Falkr X1

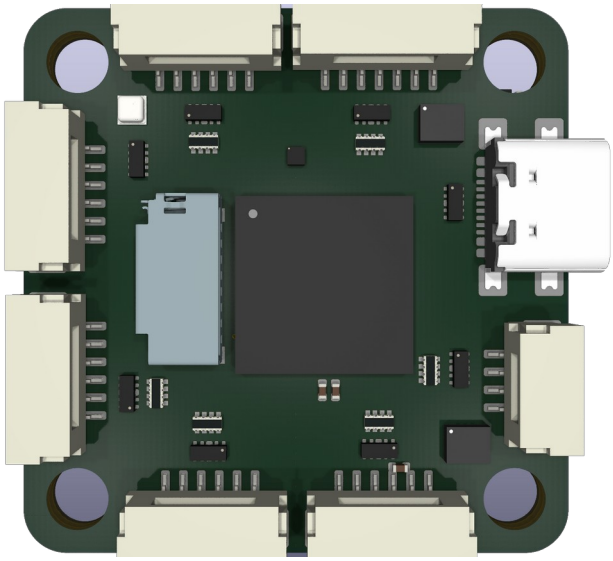
Flight Controller

The Falkr X1 is a Swedish designed and produced flight or vehicle controller powered by the exceptionally powerful *NXP i.MX RT1064 M7* microcontroller running at a blazing speed of 600MHz. Built for maximum reliability and redundancy with tight integration into the Drone Code foundation ecosystem with PX4 and MAVLINK.

- Ultra fast Cortex-M7 MCU
- Double redundant IMU
- Up to 32GB black box/logging
- Tight integration with an companion computer

Applications

- FPV Multicopters
- UAVs, UGVs and USV
- Robotics



Two BEC circuitry, one at 12V @ 1A and one at 5V @ 2A allows for powering external peripherals. Redundantly power the board by two separate sources, an external 5V regulator and battery voltage, and smart power monitoring ensures continuous run time.

Utilize the latest technologies on the market including CAN-FD.

- Redundant power system
- Internal or External BEC
- Smart power monitoring
- 4 Telemetry ports
- Vibration secure latched connectors

Customer specific customization available on request.

Innovative autonomous drones and cyberphysical systems

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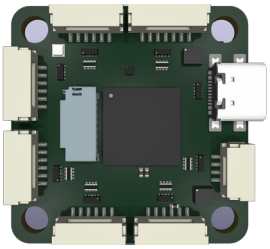

Platform Specifications

System

MCU: NXP i.MX RT1064
Memory: 4MB Flash 1MB SRAM
IMUs: 2 TDK ICM-45686
Barometer: Bosch BMP581
Compass: ST IIS2MDC
PWM channels: 8 PWM/DSHOT Channels
Power: 3 – 12S VBAT and 5V input
Telemetry: 4 UARTs for telemetry and control
Logging/Blackbox: Up to 32GB SD-card

Interface

Regulated input: 4.2 – 5.5V
Battery input: 16-54V
Connectors: JST GH-series
Interfaces: UART, SPI, I^2C, CAN, GPIO
Mounting: 30.5mm x 30.5mm M4 /M3 with damper

Variant	Length	Width	Height	Weight
Falkr X1-A	39mm	39mm	10mm	~12g

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