

Edge Flight Controller HCR-504

Highlights

- Increase your Indigenous Content (IC)
- Local sales, support and repairs
- Low cost yet with global standards
- Built on 16+ years of experience in flight controller technology
- Supply Chain Security: We focus on genuine sources
- Rigorous Testing: Extensive pre-delivery validation

Features

- Effortless configuration, plug and play
- Superior Form Factor and Connectivity
- Unified connector offering exceptional flexibility
- Seamless integration with most vehicle types
- Digital power connectors ensure efficient power management
- CAN connectors with precise digital power voltage readings
- Extremely low ripple noise for enhanced performance
- Ensures stable electrical environments for smooth vehicle control



Flight Controller: HCR-504B



Flight Controller SoM: HCR-536

MADE IN INDIA



Increase
Indigenous
Content (IC)

Local service support

“Introducing HCR-504 Edge Flight Controller (EFC) includes EFC SoM, carrier board, heat sink, and cable set – all you need to experience ultra-stable vehicle control”

Comprehensive Ports and Interfaces

- 2 high-speed FD CAN ports (8 Mbits)
- 7 serial ports (2 supporting hardware flow control)
- Optional Ethernet port available via custom carrier boards
- 9 dedicated GPIO pins
- 8 dedicated analog inputs
- 4 I2C buses (2 for external use, 2 for Flex Board)
- 5 SPI ports (4 for Flex Board, 1 for external use)
- SD card socket for data logging



PROVEN EXPERTISE: Built on 16+ years of experience in flight controller technology with Industry-Leading Performance and Versatility

**Let's
Connect**

📍 **HC Robotics Pvt., Ltd.**
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Discover the pinnacle of drone technology with our Edge Flight Controller today!

- Simplified Calibration: No need for end-user calibration – extreme accuracy out-of-the-box
- Extensive PWM and Servo Connectivity: Access up to 16 dedicated PWM channels. Supports 8 dedicated PWM servos/ESC with HCR 504B, surpassing standard options
- World-Class Power Regulation
- Intelligent component selection ensures reliability
- Vibration and temperature tested for ultimate durability
- Built-in buzzer for alerts and notifications
- Temperature stabilized oscillator (TXCO) for precise timing
- Built-in FRAM with 2 Kbytes or 32,000 bits for dedicated storage parameters
- Sensors for added reliability and safety


WE ALSO OFFER CUSTOMIZED FLIGHT CONTROLLER AND CUSTOMIZED CARRIER BOARD






Specifications:

Model Number	HCR-504B
Main Processor	H7 ARM® Cortex®-M7 480Mhz
RAM	1MB
FRAM	32kbytes for dedicated storage parameters
Flash	2MB
External Memory	SD Card Support
IMU	HCR-505 "A"; Integrated with dual IMUs for redundancy and precision
Sensors	Dual 3-axis Accelerometer; Dual 3-axis Gyroscope Dual Pressure Sensor; Dual 3-axis Magnetometer *Customizable as per requirement
Carrier Board	HCR-536 Required
Connectors	JST-GH; USB-C
Interface and Protocol	8x PWM outputs; 4x GPIO; 2x FD CAN (8Mb) 2x Serial ports with HW flow control; 2x Serial ports 2x Power Input; 1x SWD (TC2030 Connector) Futaba S.BUS compatible input FRSky Telemetry port output; SIYI compatible
LED	Status, mode, and power indicators
Power	Input: 5V DC to 5.5V DC; Output: 3.3V DC
Weight	88g (FC with carrier board and enclosure)
Dimensions	80x55x20 mm - FC
Operating Temperature	-10°C to 55°C
Enclosure	Aluminum case
Supported firmware	Ardupilot, PX4
Typical Vehicles	Multirotor; Rover; Fixed wing; VTOL; Boats and general robots

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