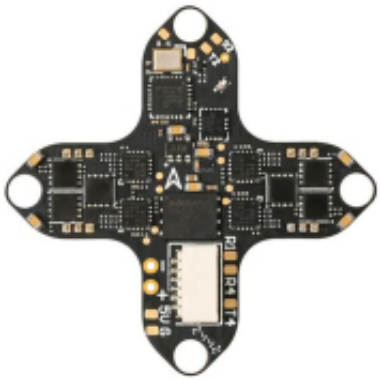
Dane aktualne na dzień: 15-11-2026 15:55

Link do produktu: https://www.nobshop.pl/aio-betafpv-matrix-1s-3in14in1-p-4816.html



AIO BetaFPV Matrix 1S (3IN1/4IN1)

Cena brutto	**199,99 zł**
Cena netto	**162,59 zł**
Dostępność	**Aktualnie niedostępny**
Czas wysyłki	**1 - 3 dni**
Producent	**BetaFPV**

Opis produktu

AIO BetaFPV Matrix 1S (3IN1/4IN1) (BMI270)

Od 5 stycznia 2026 r. Beta wysyła FC 3IN1 wyposażone w żyroskop BMI270. Przed wgraniem oprogramowania prosimy o sprawdzenie wersji żyroskopu w celu zapewnienia kompatybilności. Matrix 1S 3IN1 i 4IN1 wymagają innego oprogramowania – zawsze należy sprawdzić wersję przed wgraniem, aby uniknąć problemów z wydajnością.

The Matrix 1S 3IN1 HD Brushless Flight Controller is purpose-built for 1S HD whoops, featuring the iconic "cross" design. Engineered exclusively for digital FPV, it eliminates analog OSD, integrating a flight controller, ESC, and ELRS 2.4G RX into one lightweight, streamlined unit for effortless setup and maintenance. Equipped with newly developed BEC and ESC, it’s finely tuned to meet the demands of 1S HD whoops, delivering superior digital image transmission and setting a new standard in 1S HD flight controllers.

Note: Stay tuned for our upcoming 4IN1 version with the analog OSD integrated.

Attention

- Flight controllers are covered for manufacturer defects. Issues arising from user errors, physical crash damage, damage during installation or dismantling, modifications, power surges, electrical fires, or water exposure are not covered.

Bullet Points

- Optimized for 1S Whoops: Designed to enhance performance with the DJI O4 digital transmission system.
- Three-in-One Integration: Combines flight controller, ESC, and ELRS 2.4G RX into a compact unit, focusing exclusively on high-quality digital FPV by eliminating analog OSD.
- Stable HD Video Transmission: Features a newly developed BEC to ensure consistent power delivery for seamless HD performance.
- Enhanced Overcurrent Capacity: Supports 12A continuous current and 18A peak ESC, providing robust performance for demanding flights.
- Reliable Precision: Includes an independent 3.3V LDO design to deliver stable, interference-free power directly to the IMU for accurate control.

- Effortless Setup: Equipped with convenient motor plugs and a SH1.0-6Pin HD digital port for a solder-free, hassle-free installation and maintenance experience.

Specifications

FC

- MCU: STM32G473CEU6 (168MHz)
- Gyro: ICM42688P
- Blackbox memory: 16MB
- Sensor: Voltage & Current
- BEC: 5V/3A
- UART: UART 1 (RX Only/SBUS), UART 2 (Free), UART 3 (For RX), UART 4 (Free/HD MSP)
- ESC: 12A continuous
- RX: Serial ELRS 2.4GHz (V3.4.3)
- FC firmware: Betaflight_4.5.1_BETAFPVG473
- USB port: SH1.0-4Pin
- HD Digital VTX Port: SH1.0-6Pin
- Motor plug: JST1.25-3Pin
- Battery connector: BT2.0
- Mounting size: 25.5mm x 25.5mm
- Weight: 3.2±0.1g (battery connector excluded), 4.2±0.1g (battery connector included)

ESC

- Power input: 1S Only
- Current: 12A continuous, 18A peak
- ESC firmware: A_X_5_96_v0.19.2.hex for BB51 Bluejay firmware
- Digital signal protocol: DSHOT300, DSHOT600

Diagram

Diagram of Matrix 1S 3IN1 HD Brushless Flight Controller:

New BEC for Stable HD Image Transmission

Digital image transmission requires higher current, and 1S whoops often fly at voltages as low as 3.3V, placing significant demands on the BEC. To meet these challenges, an advanced BEC has been developed, capable of delivering over 3A of current at ultra-low voltages down to 2.85V. This ensures stable digital image transmission even in critical situations. While flying to such low voltages isn't recommended, this innovation provides pilots with a greater chance of safely recovering from unexpected situations.

Enhanced Continuous 12A ESC

HD image transmission adds weight to 1S whoops, demanding stronger power and higher ESC overcurrent capacity. Our engineers exceeded expectations, delivering a robust ESC with 12A continuous output and 18A peak capacity on the iconic "cross" flight controller. This ensures optimal thrust-to-weight ratio, reliable performance, and worry-free high-definition flights.

Individual Power Supply for IMU

Unlike traditional shared power supply designs, the Matrix 1S 3IN1 HD FC features an independent 3.3V LDO power supply exclusively for the IMU. This innovation eliminates interference, creating a cleaner and more stable environment that enhances flight precision, improves sensitivity, and reduces the risk of performance issues—ensuring unmatched stability during every flight.

Effortless Setup and Maintenance

The Matrix 1S 3IN1 HD FC is designed to maximize your flight time by minimizing setup hassle. Equipped with convenient motor plugs and a SH1.0-6Pin HD digital port, it allows for a completely solder-free installation and maintenance process. Now, you can focus more on enjoying high-definition flight experiences instead of dealing with complex tools.

Serial ELRS 2.4G RX

Serial ELRS 2.4G RX uses the Crossfire serial protocol (CRSF protocol) to communicate between the receiver and the flight controller board. So the Serial ELRS 2.4G RX is available to support upgrading to ELRS V3.0 with no need to flash Betaflight flight controller firmware. Enter binding status by power on/off three times.

- Plugin and unplug the flight controller three times;
- Make sure the RX LED is doing a quick double blink, which indicates the receiver is in bind mode;
- Make sure the RF TX module or radio transmitter enters binding status, which sends out a binding pulse;
- If the receiver has a solid light, it's bound.

The Serial ELRS 2.4G RX can be updated via Wi-Fi or Betaflight serial passthrough. Here is the way to update the Serial ELRS 2.4G RX firmware through passthrough.

- Plug in your FC to your computer, connect to ExpressLRS Configurator instead of Betaflight Configurator;
- Choose target "BETAFPV 2.4GHz AIO RX";
- Flash using the BetaflightPassthrough option in ExpressLRS Configurator.

How to flash firmware via Wi-Fi here.

Betaflight Firmware and CLI

Betaflight official developers recommend using version 42688 of the gyroscope, and many issues with ICM42688 have been fixed in version 4.5.0. Please learn more from version 4.5.1.

- FC firmware: Betaflight_4.5.1_BETAFPVG473, download the **firmware and CLI dump file**
- Reference link: https://github.com/betaflight/betaflight/releases/tag/4.5.1

Bluejay ESC Firmware

With BB51 ESC solution, Matrix 1S 3IN1 HD Brushless Flight Controller is based on A_X_5_96_v0.19.2.hex for BB51 Bluejay firmware, it supports DSHOT300, DSHOT600, and even RPM filtering in Betaflight, offers 24KHz, 48KHz, and 96KHz fixed PWM frequency for options, and custom start-up melodies.

DO NOT flash the firmware with a shorter interval, otherwise, there will be a certain chance of stalling and burning the flight controller.

- ESC-Configurator: https://preview.esc-configurator.com/
- Download BLHeliSuite16714903
- Download the Bluejay ESC firmware, please choose A_X_5_96_v0.19.2.hex.

How to Use Serial Ports, Intergrated RX and VTX

UART3 is connected to the built-in serial ELRS RX. To release UART3, please remove the resistor. Additionally, this FC reserves 2 complete full-featured serial ports that can be used for external serial receivers, GPS, HD VTX, or other serial devices. You can refer to the picture below.

Recommended Parts

- Drones: Meteor65 Pro O4, Meteor75 Pro O4
- Frames: Meteor65 Pro Frame, Meteor75 Pro Frame
- Motors: 0802SE Motor, 1102 Motor
- Propellers: GF 35mm 3-Blade, GF 45mm 3-Blade

Package

- 1 * Matrix 1S Brushless Flight Controller (3IN1 HD)
- 1 * Type-C to SH1.0 Adapter
- 1 * SH1.0-4Pin Adapter Cable
- 1 * SH1.0-6Pin Adapter Cable
- 4 * M1.2*4 Self-tapping Screws

- 4 * M1.4*5 Self-tapping Screws
- 4 * Shock Absorbing Balls

Produkt posiada dodatkowe opcje:

Wersja: 3IN1 , 4IN1