

General:

- Input voltage: 6-36v (Dual redundant regulators)
- Dimensions: 45x65x28mm (WxLxH)
- 20x20 & 25x25mm Mounting holes
- Onboard locking Micro-SD slot for logging
- Onboard Buzzer
- Onboard RGB LED for status
- FRAM for parameter & mission storage

Computer specs & interfaces:

- 4GB / 8 GB RAM
- 32 / 64 GB FLASH (Onboard EMMC)
- 4x Arm Cortex-A76 Cores @2.4GHz
- Built-in WiFi & Bluetooth
- 1x USB 2.0
- 2x USB 3.0
- 2x MIPI CSI-2
- Gigabit Ethernet
- µHDMI Output
- PCI-E for AI Accelerators, SDRs, storage etc
- 14 GPIOs

Sensors:

- Triple low-drift IMUs (3x Gyros, 3x Accelerometers)
- High precision barometer
- Dedicated 3 axis magnetometer
- Temperature sensor for drift compensation

Flight controller Interfaces:

- 6x UART
- 8x Motor outputs (DSHOT, PWM, OneShot)
- CAN Bus
- I2C
- Analog board + battery voltage & current sensing
- Safety switch input
- RC Input

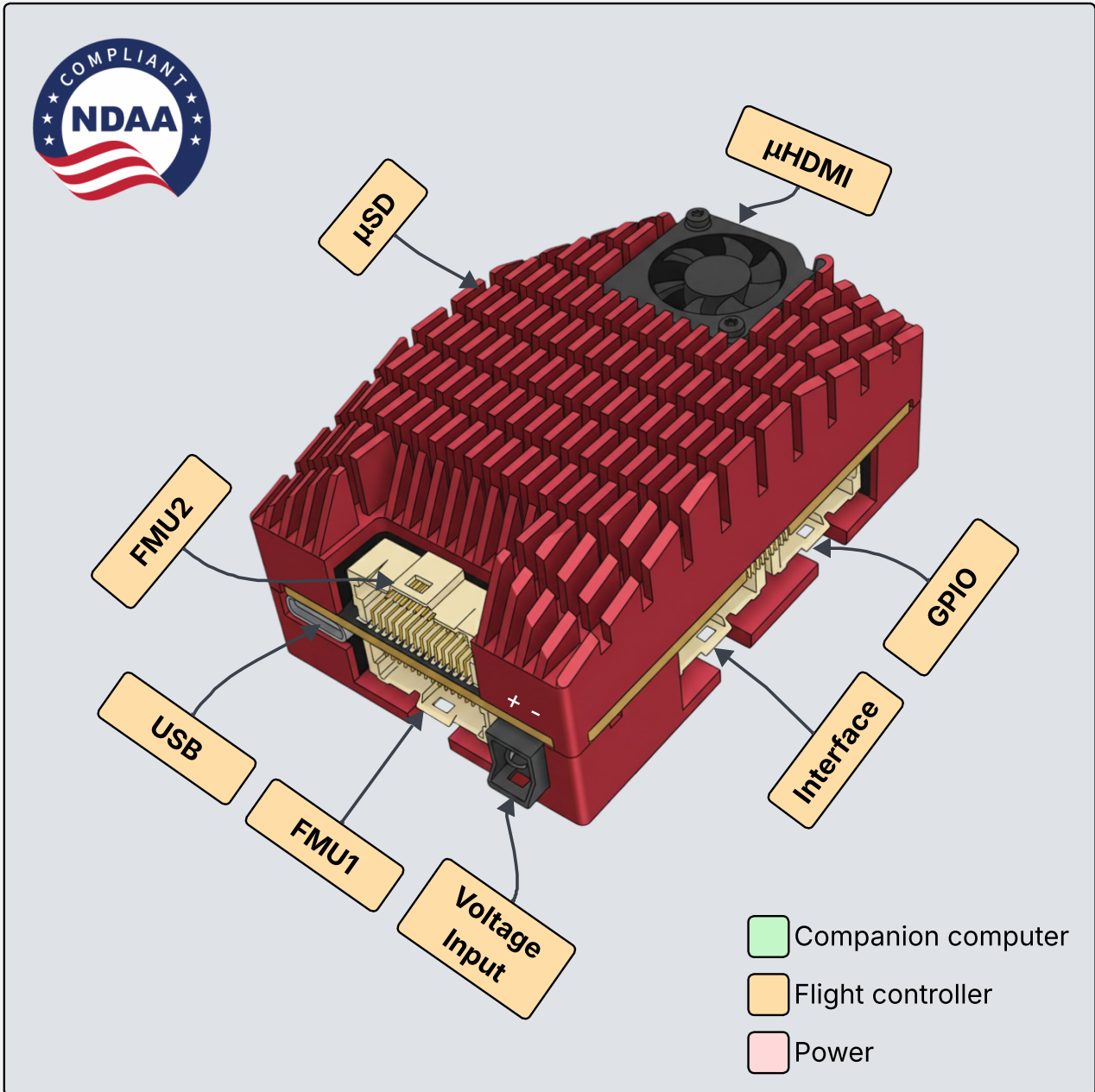
Supported flight stacks:



Ships by default

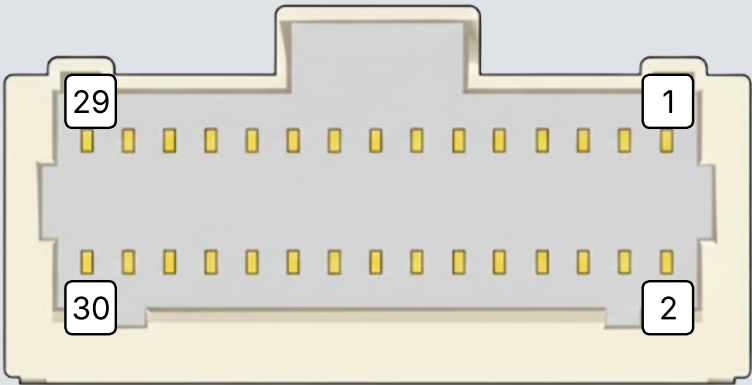


Optional



Flight Controller connectors

J1 - FMU1			
CH1	1	2	GND
CH2	3	4	GND
CH3	5	6	GND
CH4	7	8	TX6 / MOSI
CH5	9	10	RX6 / CS
CH6	11	12	CTS6 / SCK
CH7	13	14	RTS6 / MISO
CH8	15	16	FMU 3.3V
TX7	17	18	SAFETY SWITCH IN
RX7	19	20	GND
GND	21	22	GND
5V Main	23	24	BATT_VOLT
CAN_H	25	26	BATT_CURR
CAN_L	27	28	VDD_5V_BRICK
GND	29	30	VDD_5V_BRICK



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- Motor Outputs

UARTs

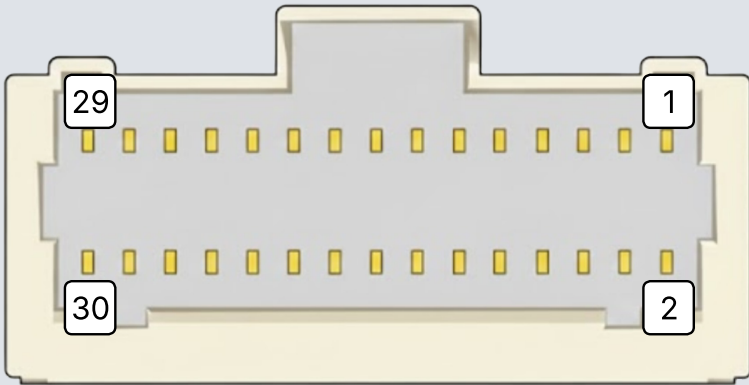
CAN Bus
- FMU 3.3V output

5V Main output

Analog inputs

*Optional power brick input for FMU Backup
These pins are only for sensing. **Maximum 3.3V input**

J2 - FMU2			
3.3V Receiver	1	2	5V Main
RC INPUT	3	4	TX3
RSSI IN	5	6	RX3
GND	7	8	CTS3
3.3V Receiver	9	10	RTS3
TX8	11	12	GND
RX8	13	14	5V Main
GND	15	16	TX2
5V Main	17	18	RX2
TX4	19	20	CTS2
RX4	21	22	RTS2
SCL1	23	24	GND
SDA1	25	26	VBUS
GND	27	28	FMU USB D-
GND	29	30	FMU USB D+



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- I2C

UARTs

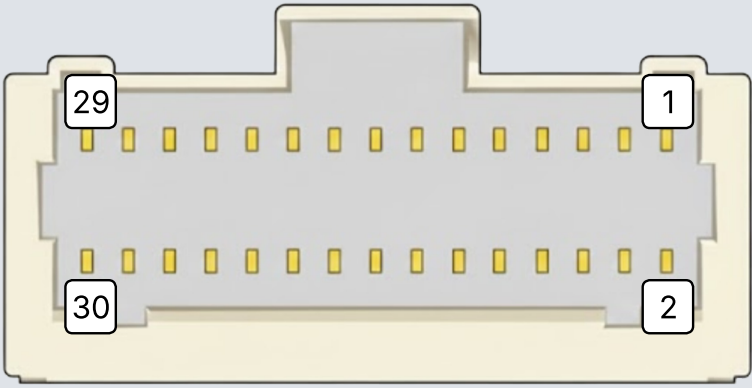
FMU USB
- FMU 3.3V output

5V Main output

Misc.

Companion Computer connectors

J3 - Interface			
USB OTG	1	2	5V Main
CM USB D-	3	4	GND
CM USB D+	5	6	ETH Status
GND	7	8	ETH Link
PCle_CLK_nREQ	9	10	ETH0_N / TX-
PCle_RST	11	12	ETH0_P / TX+
GND	13	14	ETH1_N / RX-
PCle_CLK_P	15	16	ETH1_P RX+
PCle_CLK_N	17	18	ETH2_N
GND	19	20	ETH2_P
PCle_RX_P	21	22	ETH3_N
PCle_RX_N	23	24	ETH3_P
VIN	25	26	GND
PCle_TX_P	27	28	VIN
PCle_TX_N	29	30	BOOT (Active low)



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- Ethernet

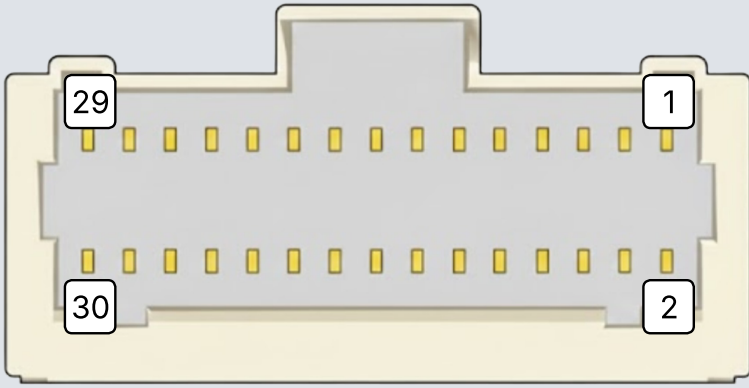
Battery voltage

USB
- PCle

5V Main output

Misc.

J4 - GPIO			
GND	1	2	GND
GPIO13	3	4	GPIO21
GPIO11	5	6	GPIO20
USB1 D-	7	8	GPIO16
USB1 D+	9	10	GPIO12
GND	11	12	GPIO7
USB3_0_RX_N	13	14	GPIO8
USB3_0_RX_P	15	16	GPIO25
USB3_0_DP	17	18	GPIO10
USB3_0_DM	19	20	GPIO23
USB3_0_TX_N	21	22	GPIO18
USB3_0_TX_P	23	24	CM_RX
GND	25	26	CM_TX
GPIO3	27	28	5V Secondary Output
GPIO2	29	30	3.3V Secondary output



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- GPIOs

UART

USB
- 5V Secondary output

3.3V Secondary output

Ground

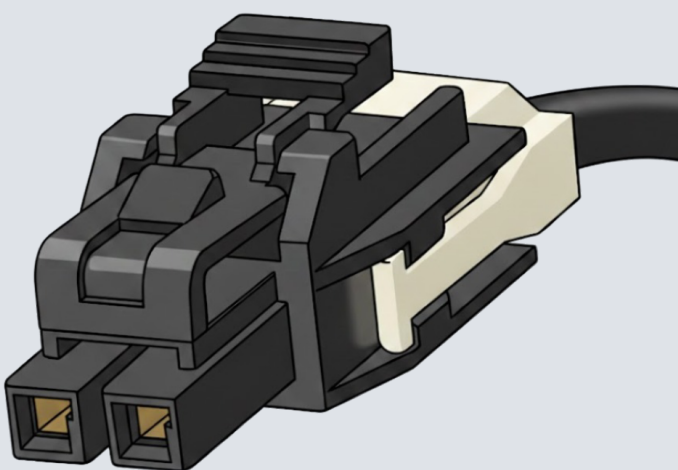
*CM UART Is connected to the FC (UART4 / Serial3 on FC)

*Low current output (up to 300mA)

J5 - Power input

1	VIN
2	GND

Input voltage: 6-36v (2-6s unfiltered)
Power draw: ~12W @ Full load, ~2.7W @ Idle



+ - Molex Nano-fit 45130-0201

Connectors

Designator	Type	Part number
J1,J2,J3,J4	Molex Pico-Clasp	501189-3010
J5	Molex Nano-Fit	45130-0201

UART Map

Hardware UART	Serial port ArduPilot	Serial port PX4	Recommended function
UART2	Serial1	/dev/ttyS0	Main telemetry
UART3	Serial2	/dev/ttyS1	GPS module
UART4	Serial3	/dev/ttyS2	Companion computer
UART6	Serial4	/dev/ttyS3	Secondary telemetry
UART7	Serial5	/dev/ttyS4	ESC Telemetry
UART8	Serial6	/dev/ttyS5	RC Receiver

→ UART4 is connected to the companion computer by default