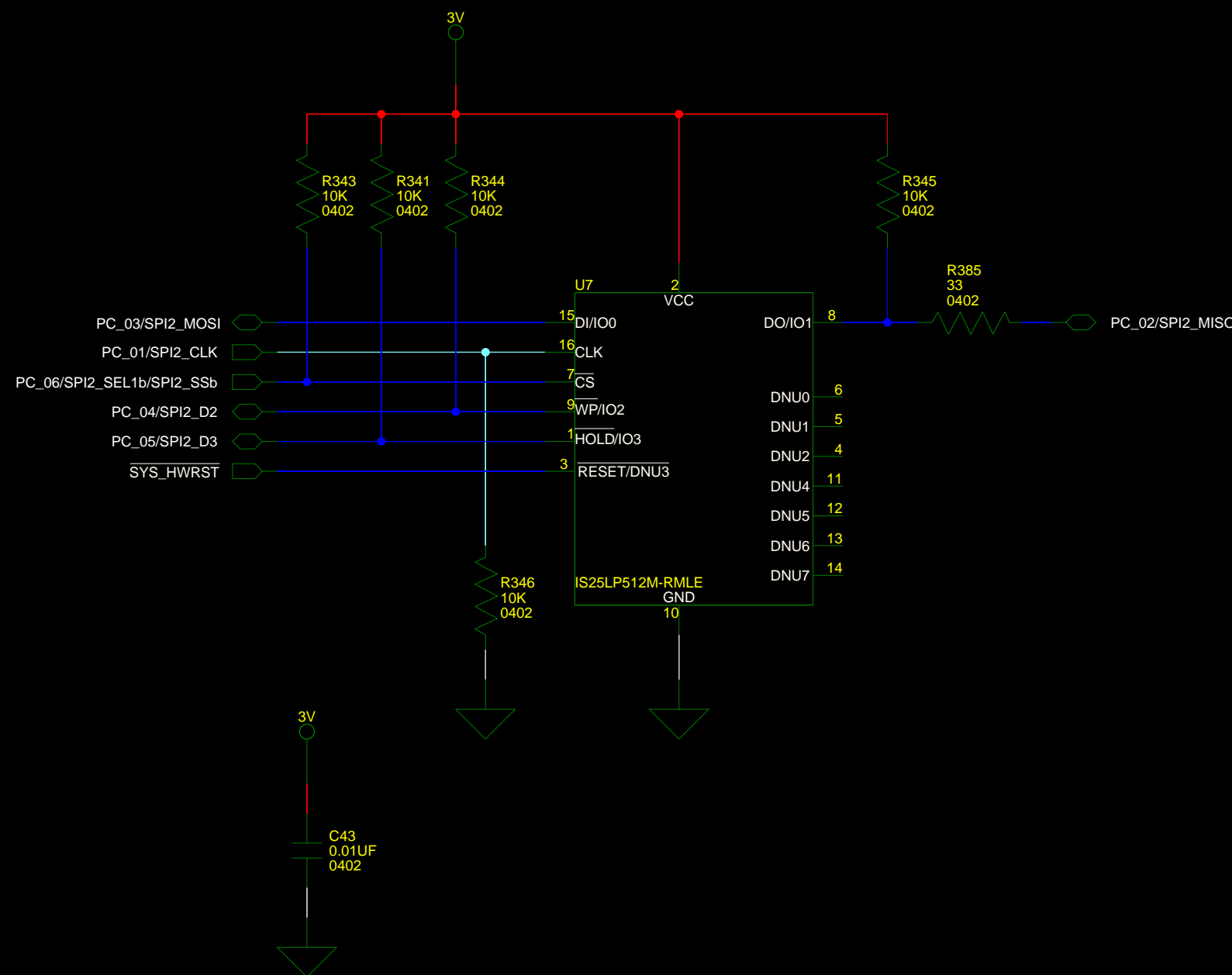
B


C

D



512Mb QUAD SPI FLASH



| | | | |
|---|--------------------------------|--|--|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board SPI Flash/SD | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 8 of 18 | | |

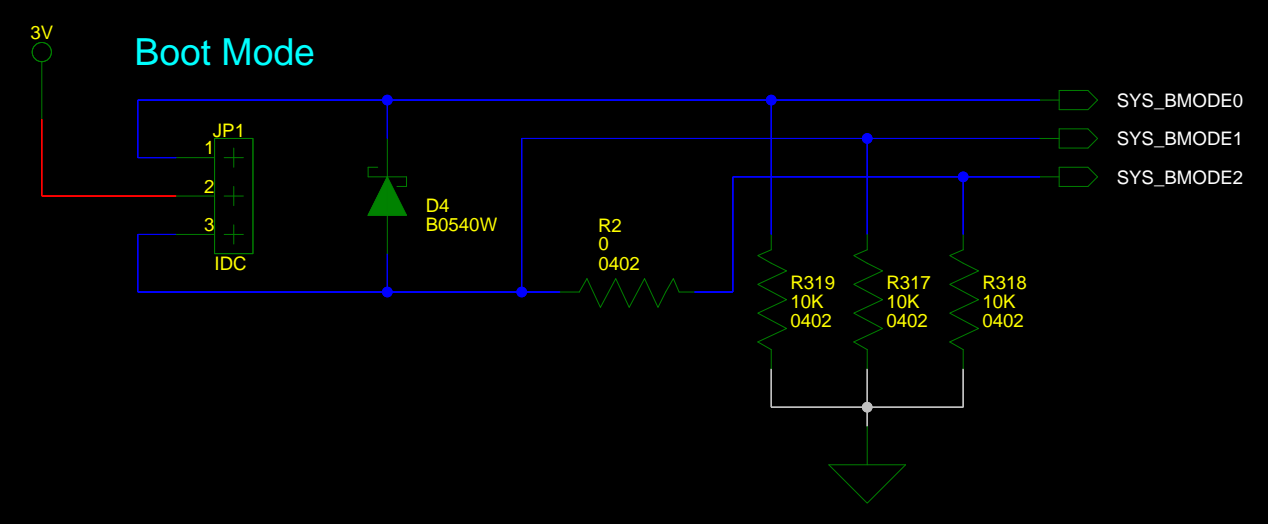
A

B

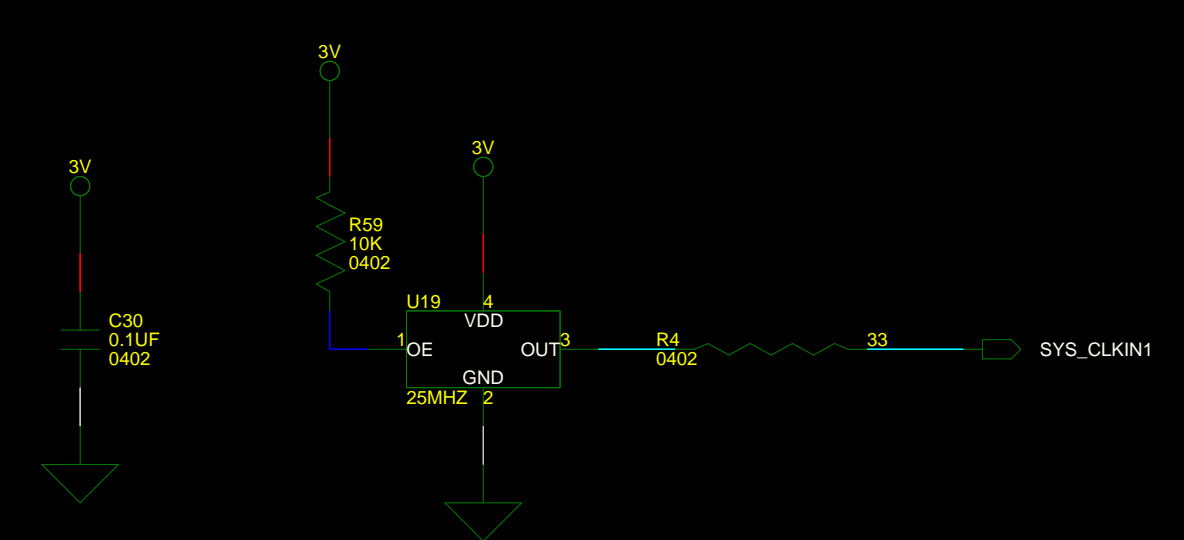
C

D

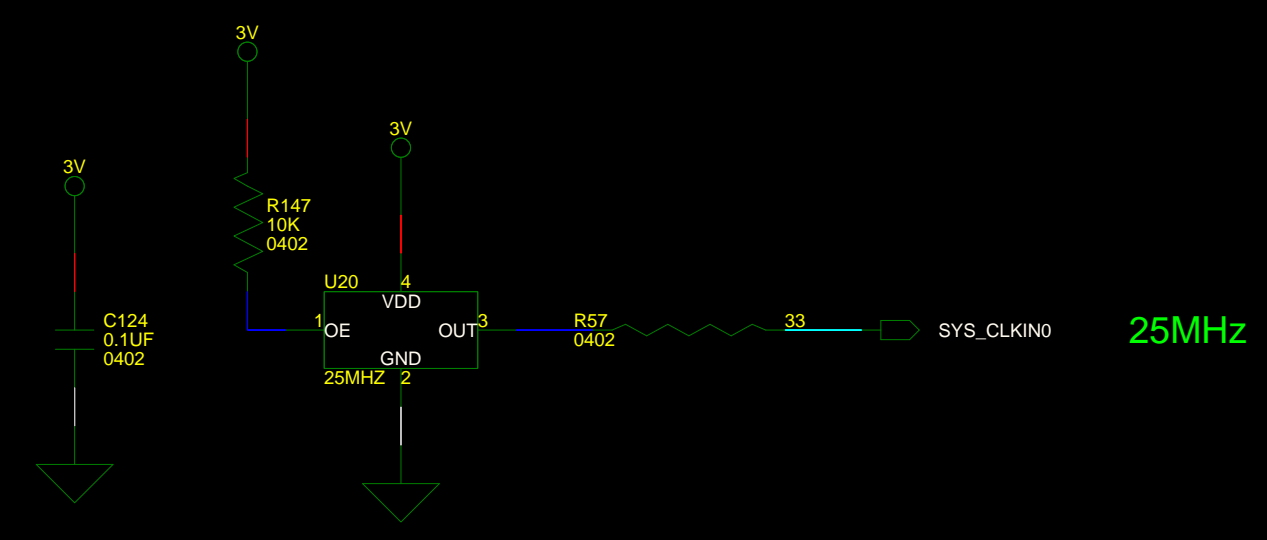
SJ9
DEFAULT=INSTALLED 1-2



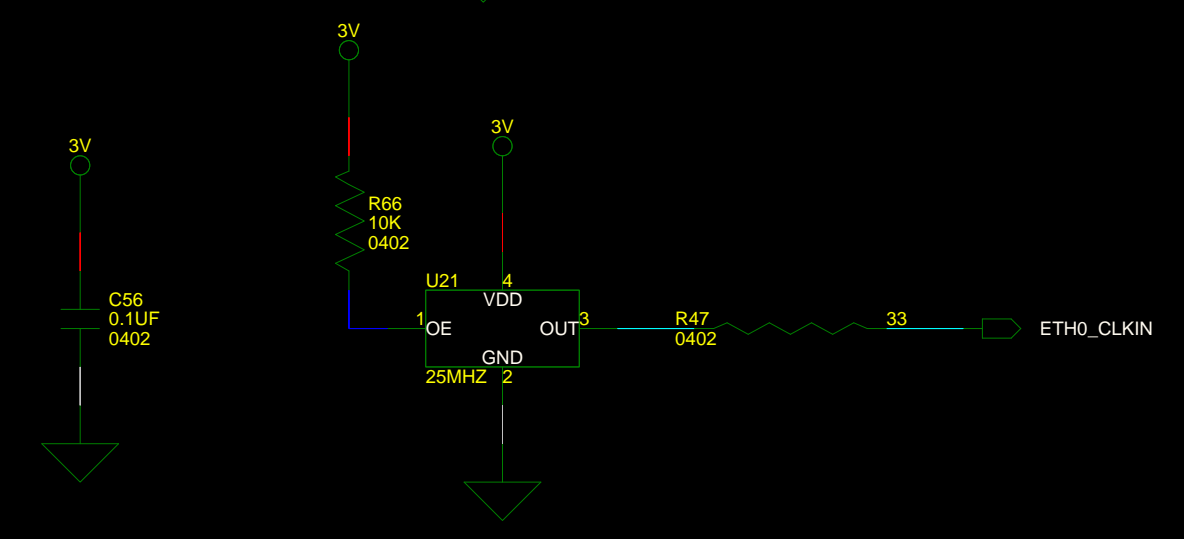
Jumper 1-2: SPI Boot
 Jumper 2-3: UART Boot
 Jumper Removed: No Boot



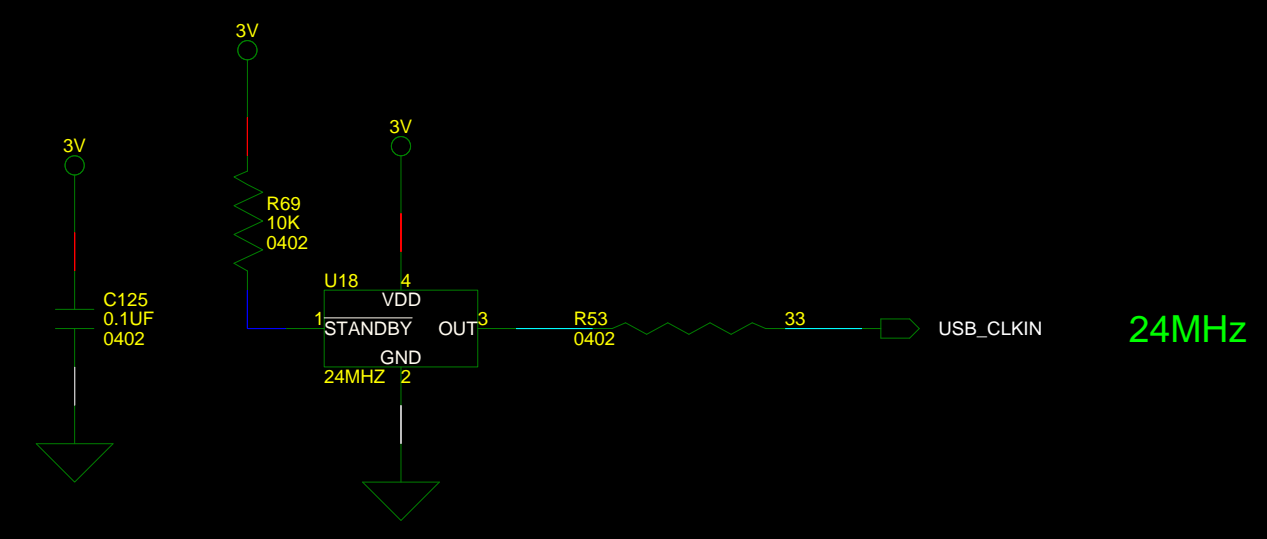
25MHz



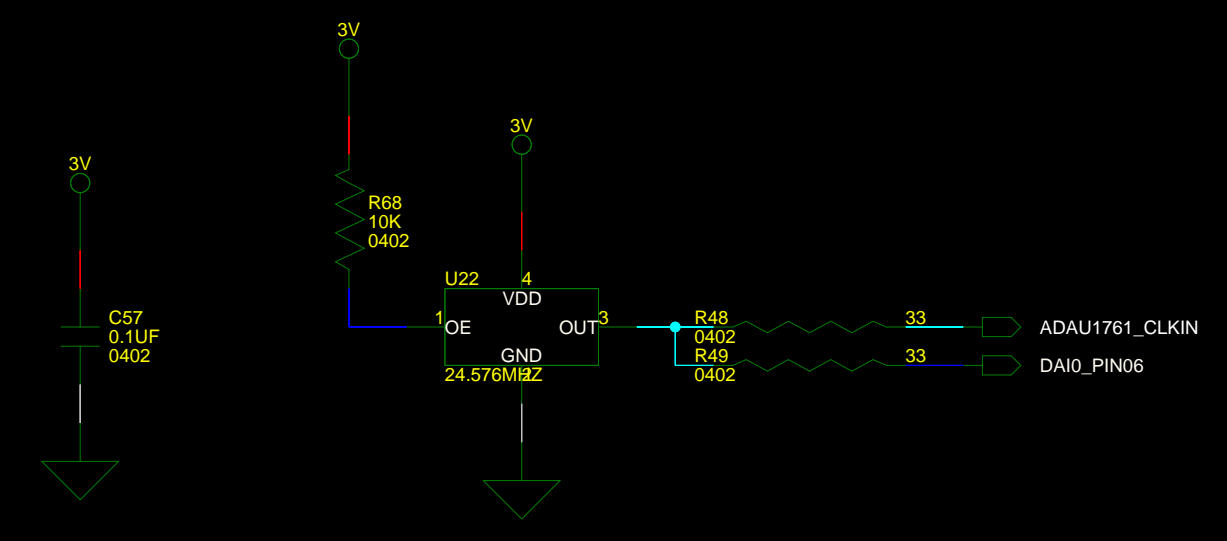
25MHz



25MHz



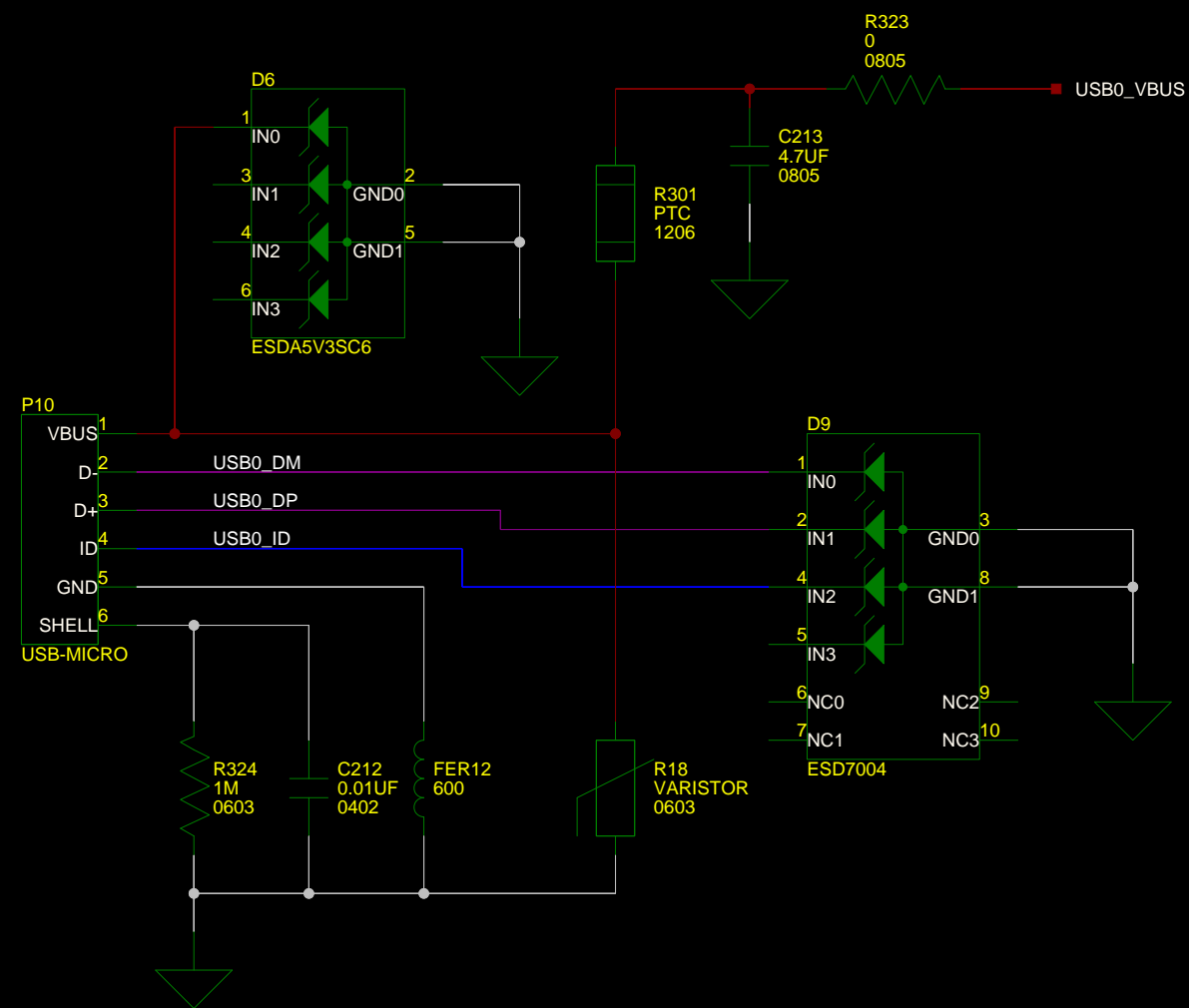
24MHz



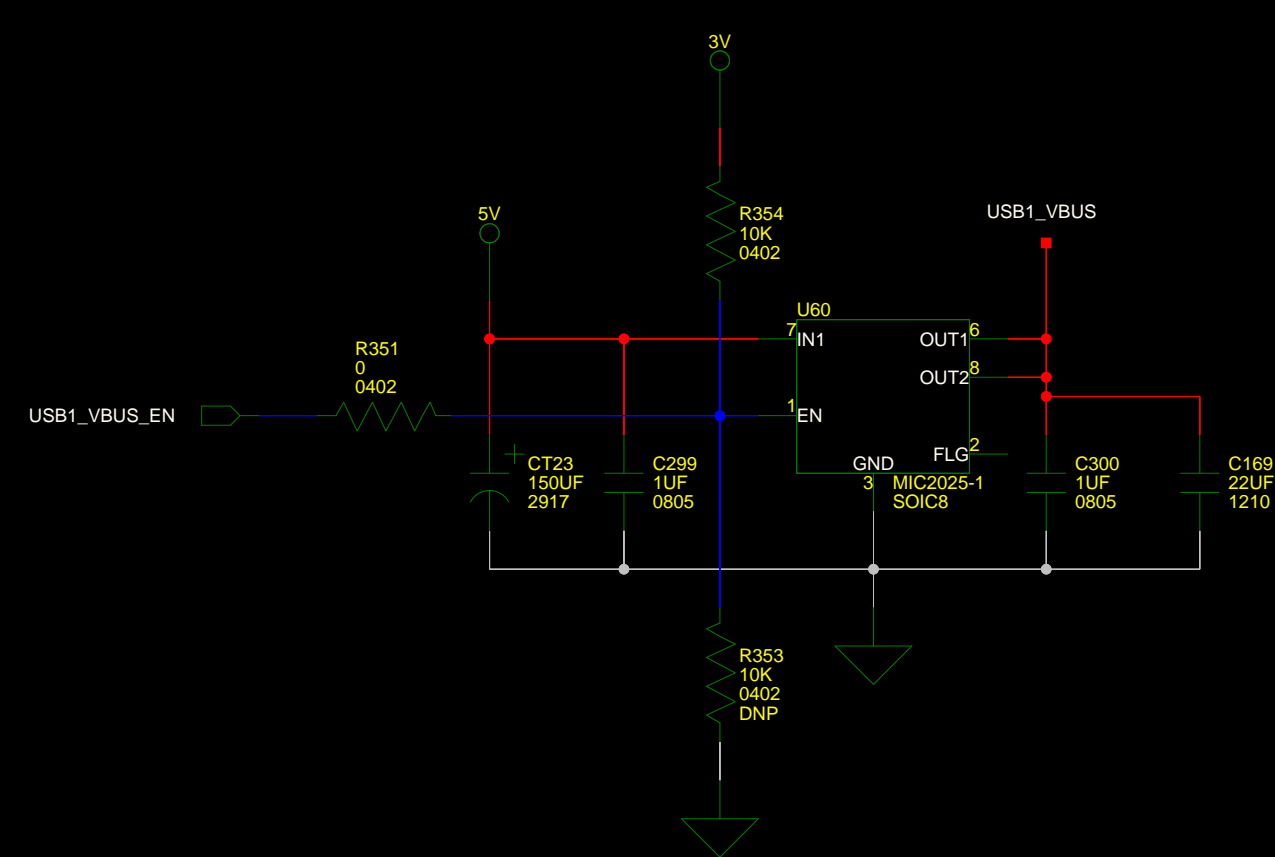
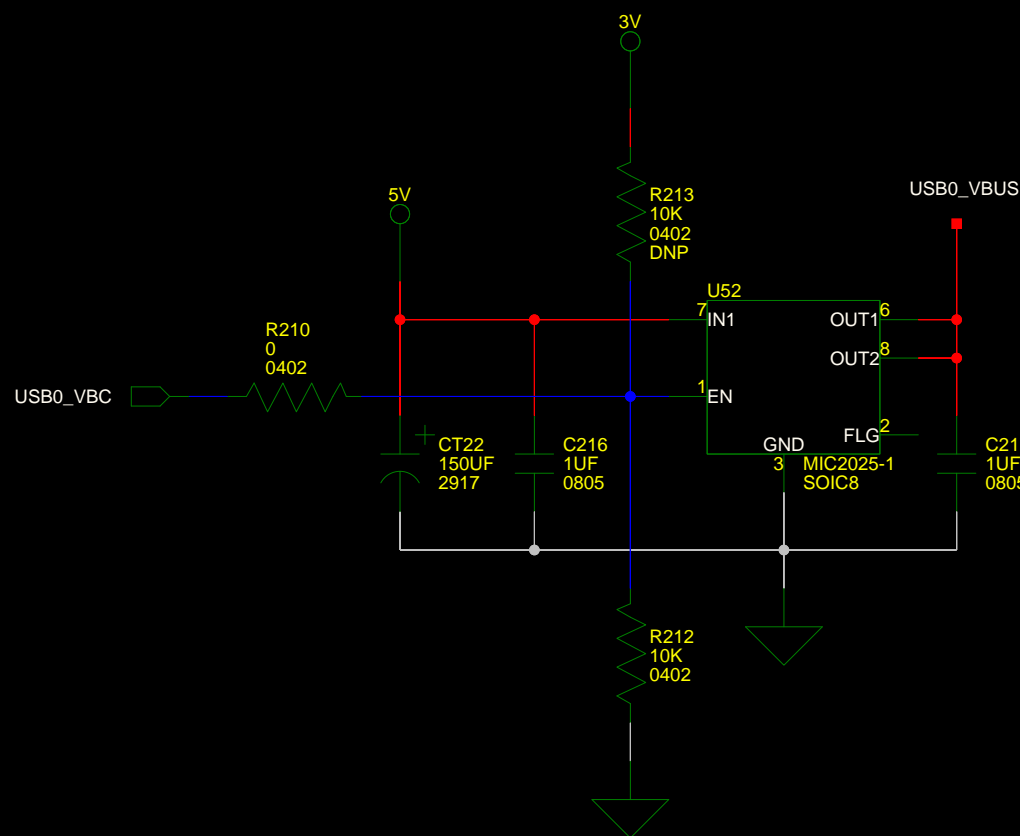
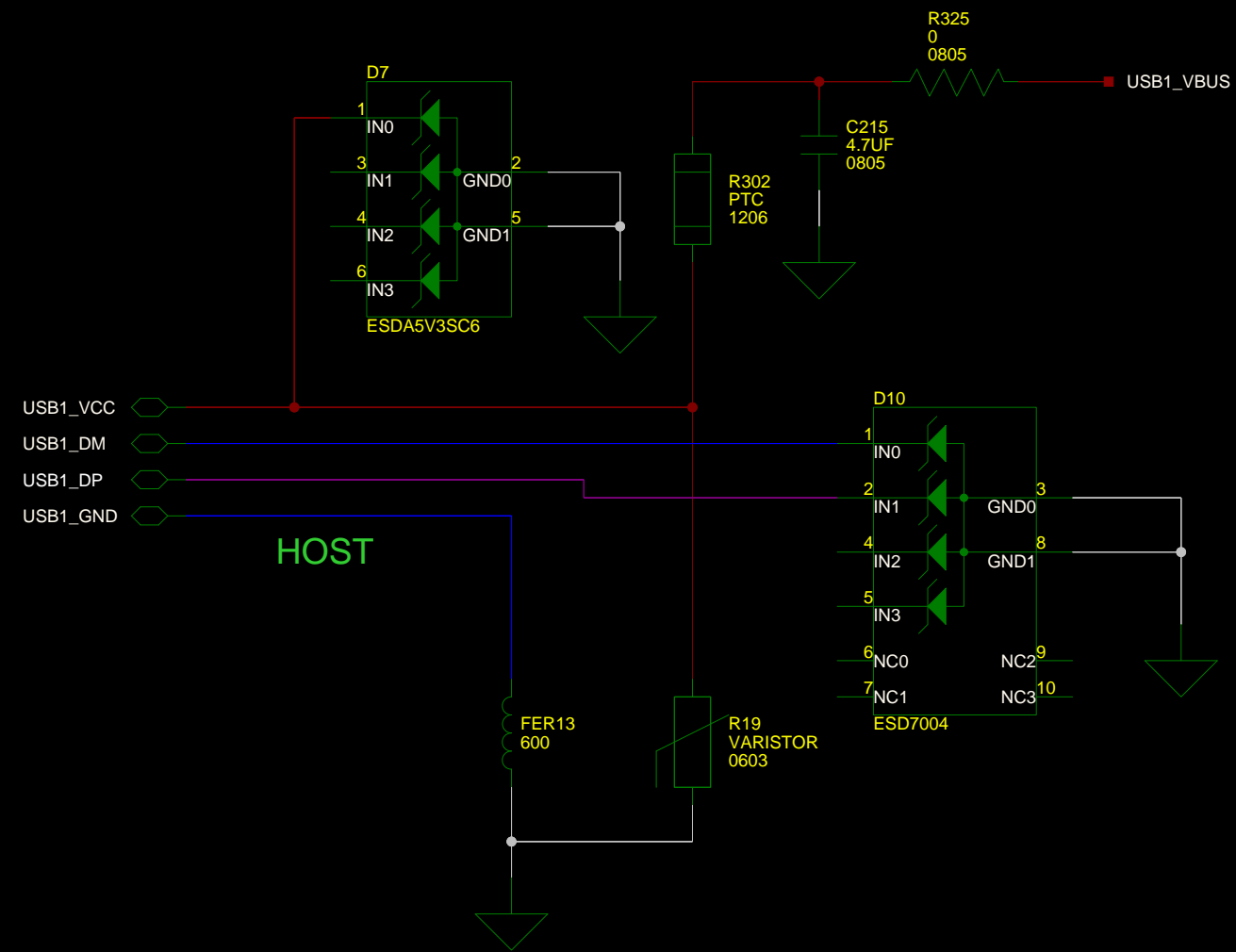
24.576MHz

| | | | |
|---|--------------------------------|--|--|
| | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board Clocks/Boot Mode | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 9 of 18 | | |

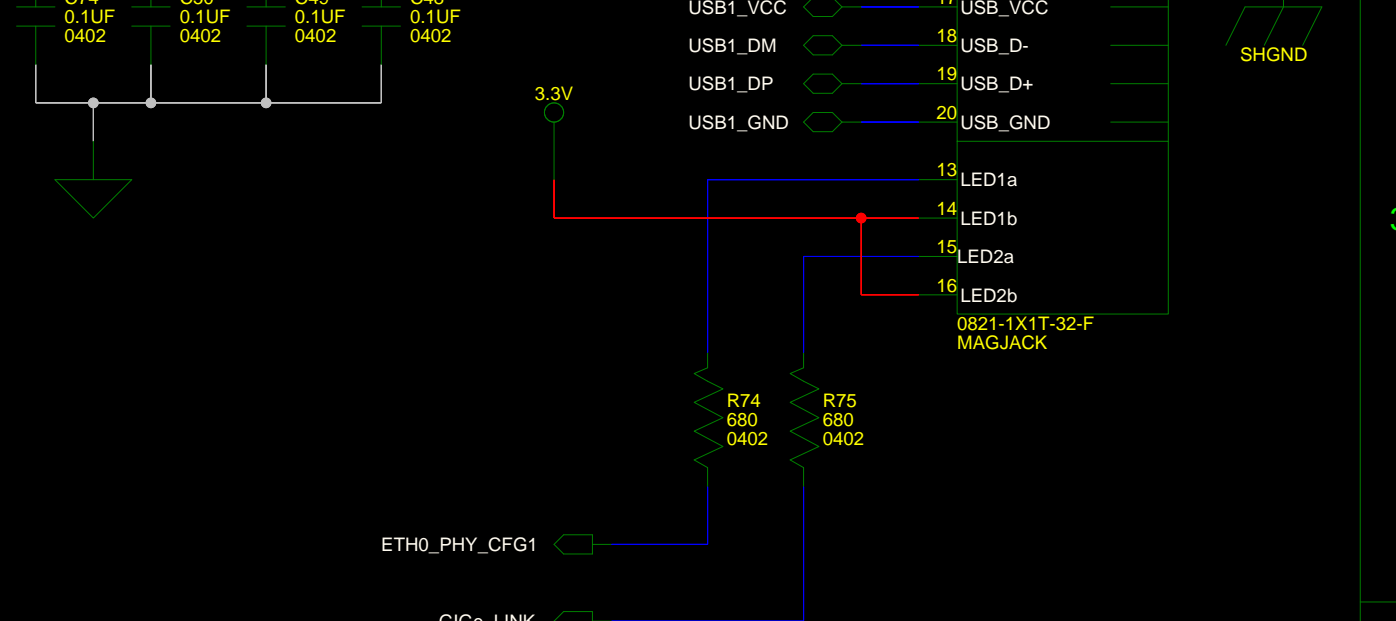
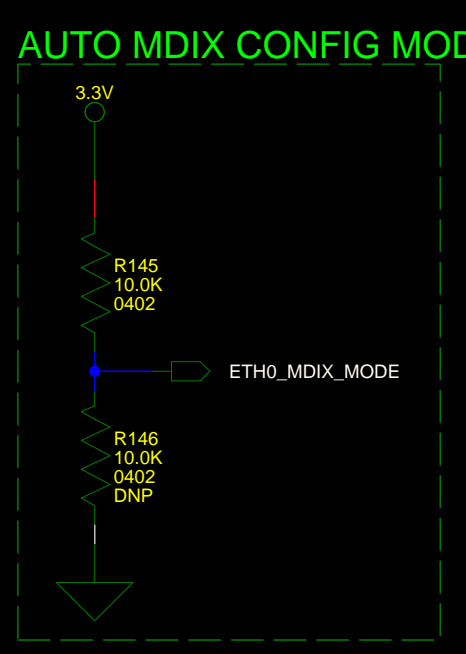
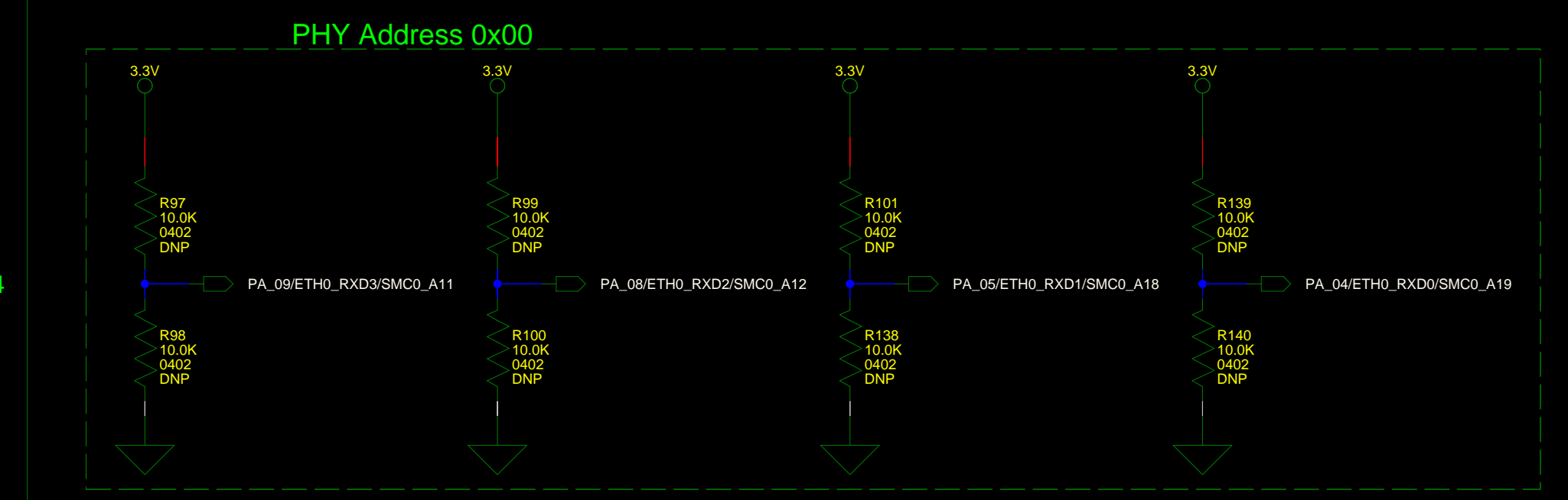
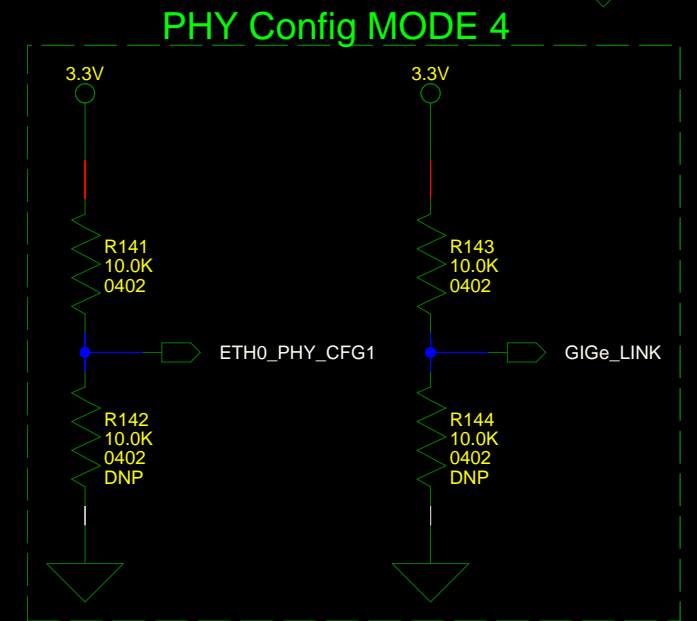
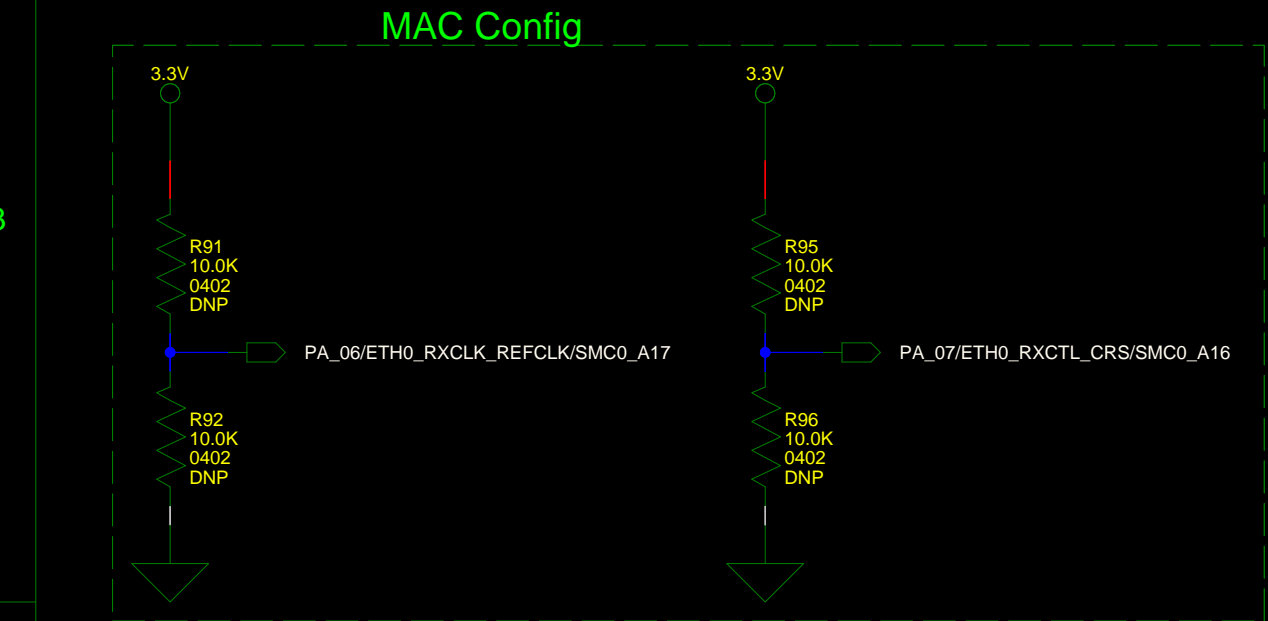
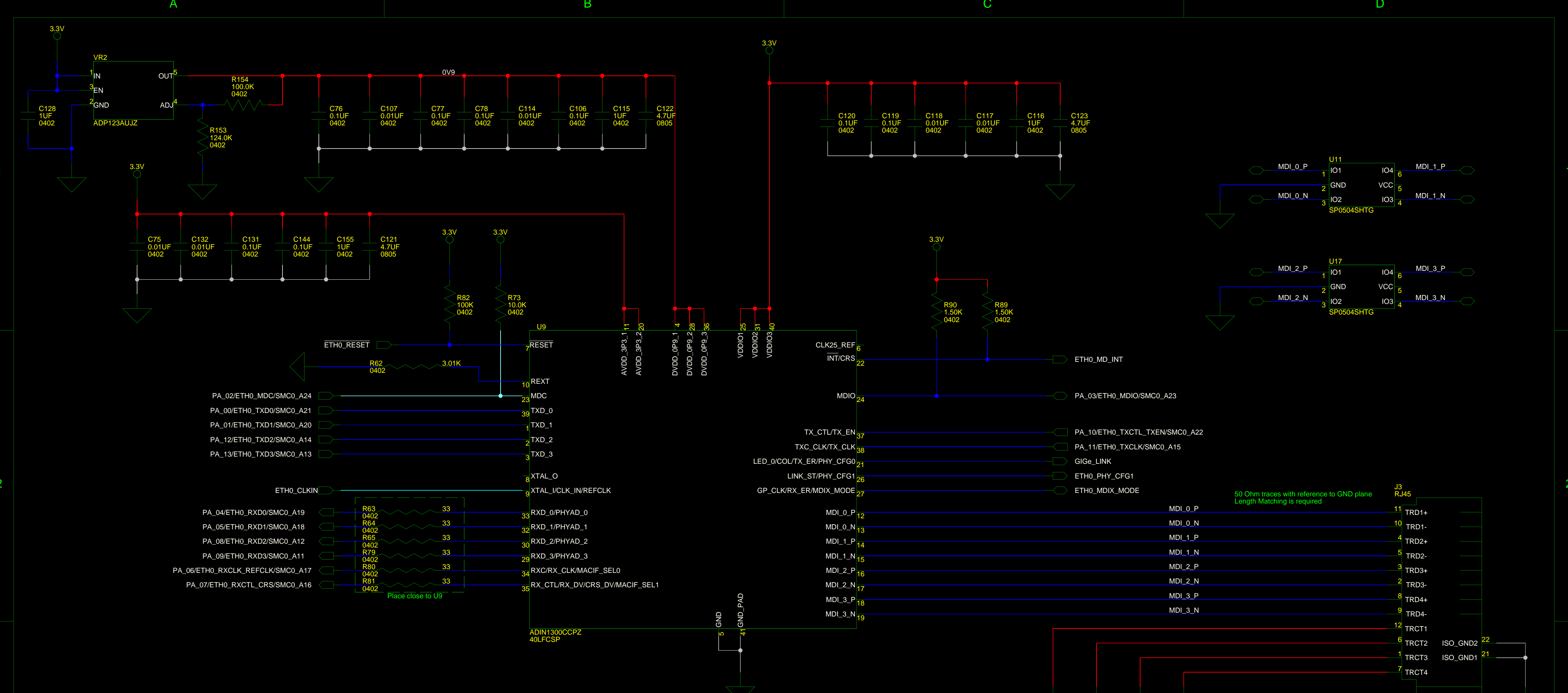
USB
OTG



HOST

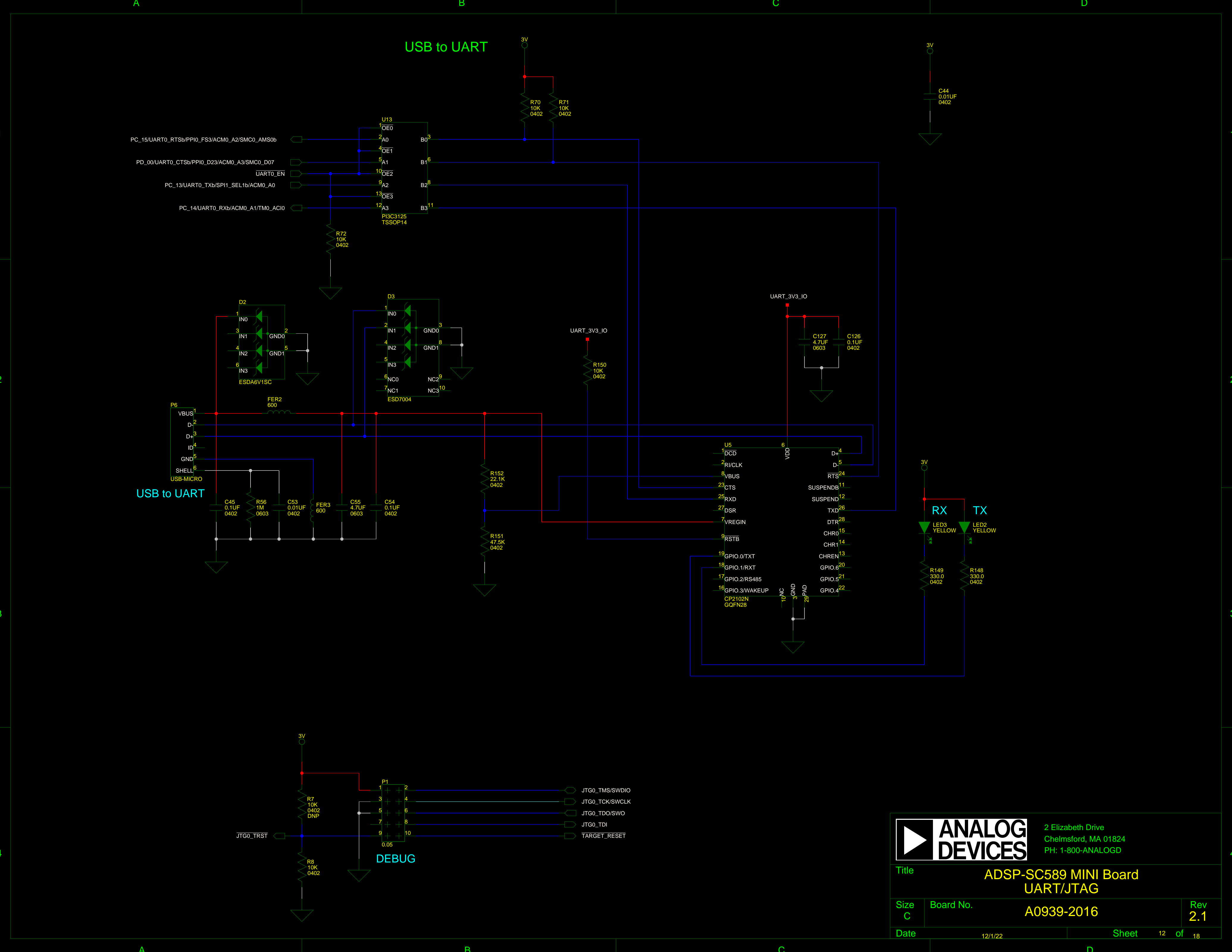



| | | | |
|--|-----------|--|----------------|
| | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board USB | | | |
| Size C | Board No. | A0939-2016 | Rev 2.1 |
| Date | 12/1/22 | Sheet 10 of 18 | |

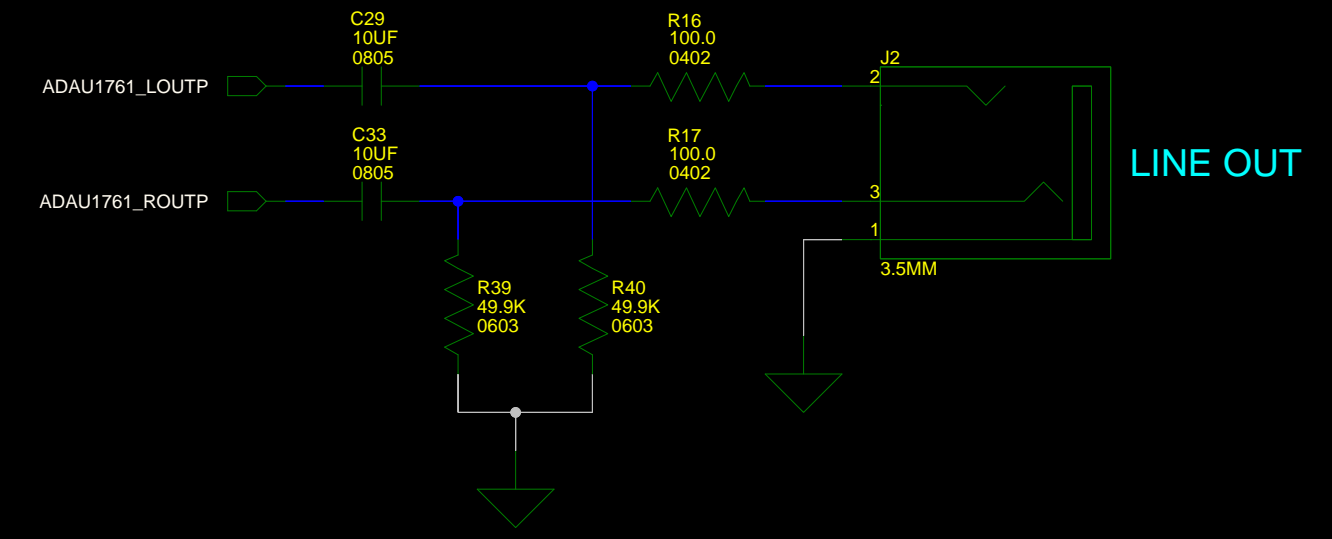
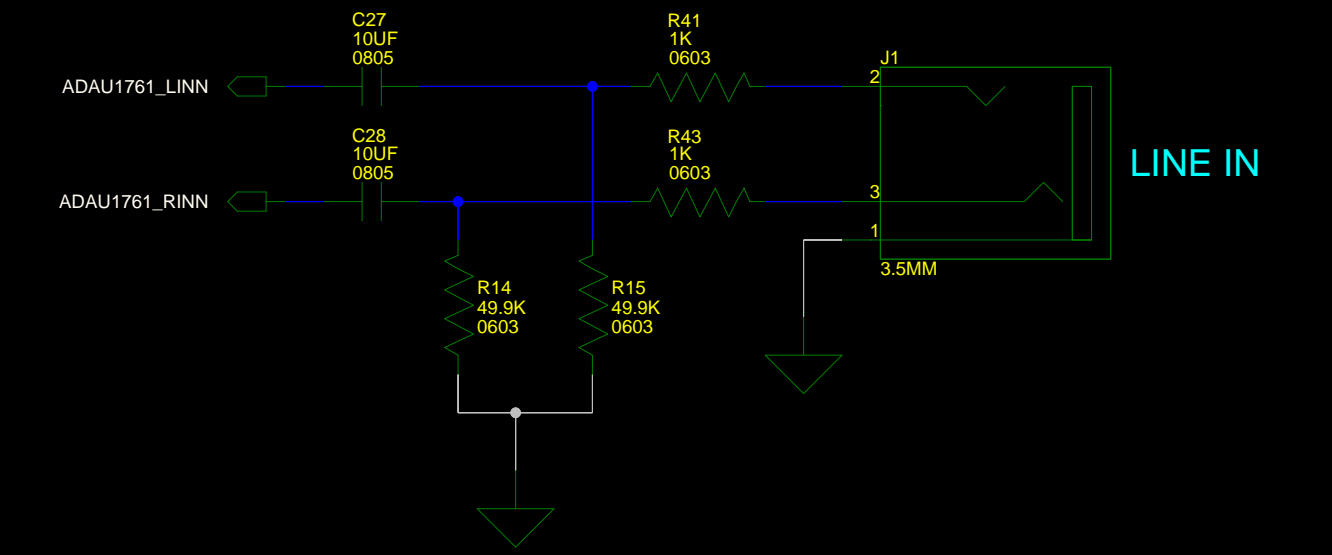
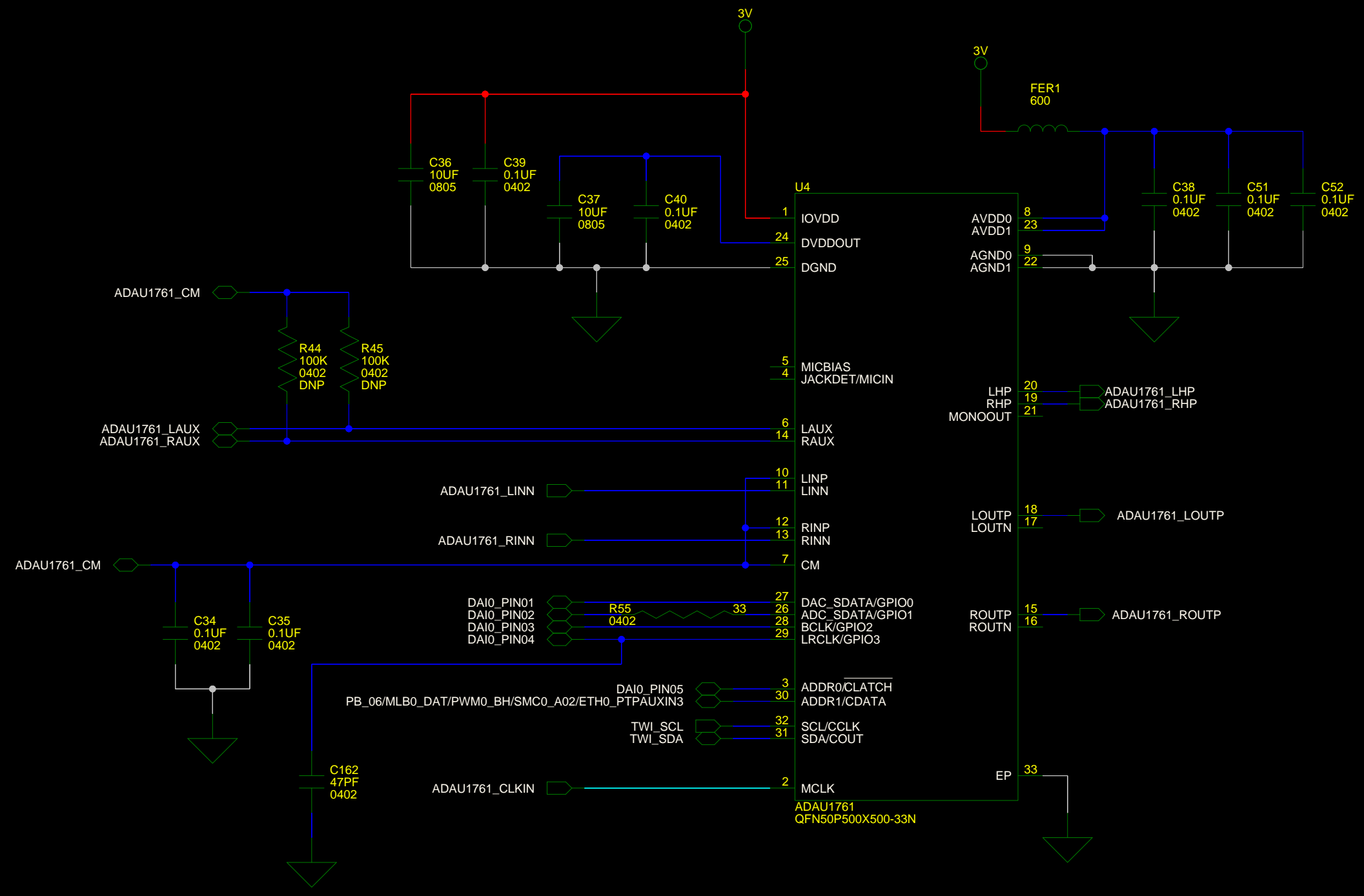
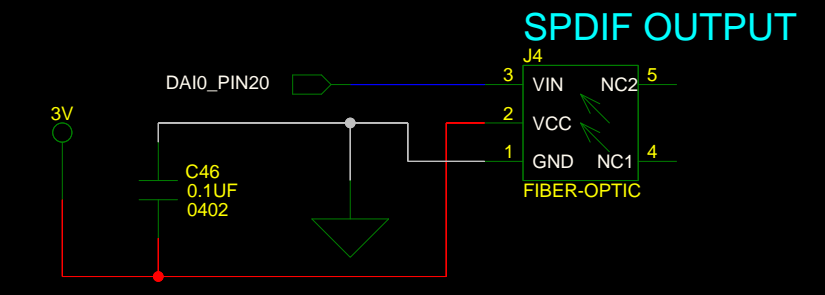
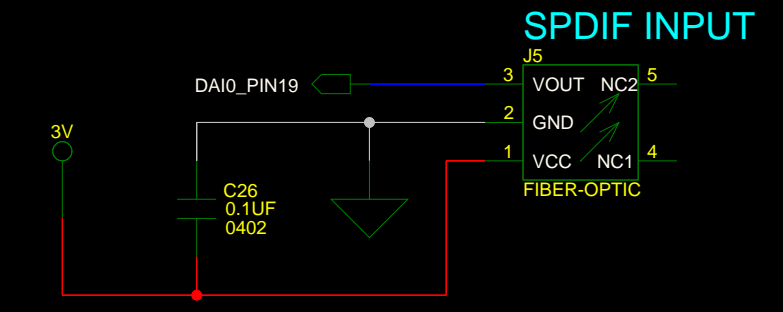
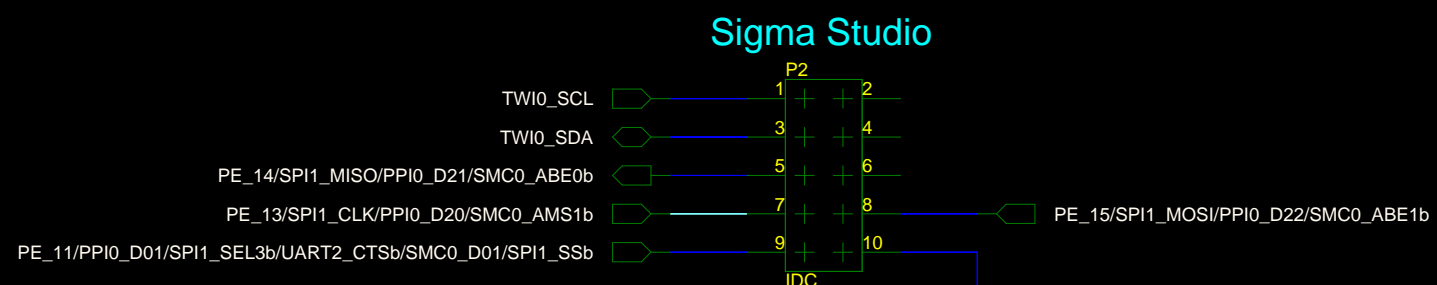


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| | | | |
|--------------|------------------|-------------------|---|
| Title | | | ADSP-SC589 MINI Board ADIN1300 |
| Size | Board No. | A0939-2016 | |
| Date | 12/1/22 | Sheet | 11 of 18 |
| | | Rev | 2.1 |



| | | | |
|---|--------------------------------|--|--|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board UART/JTAG | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 12 of 18 | | |



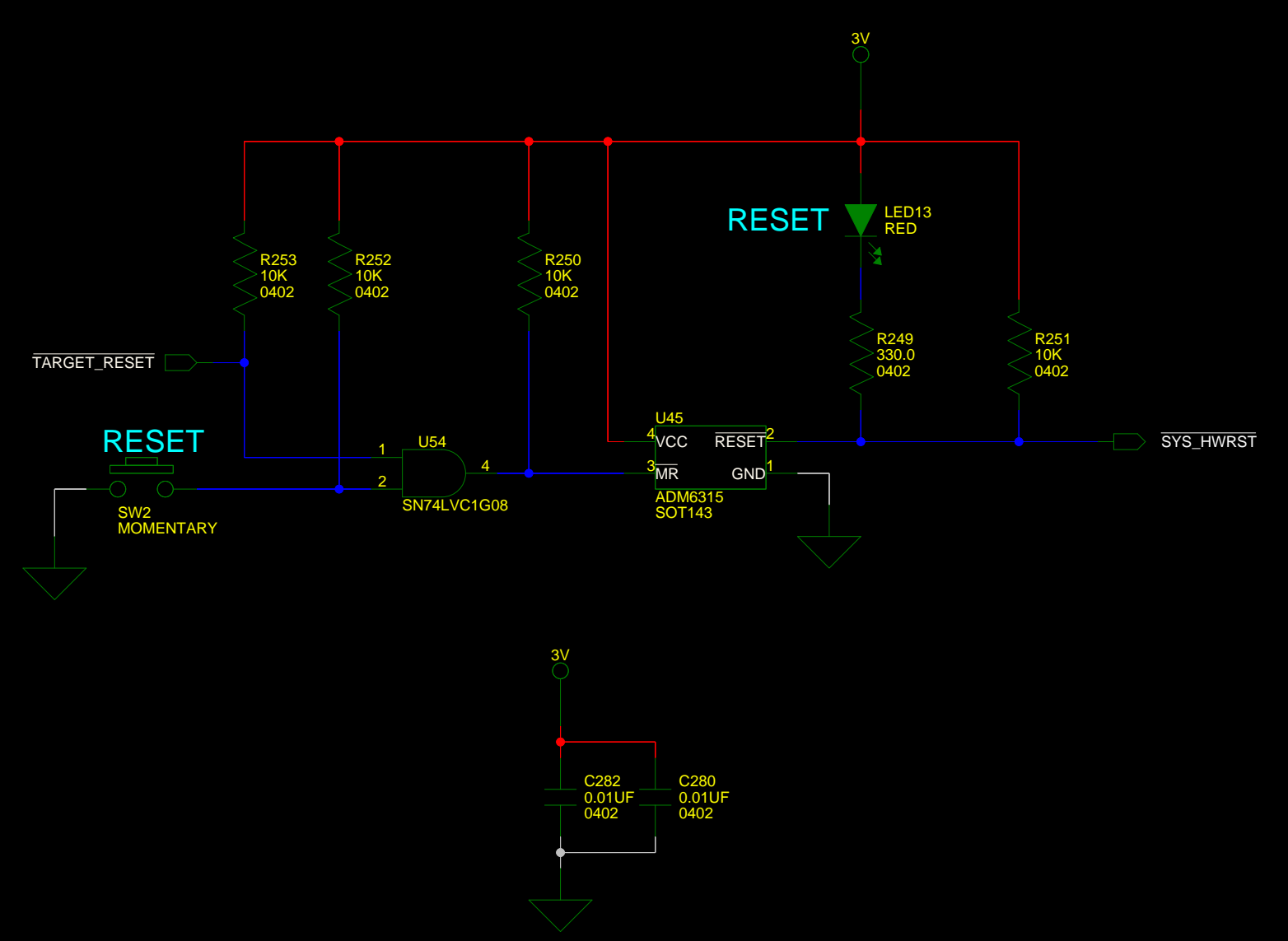
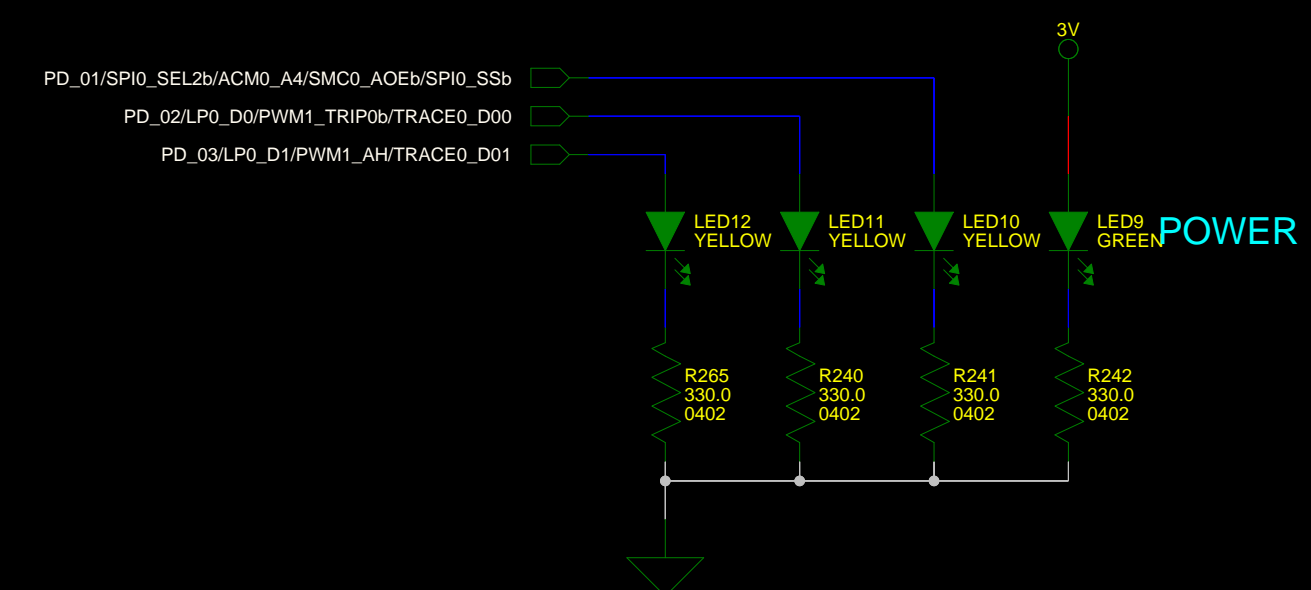
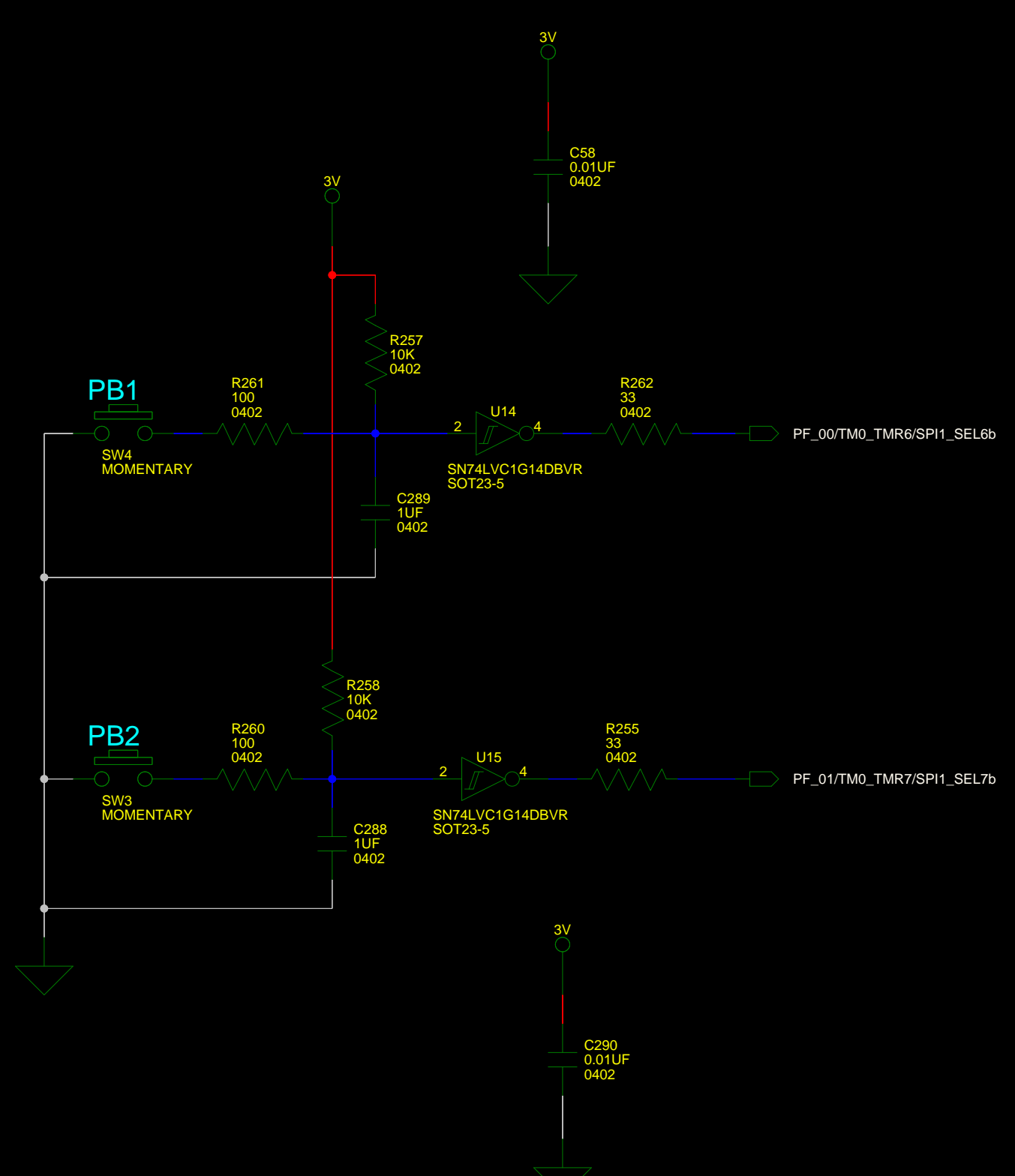
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| | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board ADAU1761 | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 13 of 18 | | |


A

B

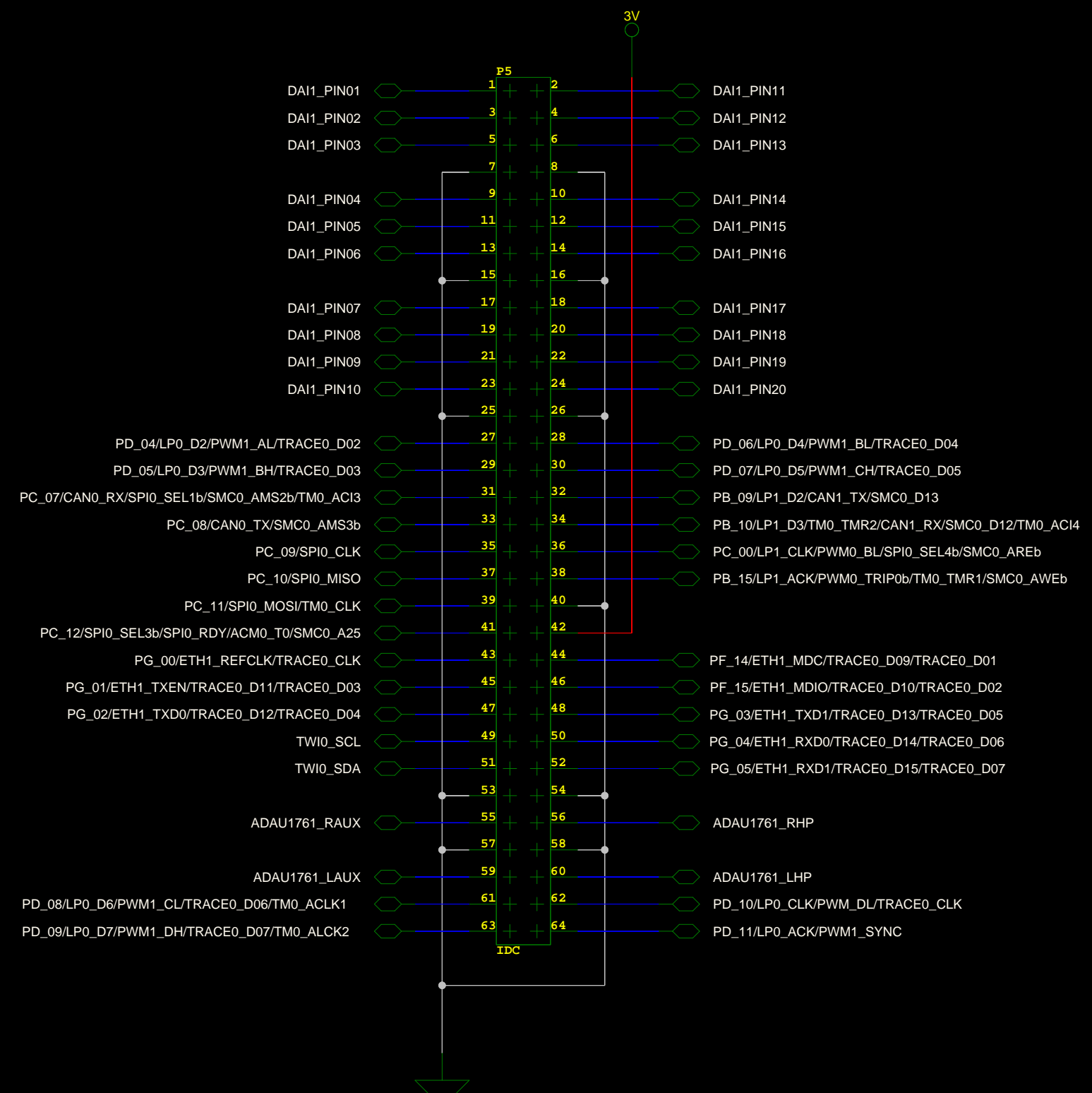
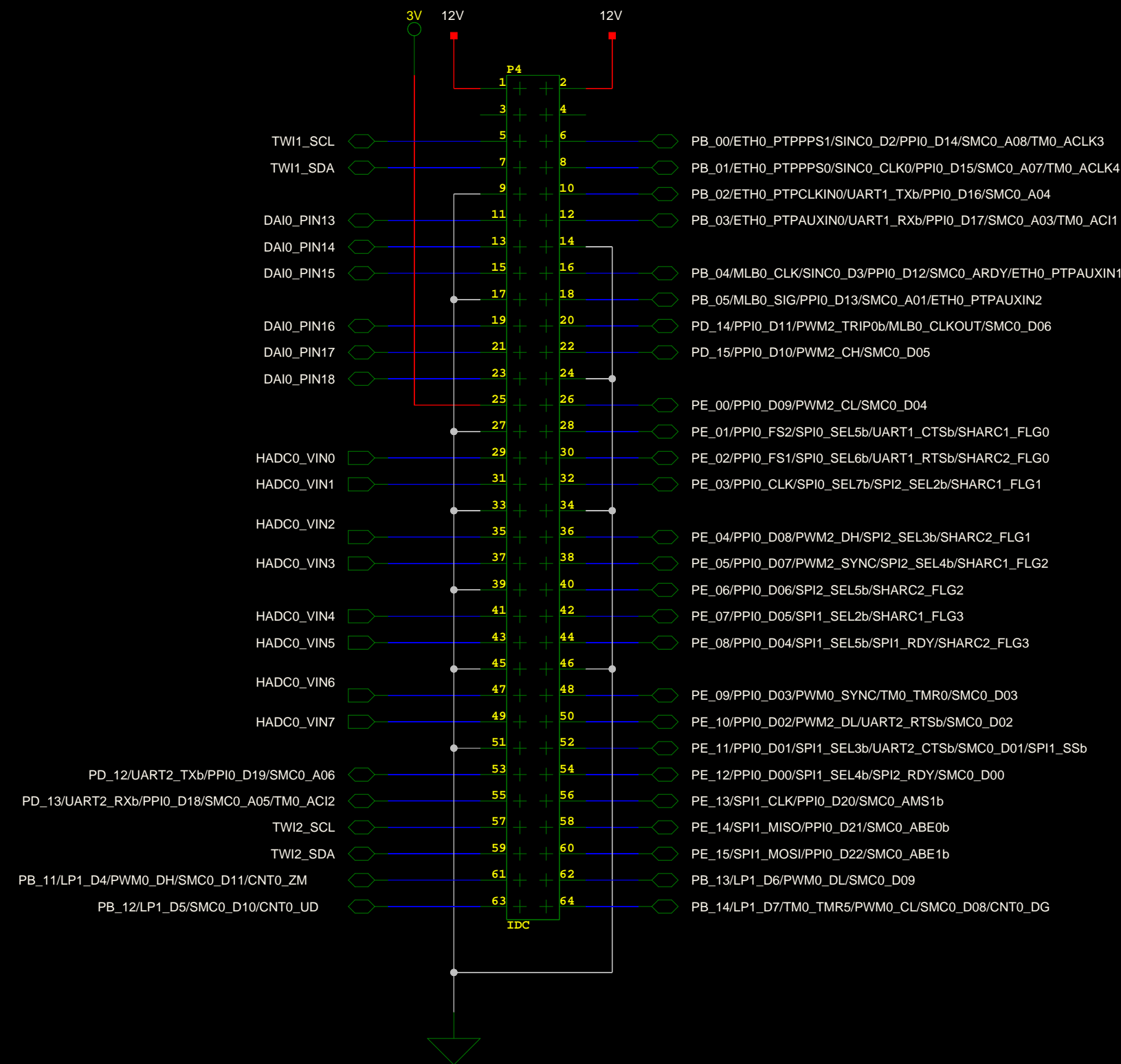
C

D

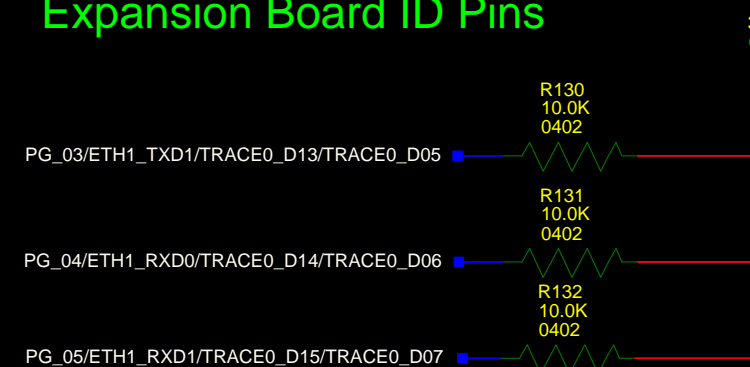


| | | | |
|---|--------------------------------|--|--|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board LEDs/Switches/Reset | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 14 of 18 | | |

Expansion Ports

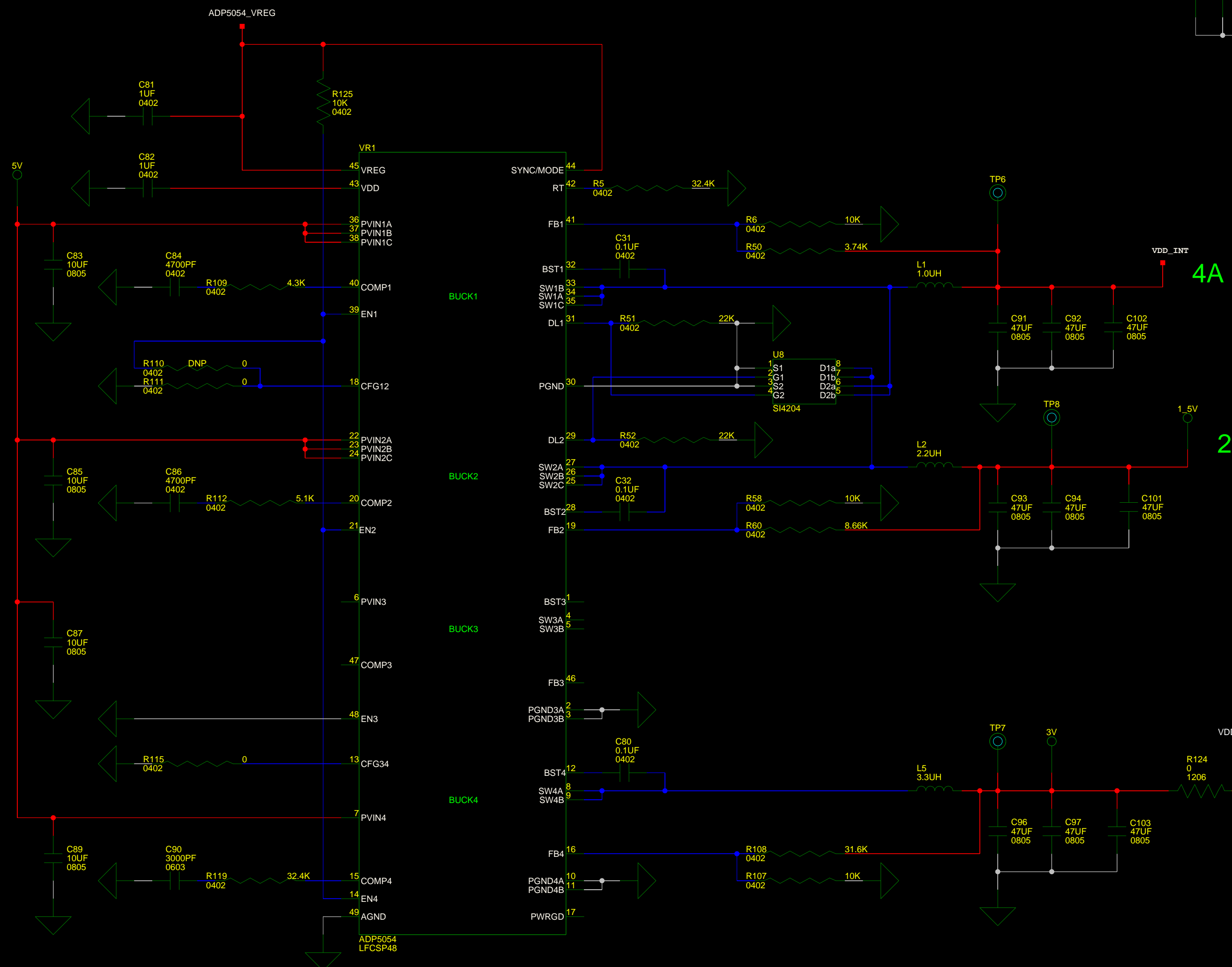


Expansion Board ID Pins

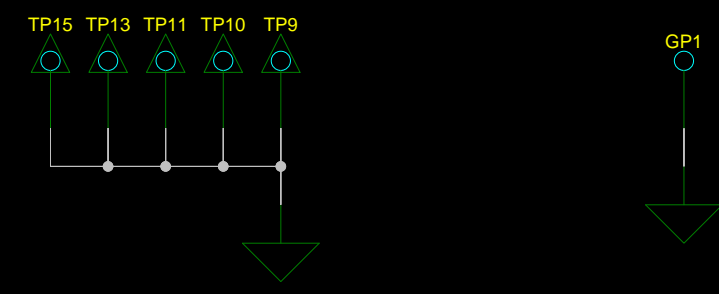



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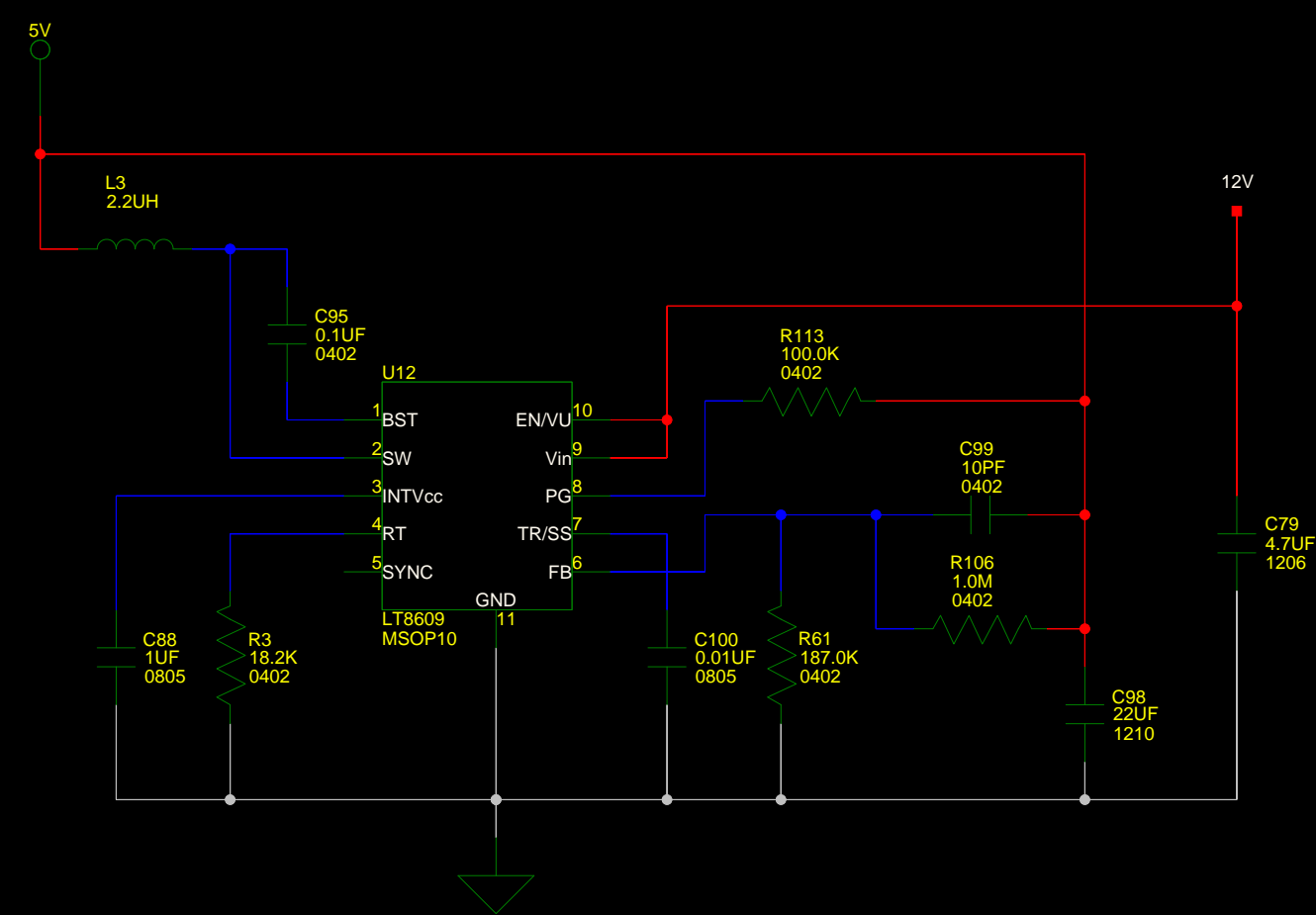
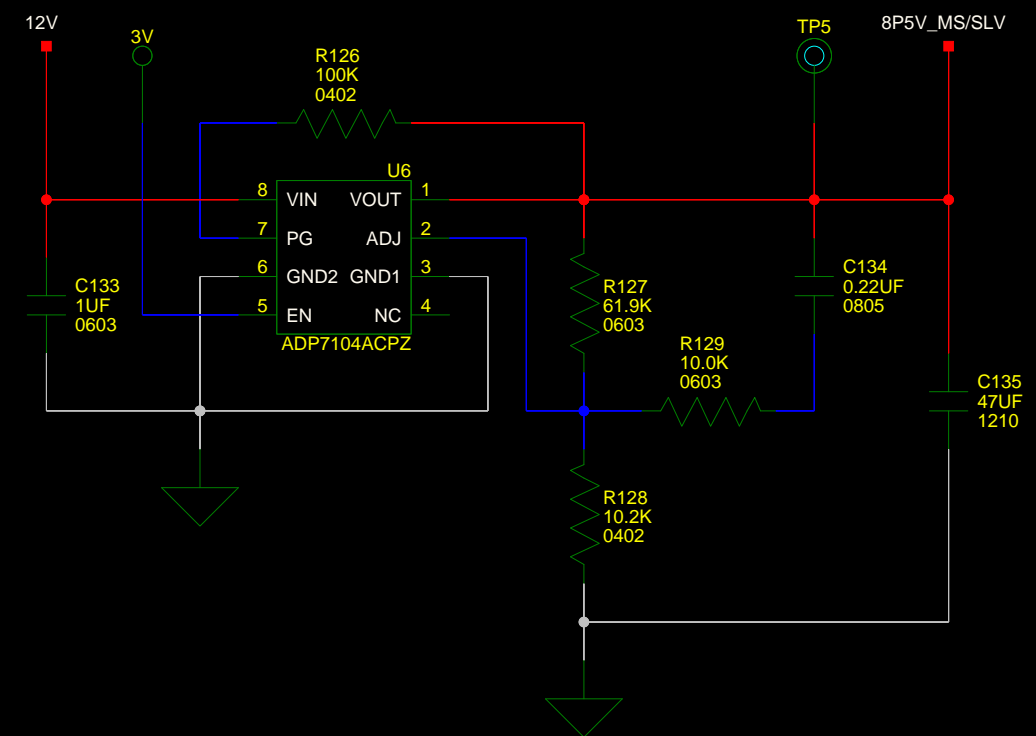
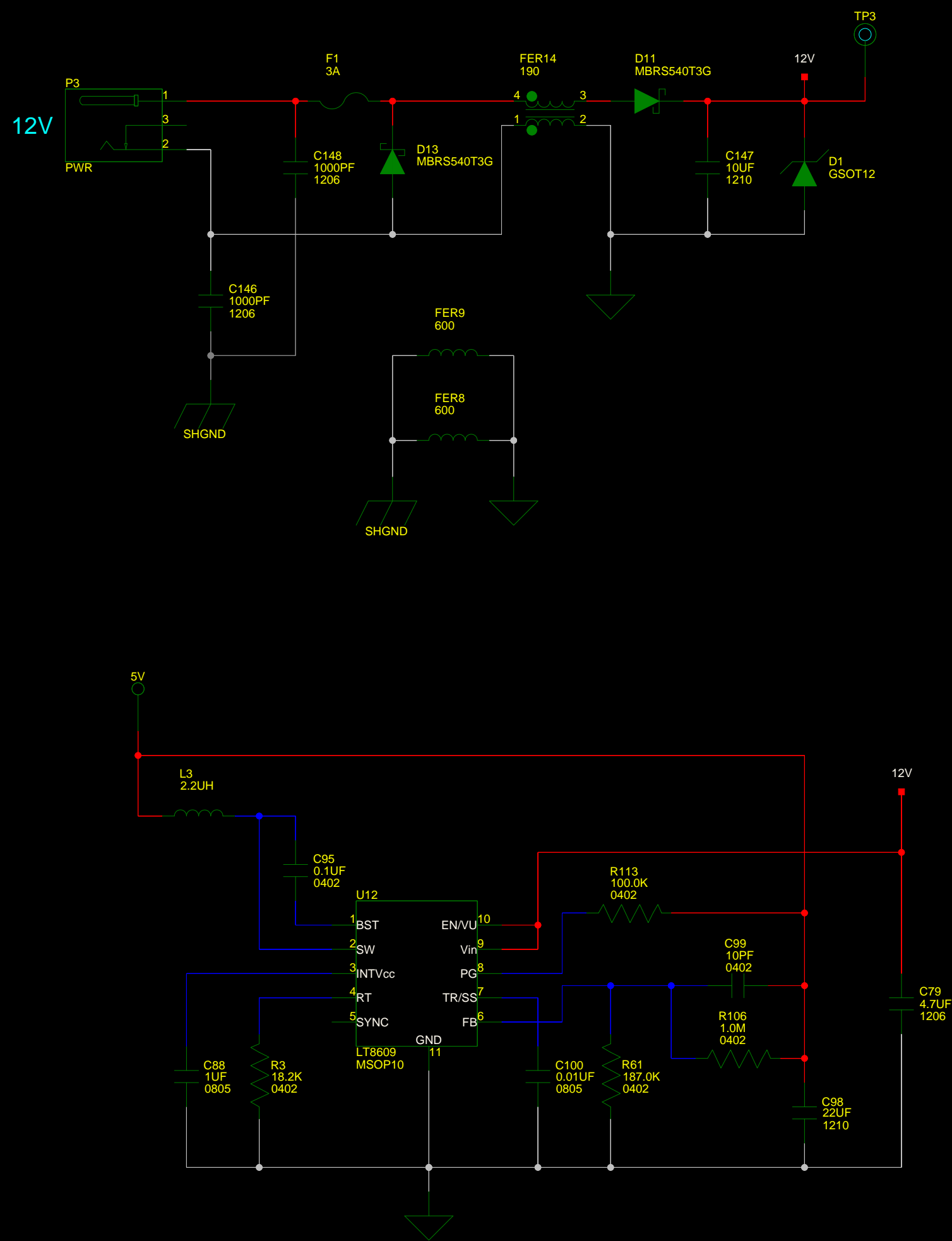
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| Title | | | ADSP-SC589 MINI Board Expansion Ports | | |
| Size | Board No. | | | | Rev |
| C | A0939-2016 | | | | 2.1 |
| Date | 12/1/22 | Sheet | 15 | of | 18 |




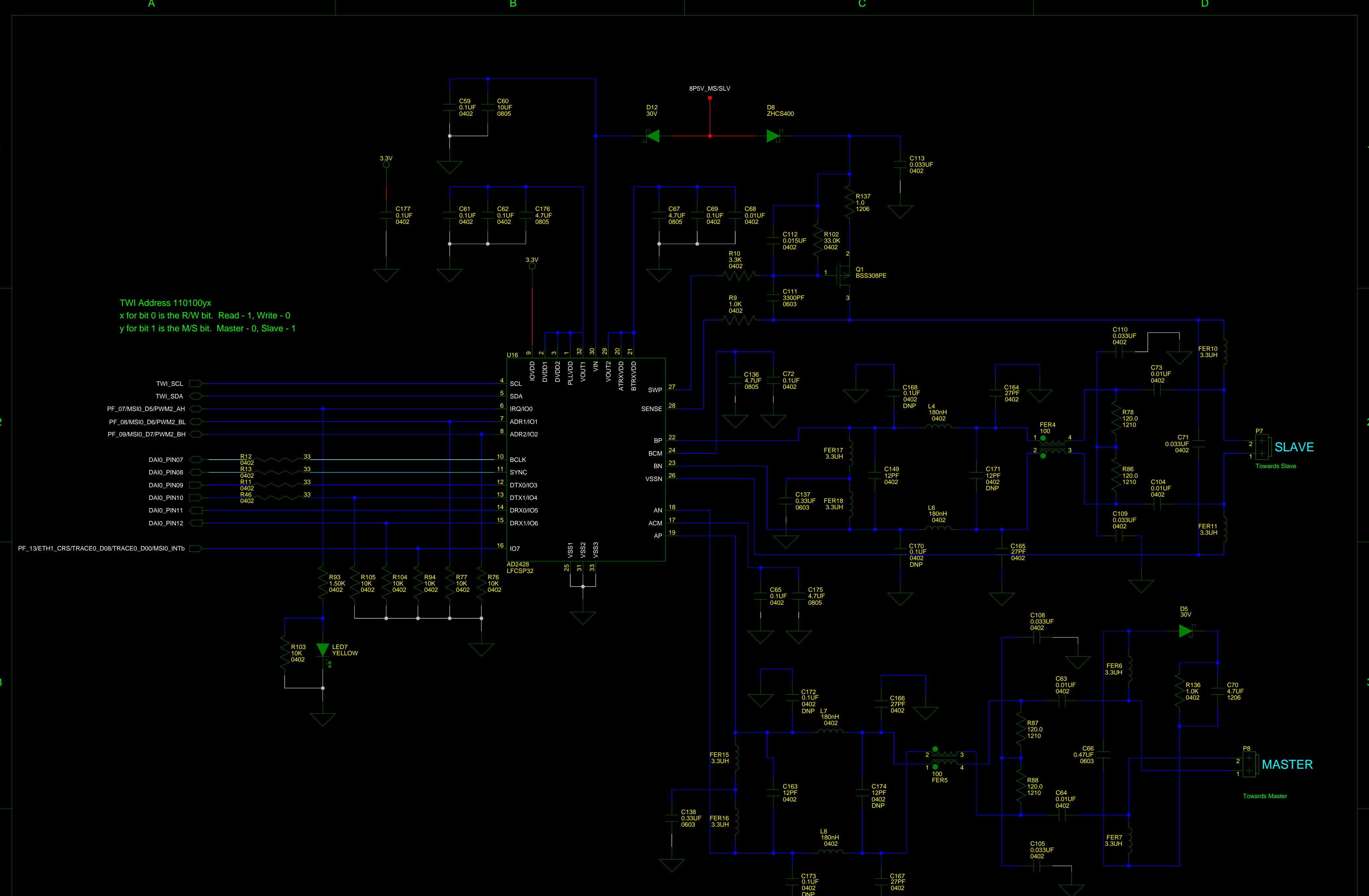
GND Test Points are scattered on PCB for Test Measurement Purposes.
 LABEL "GND" ON ALL TPs



| | | | |
|---|--------------------------------|--|-----------|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board DSP Power | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 16 | of 18 | 18 |



| | | | |
|---|--------------------------------|--|--|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board Main Power | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 17 of 18 | | |




TWI Address 110100yx
 x for bit 0 is the R/W bit. Read - 1, Write - 0
 y for bit 1 is the M/S bit. Master - 0, Slave - 1

- TWL_SCL
- TWL_SDA
- PF_07/MSIO_D5/PWM2_AH
- PF_08/MSIO_D6/PWM2_BL
- PF_09/MSIO_D7/PWM2_BH
- DAI0_PIN07
- DAI0_PIN08
- DAI0_PIN09
- DAI0_PIN10
- DAI0_PIN11
- DAI0_PIN12
- PF_13/ETH1_CRS/TRACE0_D08/TRACE0_D00/MSIO_INTD

SLAVE
 Towards Slave

MASTER
 Towards Master

| | | | |
|---|-----------------------------|--|--|
|  | | 2 Elizabeth Drive Chelmsford, MA 01824 PH: 1-800-ANALOGD | |
| Title ADSP-SC589 MINI Board A2B Master/Slave Node | | | |
| Size C | Board No. A0939-2016 | Rev 2.1 | |
| Date 12/1/22 | Sheet 18 | of 18 | |