

USB-UART 4-Channel Evaluation Board

Exar XR21V1414 based 4-Channel USB-UART Evaluation Board with RS-232 and RS-485 interfaces

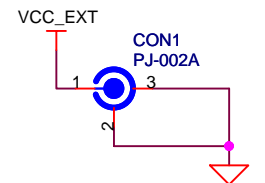
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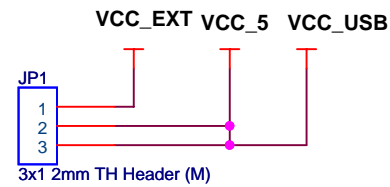
**EXAR
XR21V1414
Rev 2.2**

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NOT INSTALLED



External Power Input:
4-5.5V, 1A
2.1 mm ID, 5.5 mm OD



Power Select Header Jumper Options:

Short pins 2-1 => The board is powered from external power supply of 5V (self-powered)

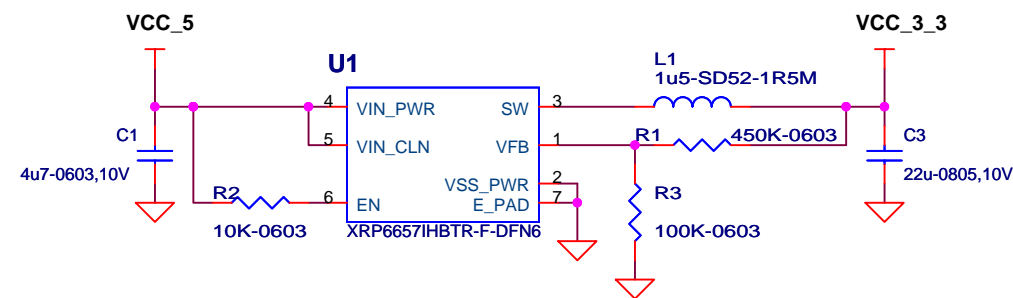
Short pins 2-3 => The board is powered from USB VBUS power (bus-powered)

Notes:

[1] This jumper can also be used for current/power measurement of the board. Remove the jumper and connect probe instead of the jumper.

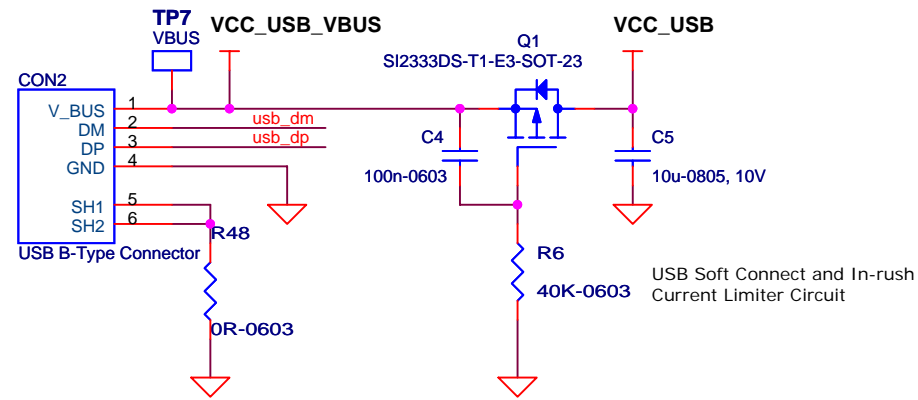
[2] The necessary strapping options must be selected for the USB-UART chip for the bus-powered or self-powered configurations.

[3] None of these pins should be opened in the power plane to support the isolation of the traces.

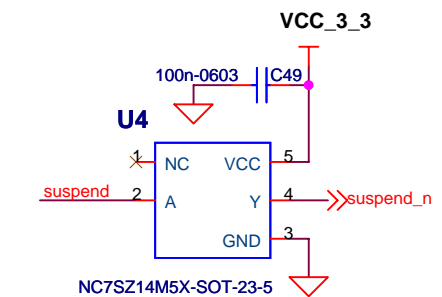
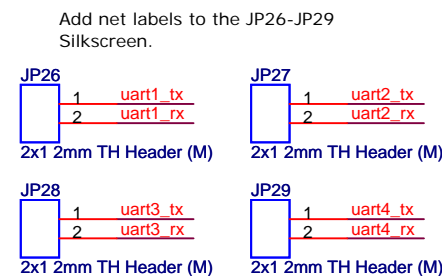
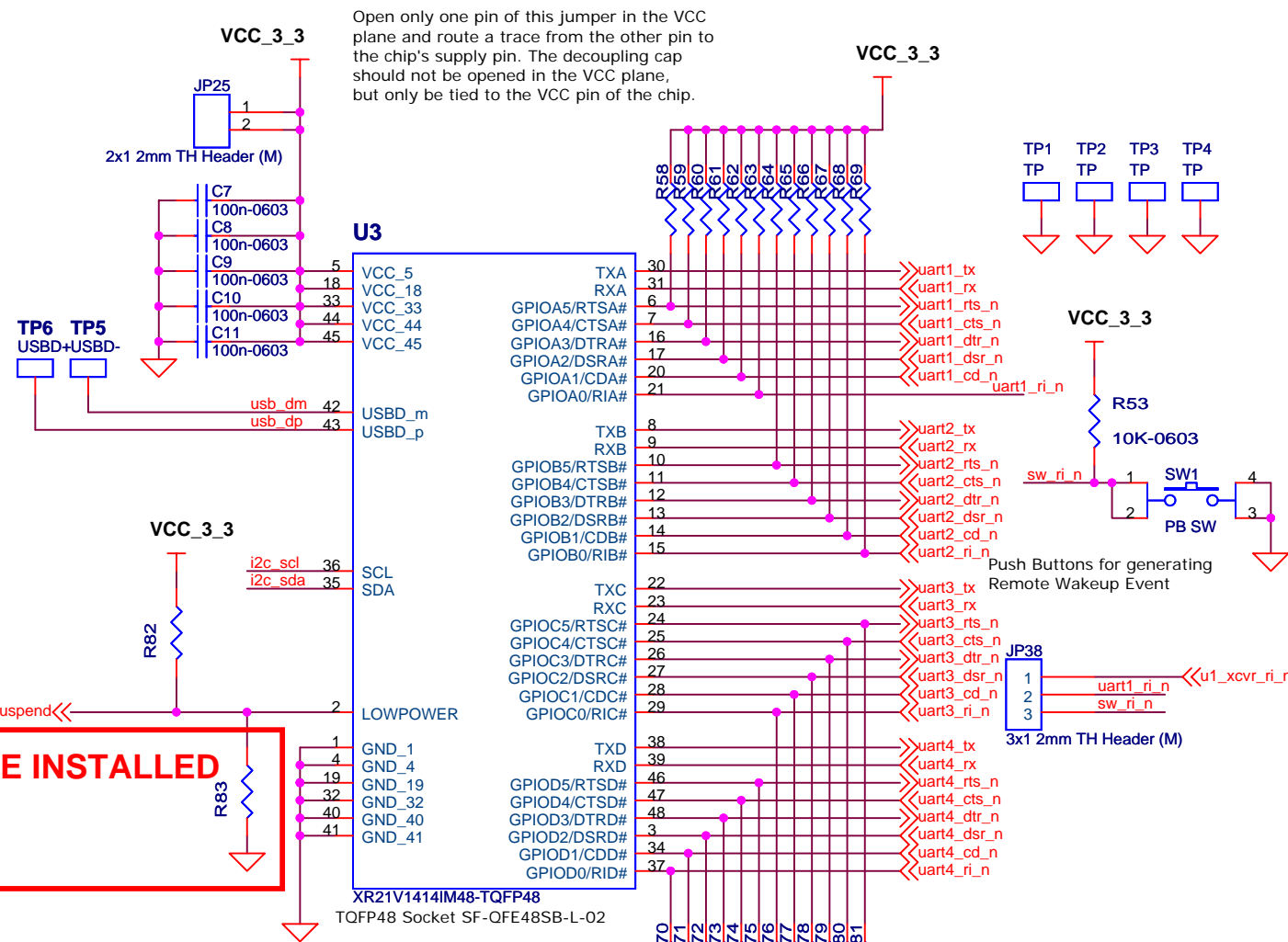
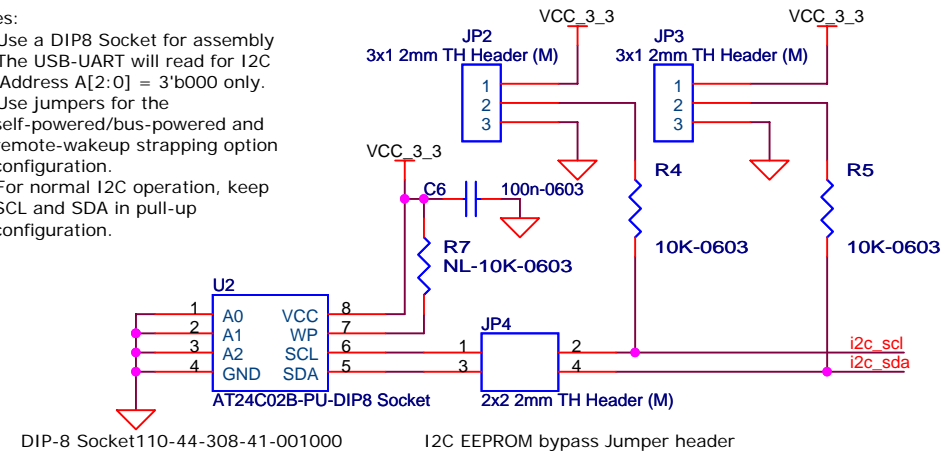


NOTE: For self-power, EN pin should be connected to VCC_USB

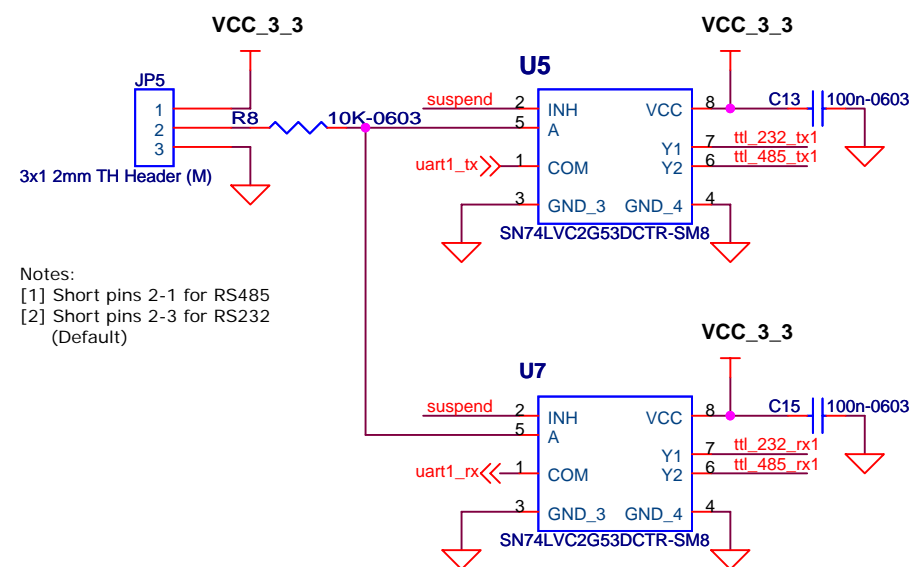
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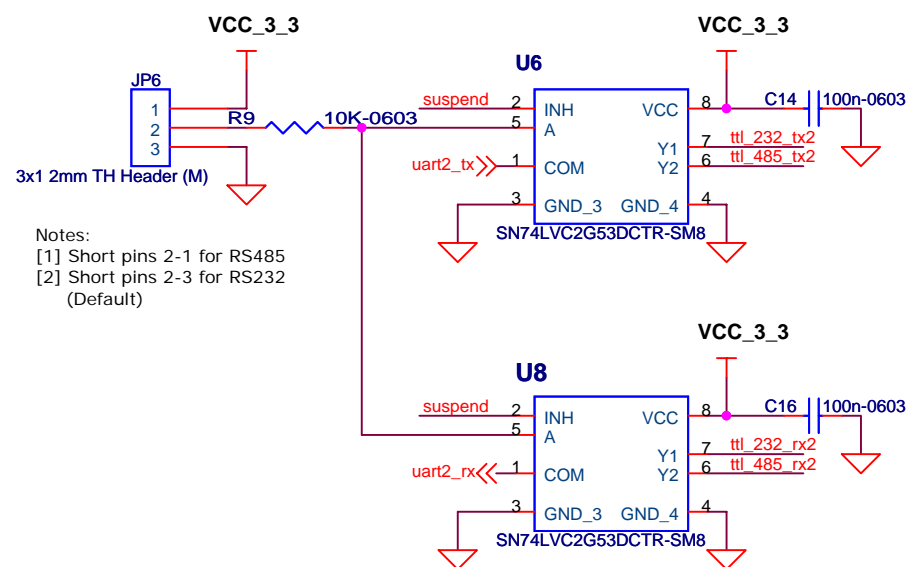
- Notes:
- [1] Use a DIP8 Socket for assembly
 - [2] The USB-UART will read for I2C Address A[2:0] = 3'b000 only.
 - [3] Use jumpers for the self-powered/bus-powered and remote-wakeup strapping option configuration.
 - [4] For normal I2C operation, keep SCL and SDA in pull-up configuration.



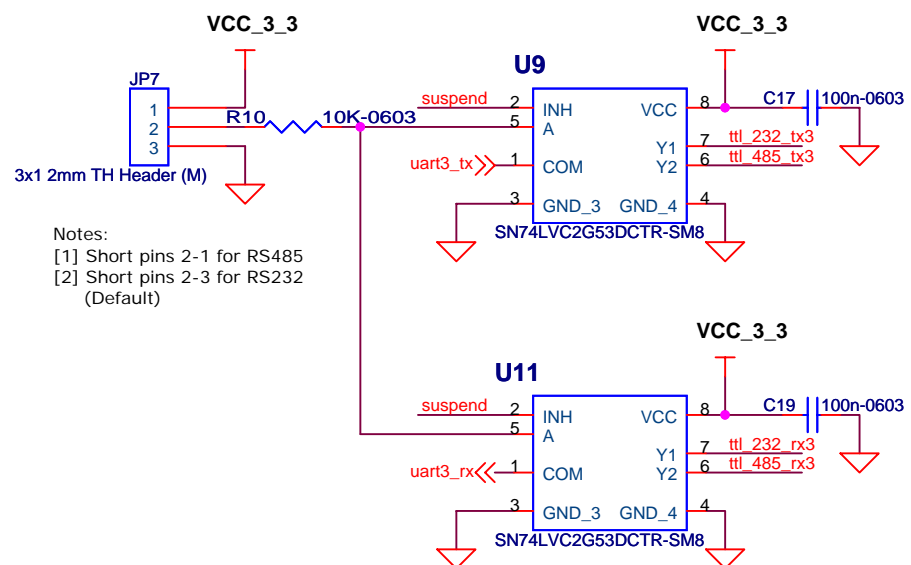
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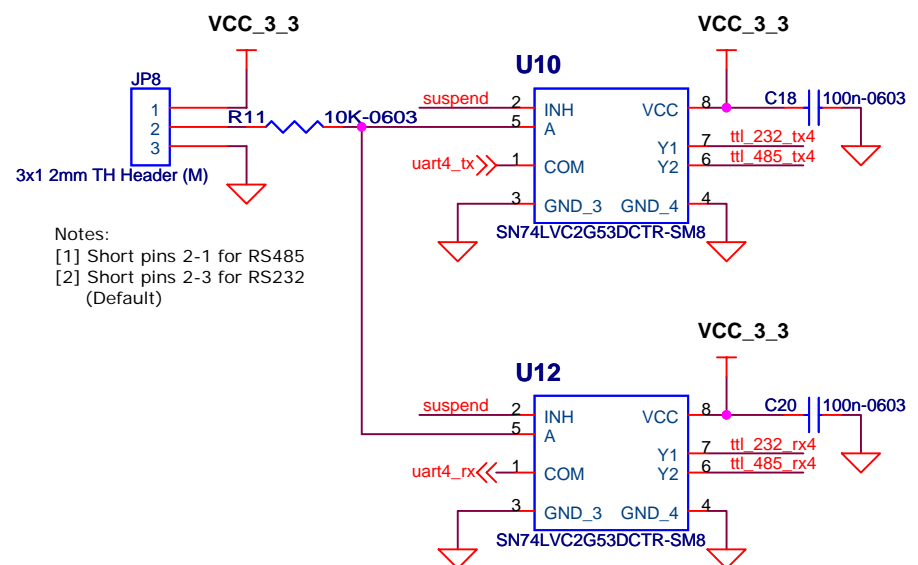
Notes:
 [1] Short pins 2-1 for RS485
 [2] Short pins 2-3 for RS232 (Default)



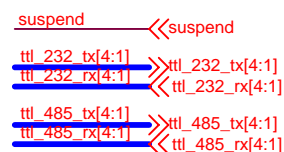
Notes:
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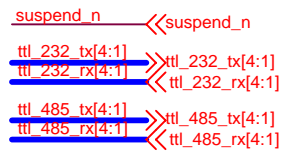
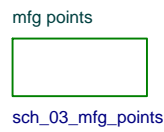
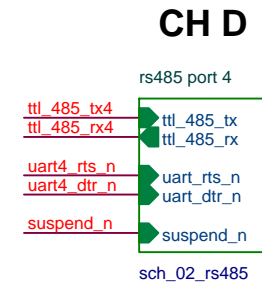
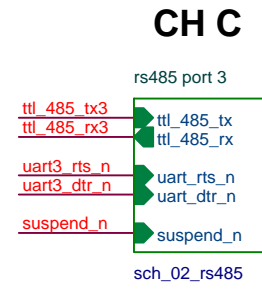
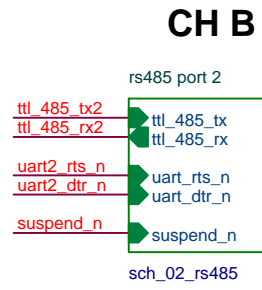
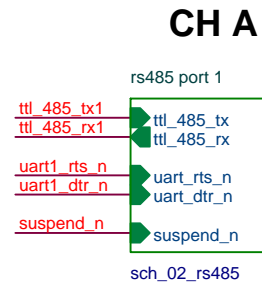
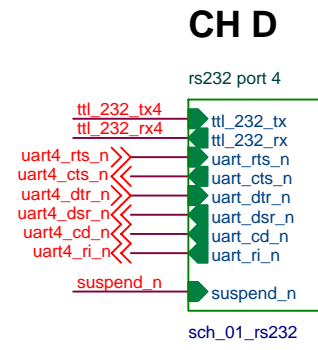
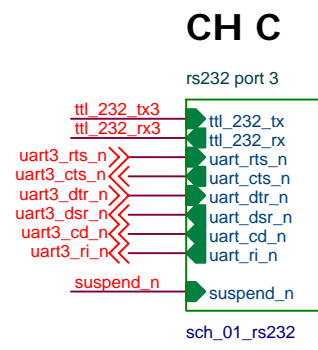
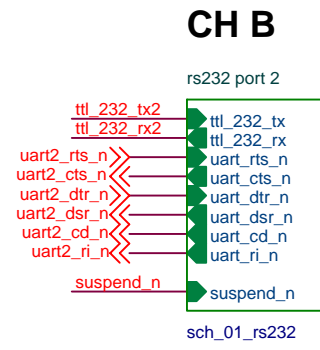
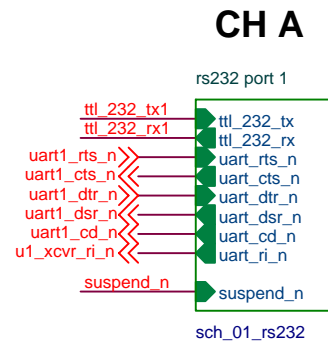
Notes:
 [1] Short pins 2-1 for RS485
 [2] Short pins 2-3 for RS232 (Default)



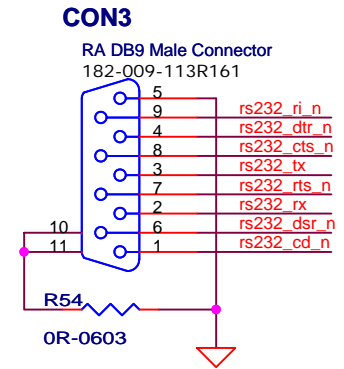
Notes:
 [1] Short pins 2-1 for RS485
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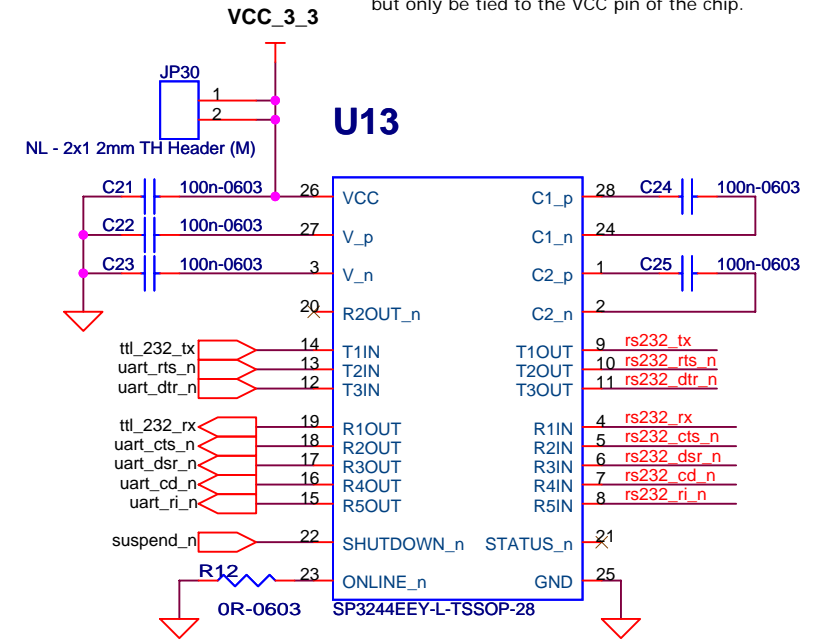
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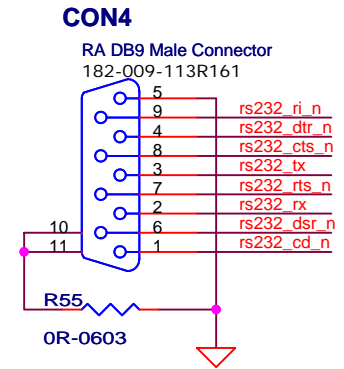


Open only one pin of this jumper in the VCC plane and route a trace from the other pin to the chip's supply pin. The decoupling cap should not be opened in the VCC plane, but only be tied to the VCC pin of the chip.

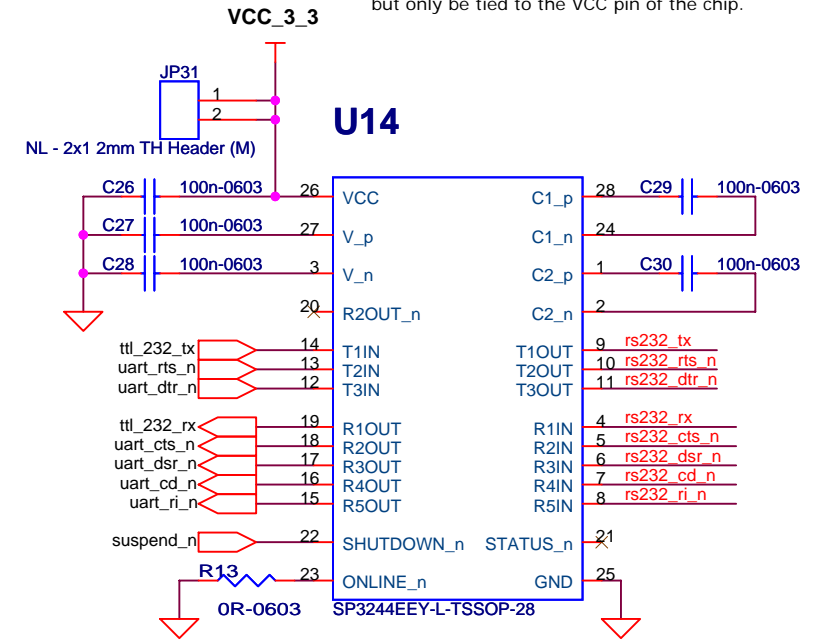


NOTE: When using SP3243, tie pin 23 to VCC_3_3

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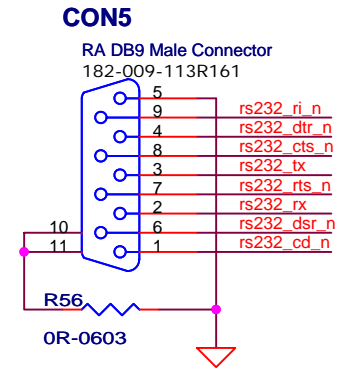


Open only one pin of this jumper in the VCC plane and route a trace from the other pin to the chip's supply pin. The decoupling cap should not be opened in the VCC plane, but only be tied to the VCC pin of the chip.

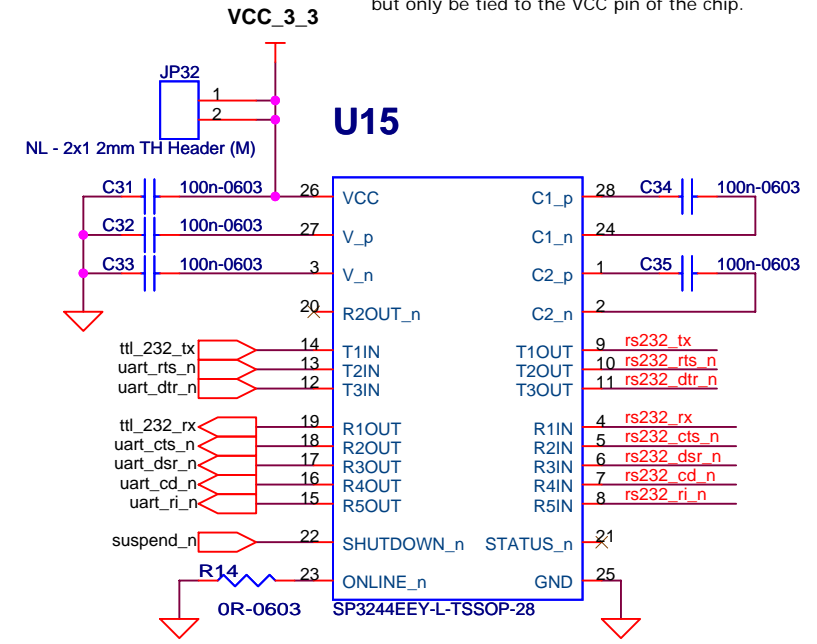


NOTE: When using SP3243, tie pin 23 to VCC_3_3

Schematic		sch_01_rs232		RS-232 Transceiver	
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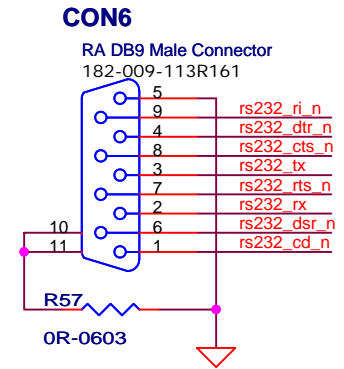


Open only one pin of this jumper in the VCC plane and route a trace from the other pin to the chip's supply pin. The decoupling cap should not be opened in the VCC plane, but only be tied to the VCC pin of the chip.

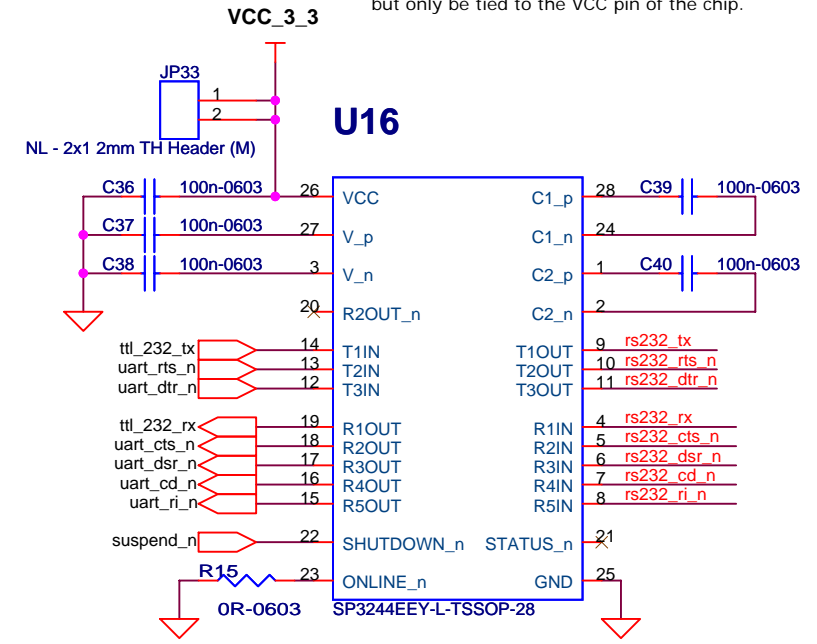


NOTE: When using SP3243, tie pin 23 to VCC_3_3

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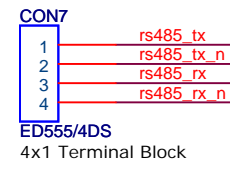


Open only one pin of this jumper in the VCC plane and route a trace from the other pin to the chip's supply pin. The decoupling cap should not be opened in the VCC plane, but only be tied to the VCC pin of the chip.

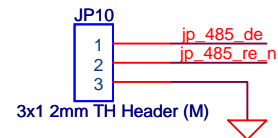


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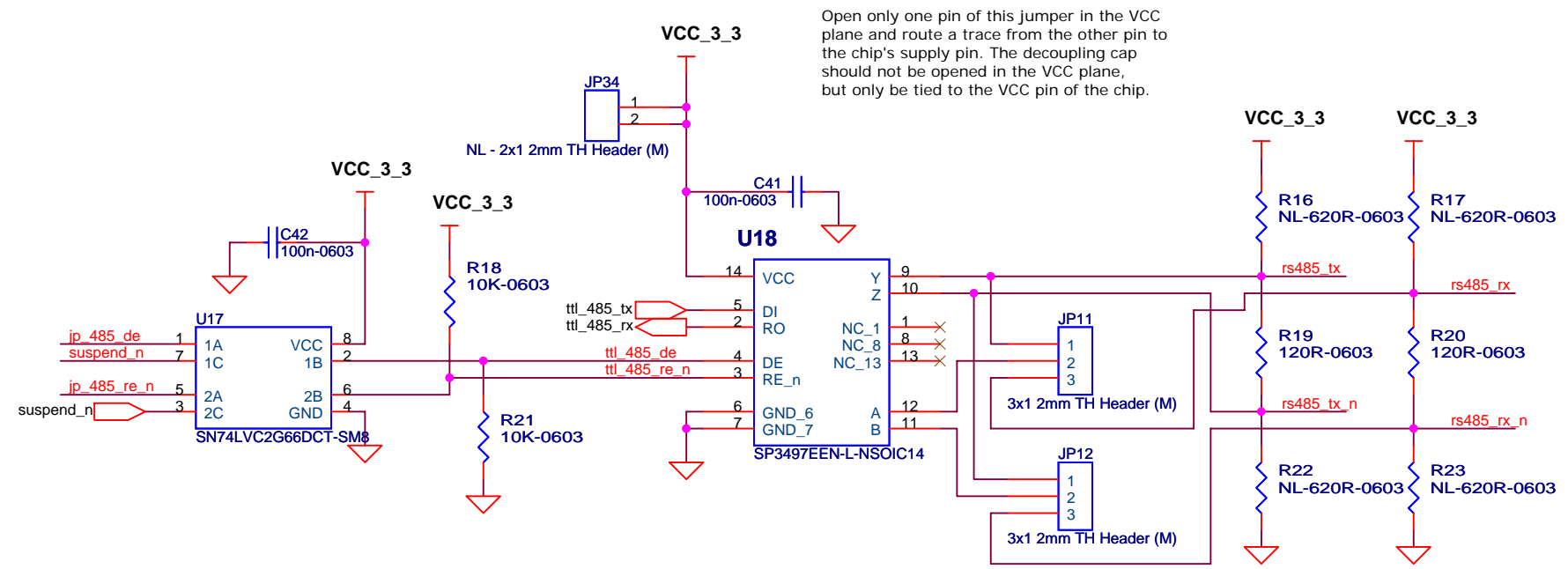
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Notes:
 [1] Short pins 2-1 for RTS based direction control for TX
 [2] Short pins 2-3 for DTR based direction control for TX (Default)

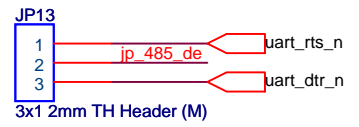
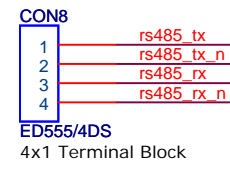


Notes:
 [1] Short pins 2-1 for common direction control for RX and TX (Default)
 [2] Short pins 2-3 for always enabled RX (This will result in TX Echo mode in Half Duplex Mode)

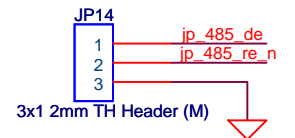


Notes:
 [1] Short pins 2-1 for Half Duplex Mode
 [2] Short pins 2-3 for Full Duplex Mode (Default)
 [3] TX channel is used for TX and RX in Half Duplex Mode

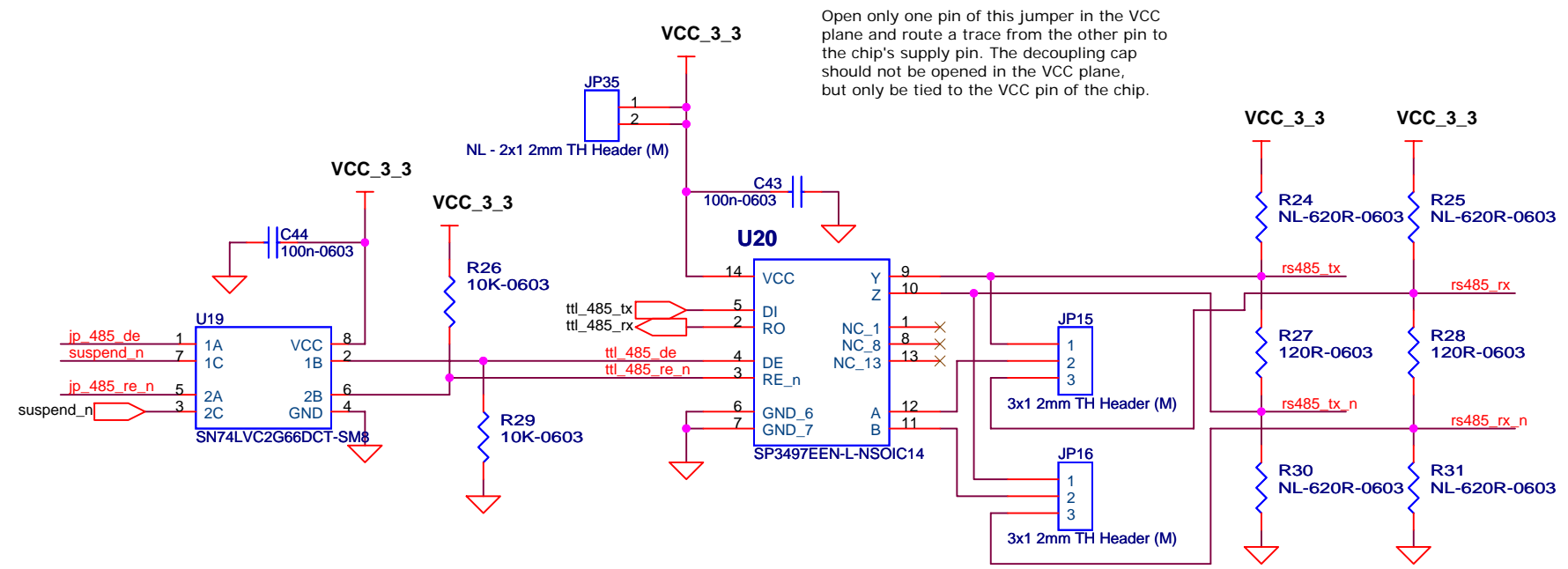
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Notes:
 [1] Short pins 2-1 for RTS based direction control for TX
 [2] Short pins 2-3 for DTR based direction control for TX (Default)

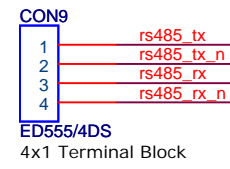


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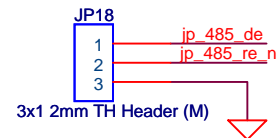


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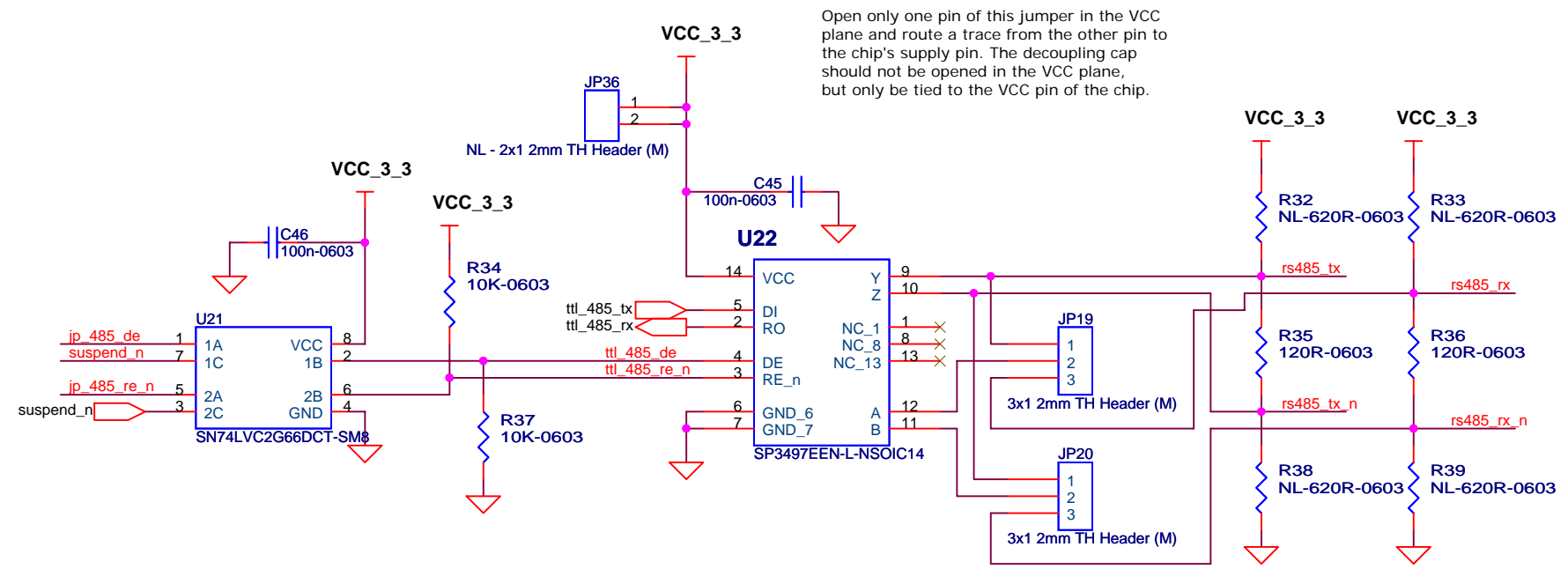
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Notes:
 [1] Short pins 2-1 for RTS based direction control for TX
 [2] Short pins 2-3 for DTR based direction control for TX (Default)

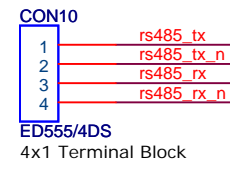


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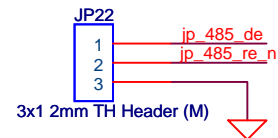


Notes:
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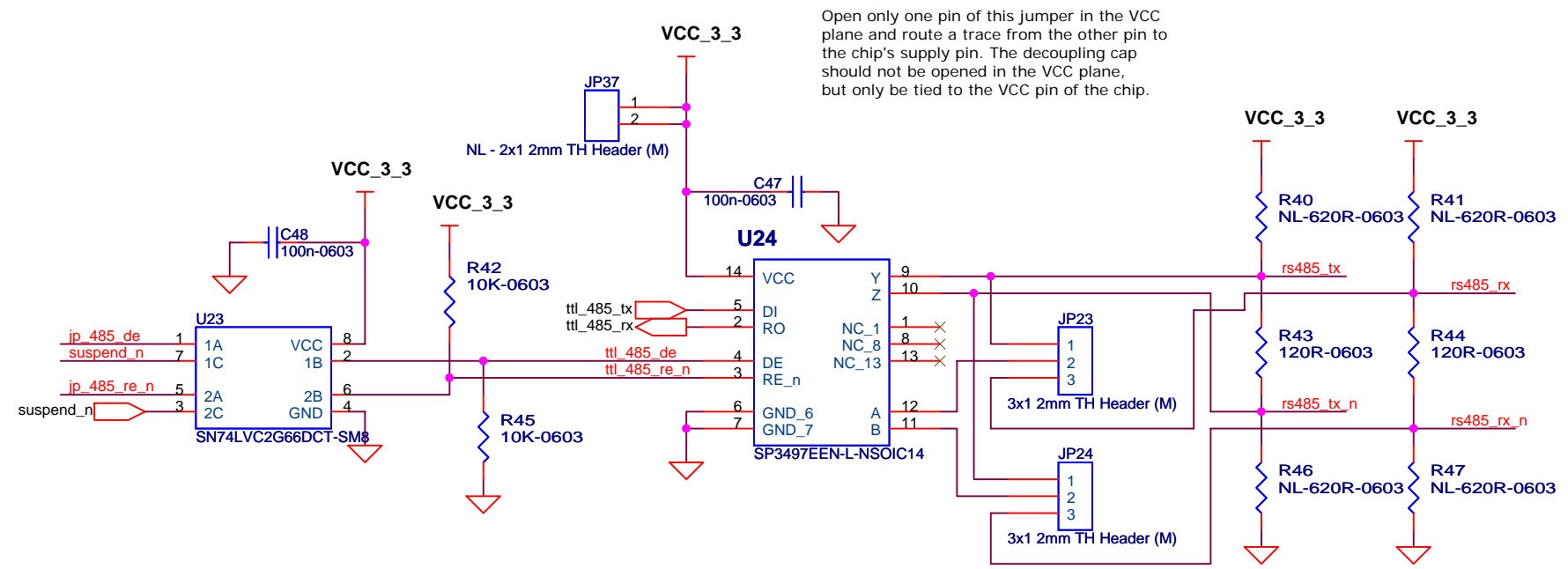
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Notes:
[1] Short pins 2-1 for RTS based direction control for TX
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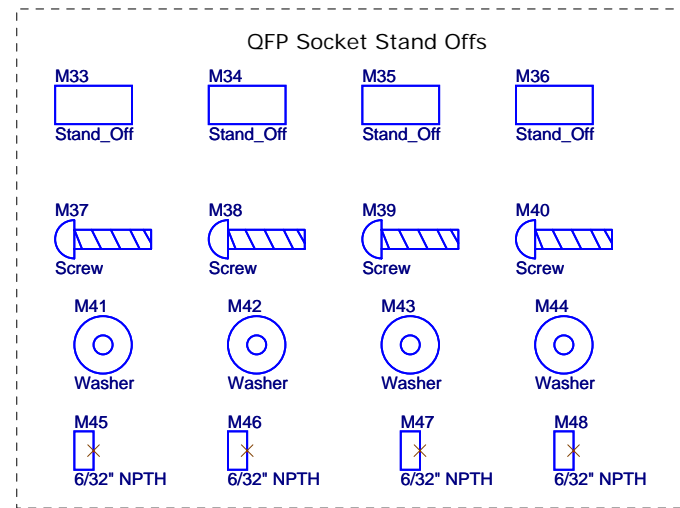
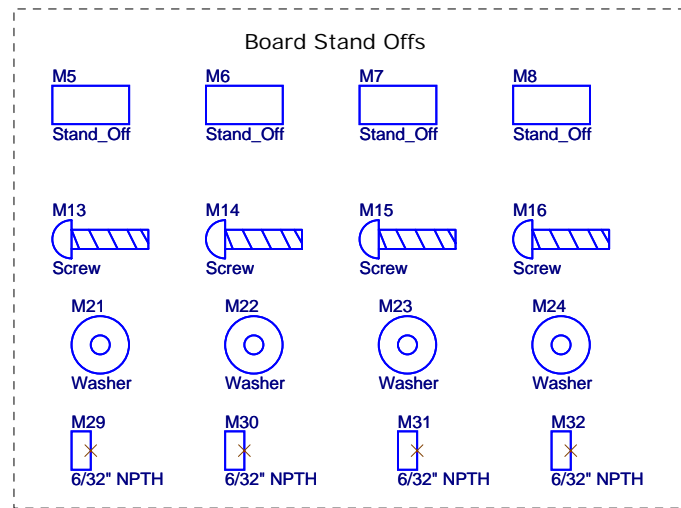
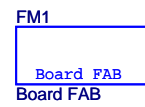
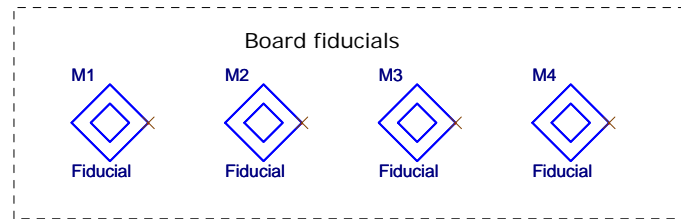


Notes:
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