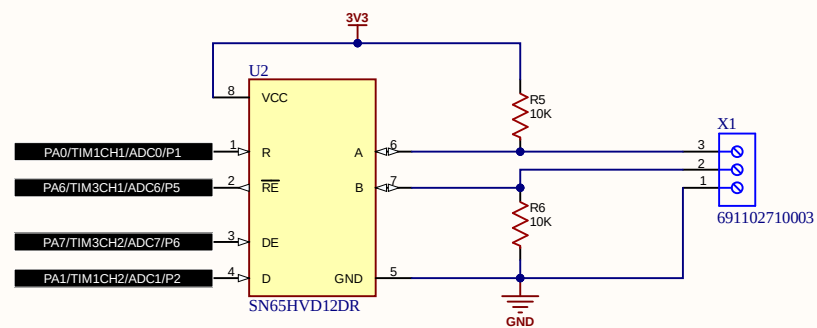




|                                            |                |              |                                                                                       |                                                                                                                        |
|--------------------------------------------|----------------|--------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| Title: <b>RS485</b>                        |                |              |  | <br>Where Hardware Meets Software |
| Part #: GDL-CMRS485-A                      |                |              |                                                                                       |                                                                                                                        |
| Revision: A                                | Date: 4/9/2025 | Sheet 1 of 5 |                                                                                       |                                                                                                                        |
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1

2

3

4

A

A

B

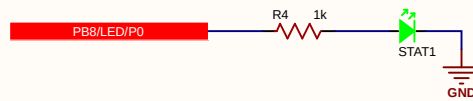
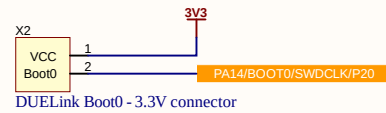
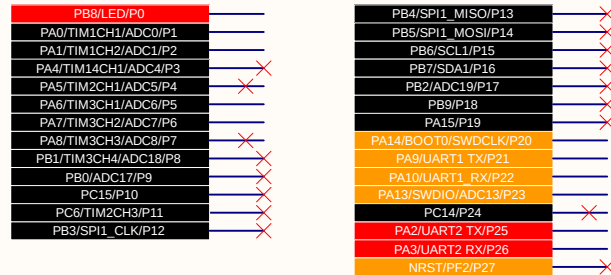
B

C

C

D

D



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil



Fiducial 40 Mil

Title: **MISC**Part #: **N/A**Revision: **A**Date: **4/9/2025**Sheet **2** of **5**

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1

2

3

4

Software Features:

ADC: P1, P2, P3, P4, P5, P6, P7, P8, P9, P17

Pulse feedback: Can be any pin but hardware need 100pF + 1Mohm

HW PWM: P1, P2, P3, P4, P5, P6, P7, P8, P11

- \* P1, P2: TIM1
- \* P3: TIM14
- \* P4, P11: TIM2
- \* P5,6,7,8: TIM3

SW PWM: Any pin

SW UART: Pins 1 RX, 2 TX, 3 DBG

Wakeup Pins: P1, P3

Interrupts on: P1, P2, P3, P4, P5, P6, P7, P12, ....

Output compare: P2 (PA1)

Input capture: TBD

Neopixel: Any pin (blocking mode)

IR reciever: P1

// PB8 - P0 -> LED  
// PA0 - P1 -> TIM1\_CH1 ADC0  
// PA1 - P2 -> TIM1\_CH2 ADC1  
// PA4 - P3 -> TIM14\_CH1 ADC4  
// PA5 - P4 -> TIM2\_CH1 ADC5  
// PA6 - P5 -> TIM3\_CH1 ADC6  
// PA7 - P6 -> TIM3\_CH2 ADC7  
// PA8 - P7 -> TIM3\_CH3 ADC8  
// PB1 - P8 -> TIM3\_CH4 ADC18  
// PB0 - P9 -> ADC17  
// PC15 - P10  
// PC6 - P11  
// PB3 - P12 -> SPI1\_CLK  
// PB4 - P13 -> SPI1\_MISO  
// PB5 - P14 -> SPI1\_MOSI  
// PB6 - P15 -> I2C1\_SCL  
// PB7 - P16 -> I2C1\_SDA

// PB2 - P17 -> ADC19  
// PB9 - P18  
// PA15 - P19  
// PA14 - P20 -> SWCLK BOOT0

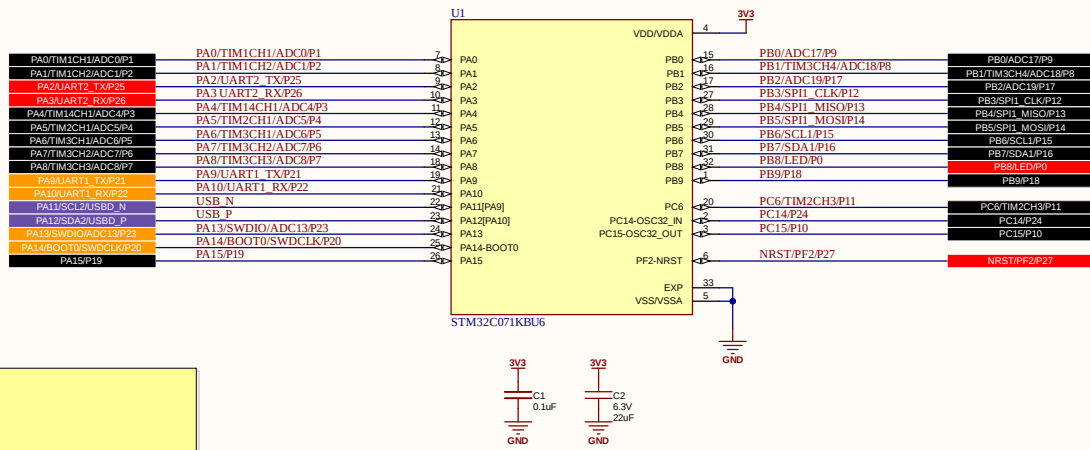
// PA9 - P21 -> UART1 TX - Can be used when no Upstream  
// PA10 - P22 -> UART1 - Can be used when no Upstream  
// PA13 - P23 -> SWDIO ADC13  
// PF2 - P24 -> NRST - Reserved for emergency

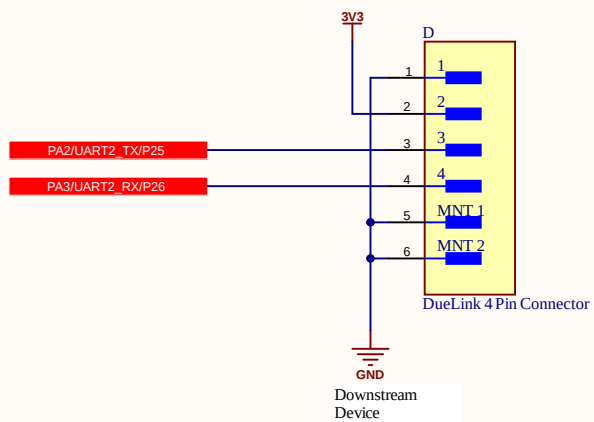
UART1 is available when not used in upstream

PA12 can be UART1\_CK

Sheet order priority:

- MCU.schDoc
- Downstream.schDoc
- Upstream.schDoc
- Misc.
- project\_name.schDoc





|                                  |                |              |                                                                                       |                                                                                       |
|----------------------------------|----------------|--------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Title: <i>DUELink Downstream</i> |                |              |  |  |
| Part #: Downstream JST Connector |                |              |                                                                                       |                                                                                       |
| Revision: v14                    | Date: 4/9/2025 | Sheet 4 of 4 | ©2025 GHI Electronics, LLC - Michigan, USA                                            |                                                                                       |

