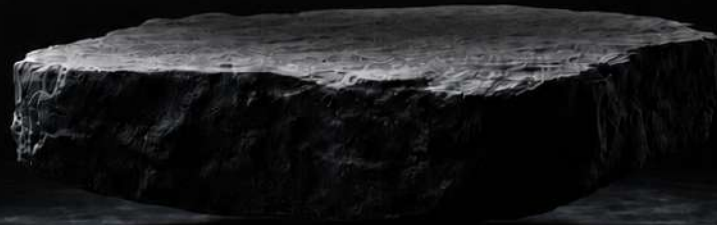
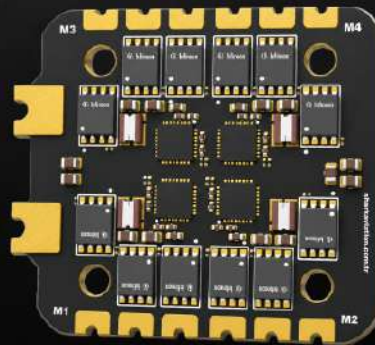


SHARK

Shark ESC 80

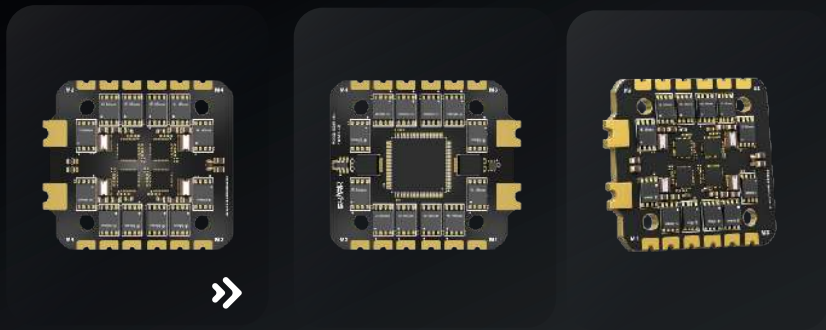
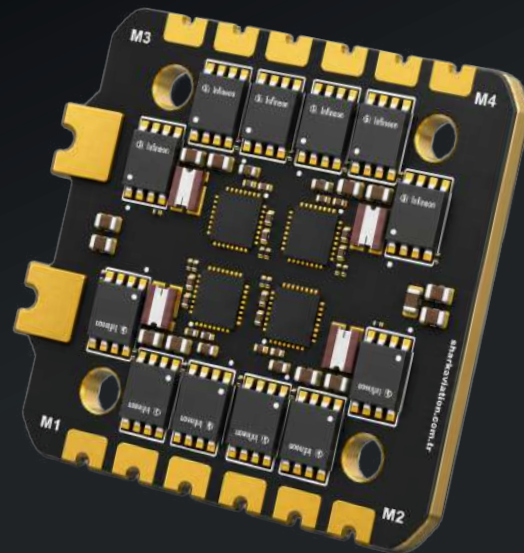


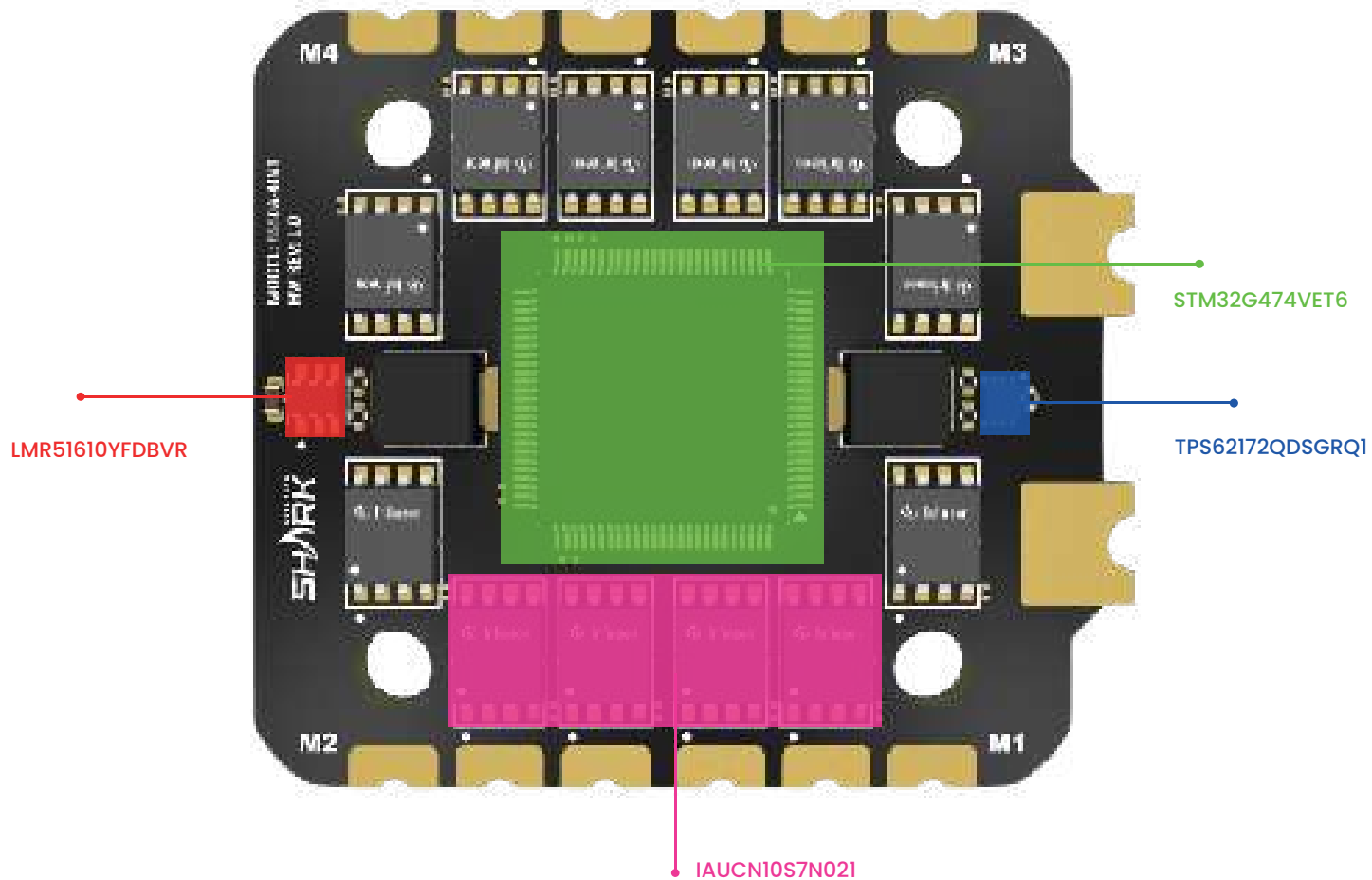
Power Knows No Limits with the **Shark ESC 80**

Built for high performance, engineered for total control.

Developed for professional UAV systems, Shark ESC 80 delivers 80 A of continuous current on each of its four motor channels. With independent motor current sensing, a 170 MHz STM32G4 controller, and a 100 V MOSFET power stage, it provides fast, precise, and reliable motor control. Smart gate drive protection and dedicated power rails ensure stable performance in demanding 4–8S UAV systems.

A powerful and compact solution for professional UAVs and advanced industrial applications.





4× Independent Motor Current Sensing

Each motor channel is monitored independently through a high-precision Kelvin shunt sensor. This enables accurate tracking of each motor's actual load, allowing overcurrent and abnormal load conditions to be detected more precisely.

170 MHz High-Performance Motor Control

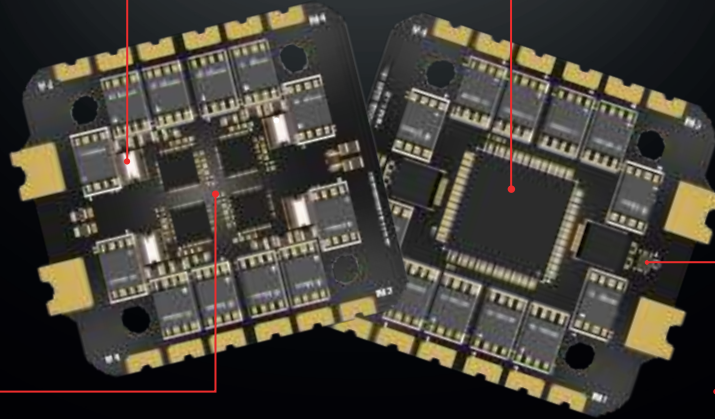
All four motors are managed by a powerful 32-bit controller featuring advanced motor-control peripherals. High-speed PWM, synchronized ADC sampling, and independent current monitoring enable precise and responsive real-time control of all four motors.

Smart Gate Drive & Hardware Protection

Each motor uses a dedicated three-phase gate driver. Adjustable gate drive, VDS-based overcurrent detection, and hardware fault outputs ensure safer, more controlled MOSFET operation with reduced switching losses.

Clean & Efficient 3.3V Logic Power

The controller and sensitive analog circuits are powered by a dedicated, high-efficiency 3.3V regulator isolated from the power stage. This design reduces heat generation and provides cleaner power for more stable control electronics.



Technical Specifications

Input Voltage	4-8S LiPo
Continuous Current	80 A × 4
Peak Current	120A
MCU	STM32G474VET6
Gate Driver	4× DRV8350SRTVT
MOSFET	24× IAUCN10S7N021ATMA1, 100 V
Current Sensing	4× independent motor current sensing
Shunt	4× 0.2 mΩ, 4-terminal Kelvin
Current Amplifier	STM32G474 internal OPAMP/PGA
Main Buck	LMR51610YFDBVR, 15 V
3.3 V Supply	3× PWM / motor, 12× HRTIM PWM total
PWM Architecture	24× IAUCN10S7N021ATMA1, 100 V
Protection	Per-motor VDS-OCP + nFAULT/HRTIM fault
Size	50 × 44 mm
Mounting Pattern	30.5 × 30.5 mm
Firmware	Custom STM32G4 firmware / AM32



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