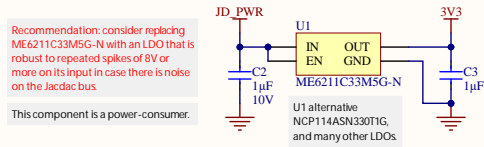
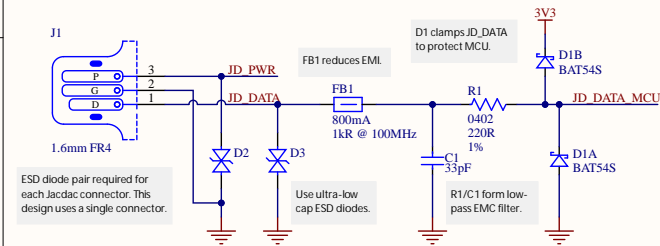


3V3 regulator



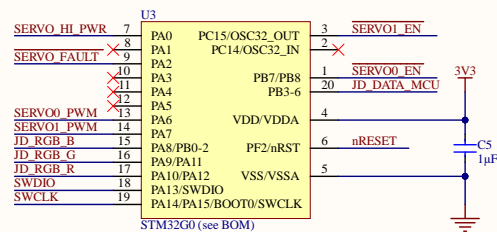
Jacdac connector



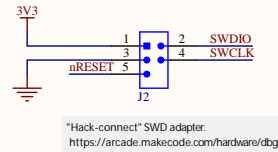
MCU

U3 critical pin mappings (TIM17 is sys clk):	PA9 TIM1_CH2 for RGB_G
	PA10 TIM1_CH3 for RGB_R
PA0 FT I/O for SERVO_HI_PWR	PA13 SWD data
PA2 FT I/O for SERVO_FAULT	PA14 SWD clock
PA6 TIM3_CH1/TIM16_CH1 for SERVO0	PB6 USART1_TX for JD_DATA_MCU
PA7 TIM3_CH2 for SERVO1	PB8 FT I/O for SERVO_EN
PA8 TIM1_CH1 for RGB_B	PC15 FT I/O for SERVO1_EN

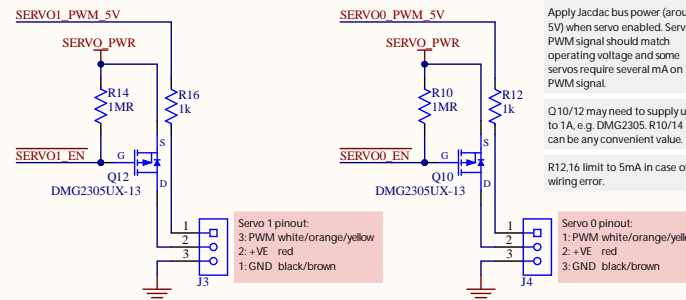
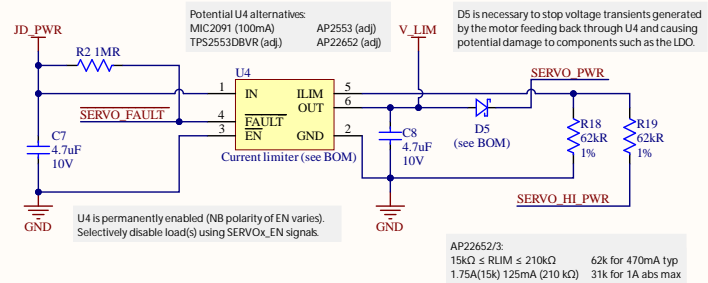
JD_DATA doesn't need WAKEUP pin because deepest sleep isn't used.



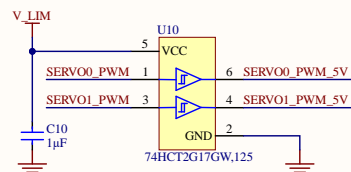
Programming/debug connector



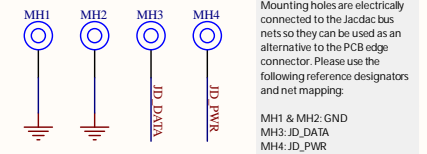
Servo



Ensure U10 Vih is low enough for 3.3V MCU signalling. 74HCT2G17 & 2G34 work (Vih 2V @ Vcc 5V) but HC, LVC or others may not. Inverting alternatives are 74HCT2G04, 2G14.

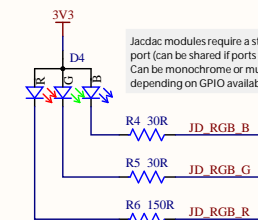


Mounting holes



This design uses PTH mounting holes with finished diameter of 3.1mm, annular copper ring of 4.4mm diameter & copper/component keepout of 7.0mm. The mounting holes must be on 10mm pitch. Mounting holes should have appropriate silkscreen marker, and MH1 should have a pin 1 marker in copper on the top side only.

LEDs



Tuoahan TZ-P4-1615RGBTCA1-0.55T RGB is footprint-compatible alternative for D4. If using alternative part recalculate R4-R6.

This reference design is a guideline. Please refer to the Jacdac docs online at <https://aka.ms/jacdac> for the definitive and most up-to-date information.

Silkscreen should include text to identify the module type and revision, and optionally a QR code.

This design uses a 'enclosure compatible' board shape.

Silkscreen & layout notes

Block name

Design notes

When this PDF is viewed with Adobe Reader, clicking on components shows part numbers and other details.

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