
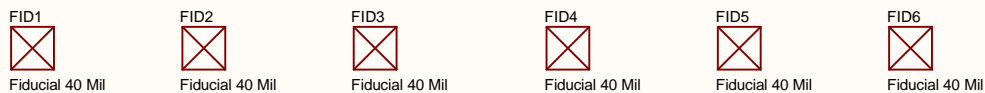
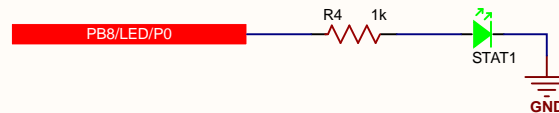
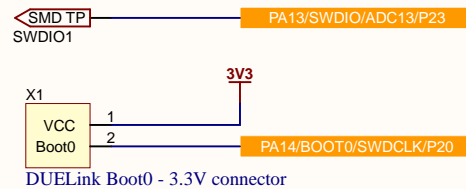
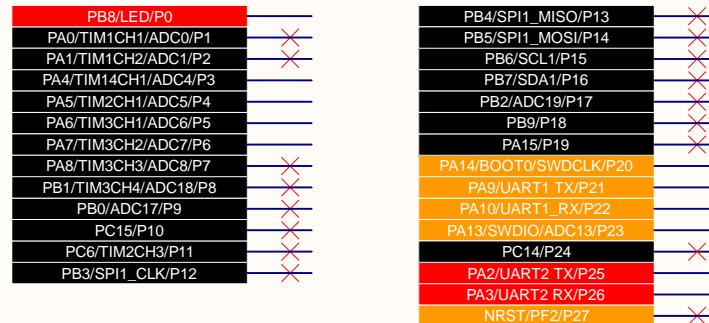


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|-----------------------------|-----------------|--------------|---|--|
| Title: <i>Relay P4</i> | | | 501 E Whitcomb Avenue Madison Heights, MI 48071 USA |  Where Hardware Meets Software |
| Part #: GDL-ACRELAYP4-A | | | | |
| Revision: A | Date: 2/20/2025 | Sheet 1 of 5 | | |
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| Title | | |
|-------|-------------------------|-----------|
| Size | Number | Revision |
| A | | |
| Date: | 2/20/2025 | Sheet of |
| File: | D:\Repos\..\Misc.SchDoc | Drawn By: |

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

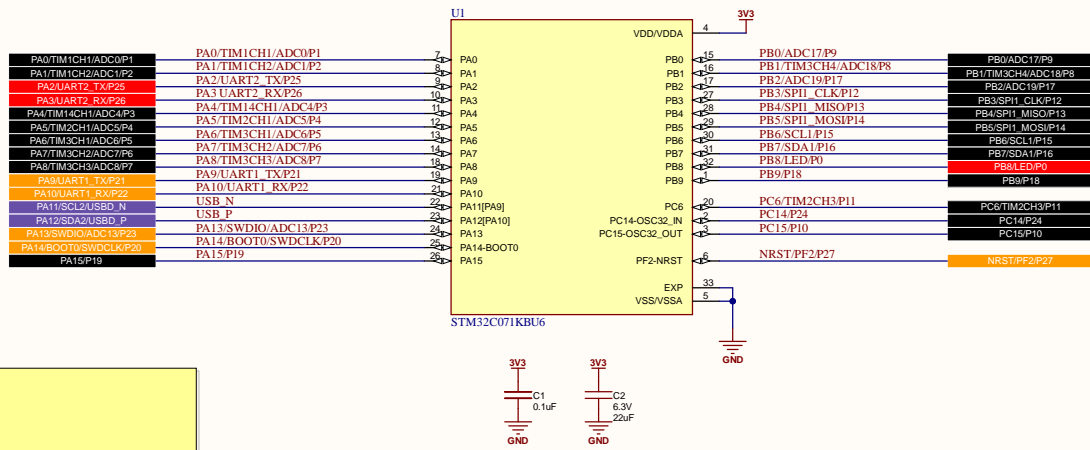
// PF2 - P24 -> NRST - Reserved for emergency

UART1 is available when not used in upstream


PA12 can be UART1_CK

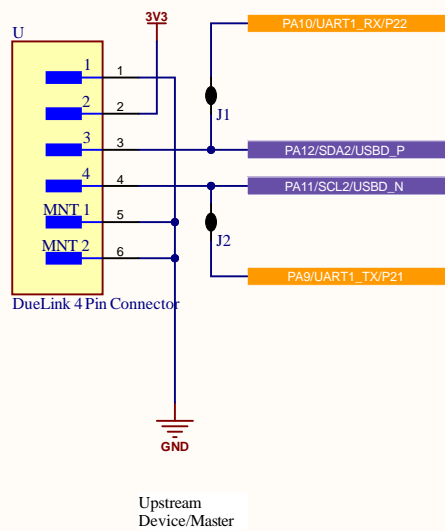
Sheet order priority:


- MCU.schDoc
- Downstream.schDoc
- Upstream.schDoc
- Misc.
- project_name.schDoc





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|----------------------------------|-----------------|--------------|---|--|
| Title: <i>DUELink Downstream</i> | | | 501 E Whitcomb Avenue Madison Heights, MI 48071 USA |  Where Hardware Meets Software |
| Part #: Downstream JST Connector | | | | |
| Revision: v14 | Date: 2/20/2025 | Sheet 4 of 5 | | |
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|--------------------------------|-----------------|--------------|---|--|
| Title: <i>DUELink Upstream</i> | | | 501 E Whitcomb Avenue Madison Heights, MI 48071 USA |  Where Hardware Meets Software |
| Part #: Upstream JST Connector | | | | |
| Revision: v14 | Date: 2/20/2025 | Sheet 5 of 5 | | |
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