ELLIPTICSYSTEMS

ES FLIGHT CONTROLLER



PROCESSOR	480 MHz Cortex-M7 core, floating point unit with double-precision data-processing
FLASH MEMORY	2 MB
RAM	1 MB
IMUs	3 x TDK ICM-42688-P
HEATER	Integrated 1W for extreme (cold) weather operation
POWER	5.5V - 54V input Ultra-Low Noise LDOs Over-Voltage Protection: 60V Reverse Voltage protection
CLOCK	Temperature Compensated Crystal Oscillator
BAROMETER	2 x DPS368 (Rugged)
MAGNETOMETER	IST8310 – 3D Magnetic Sensor
CAN	Dual CAN-FD drivers
PWM	13 x PWM channels with DSHOT capability
UARTS	5 x UARTs, 2x with HW flow control
MIL-SPEC CONNECTOR	 Power (I2C in the middle) UART: 1, 2, 3, 4, 5 (With 5V and GND) CAN-FD connector 1 (With 5V and GND) CAN-FD connector 2 (With 5V and GND) PWM Channel: 1 to 13 (With GND) USB (With external USB-C breakout) Integrated Buzzer, Switch and Safety switch
LEDs	1 Red LED for Power, 2 LEDs for status (Green and Blue)
MICRO-SD SLOT	Locking, Vibration Resistant
WEIGHT	10 g
DIMENSIONS	40 x 40 x 8 mm

POWER CONSUMPTION	Less than 1A without heater
TEMPERATURE RANGE	-40°C to +85°C (Operational) -65 °C to +150°C (Storage)
ENVIRONMENTAL	MIL-STD-810H
EMI/EMC	MIL-STD-461G
WATER RESISTANCE	Fully-Potted IP67 or conformally coated (nano-spec)
MOUNTING	Vibration isolated M3, 30.5 × 30.5 mm
SOFTWARE SUPPORT	Ardupilot and PX4