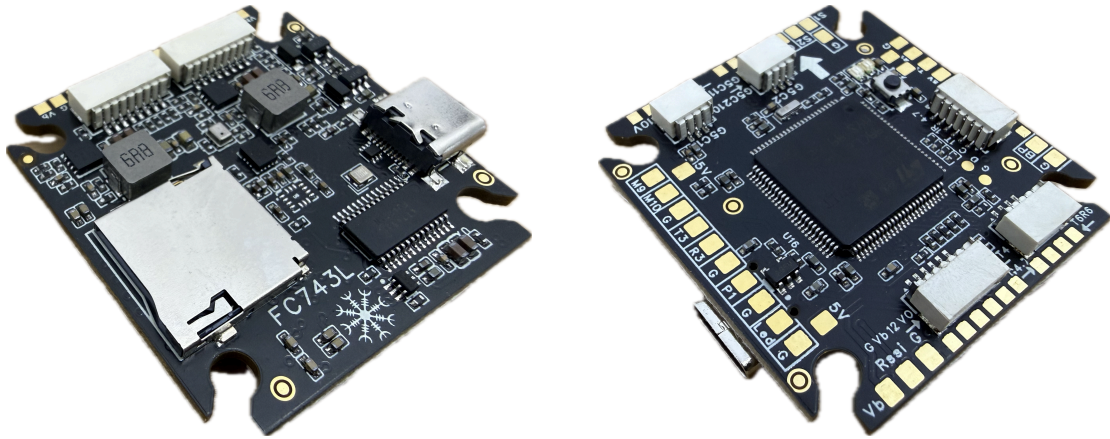


Flight Controller FC743L

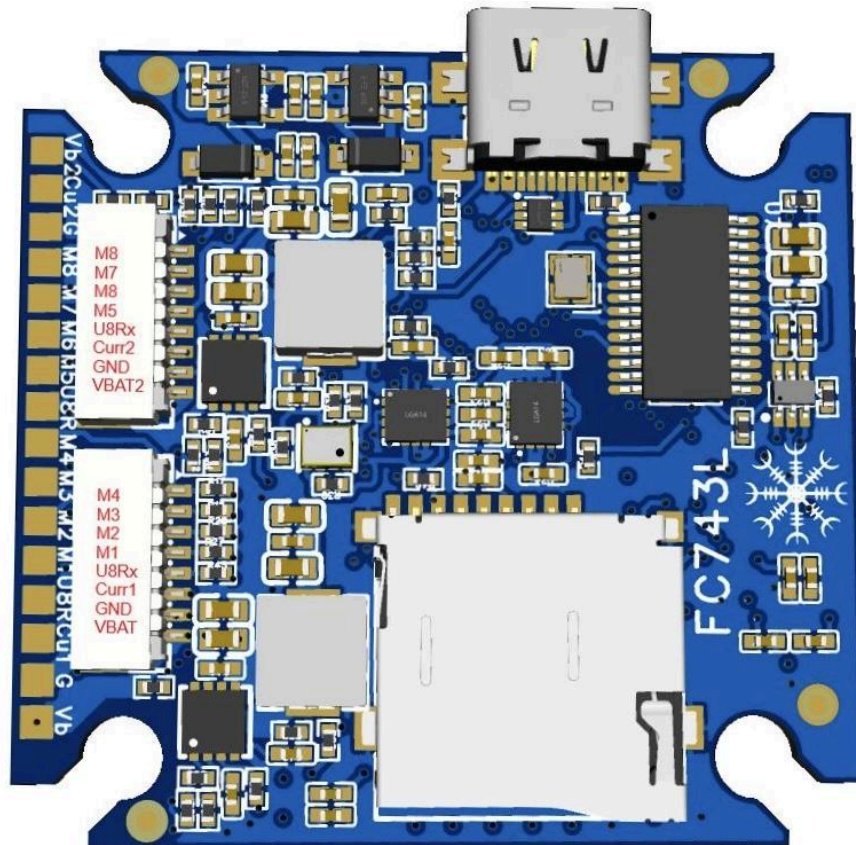


| | |
|-------------------------------|--|
| CPU | STM32 F743VIT6 |
| Gyro | ICM42688 |
| Baro | SPA06-003 |
| OSD | + |
| BlackBox | MicroSD |
| Motor output | 2x 4 connectors +2 solder pads |
| LED light strip | + |
| Buzzer output | + |
| Receiver Protocol | ELRS/CRSF/S.BUS/Frsky/Futaba/flysky/TBS Crossfire/DSMX |
| Universal serial port | 5 UART + 1 UART(RTS/CTS) + 1UART (Telemetry) |
| Output power | 12V/3A(peak) 5V/3A (peak) 10V (Cams) |
| USB | Type-C |
| Camera switching with PINIO | + |
| PINIO | 2 |
| Sbus and VTX jumper switching | - |
| Firmware | MatekH743 (BetaFlight, ArduPilot, INAV) |
| Weight, Size | 10g, 41x41 mm |
| Mounting Holes | 30.5x30.5mm, M3 |

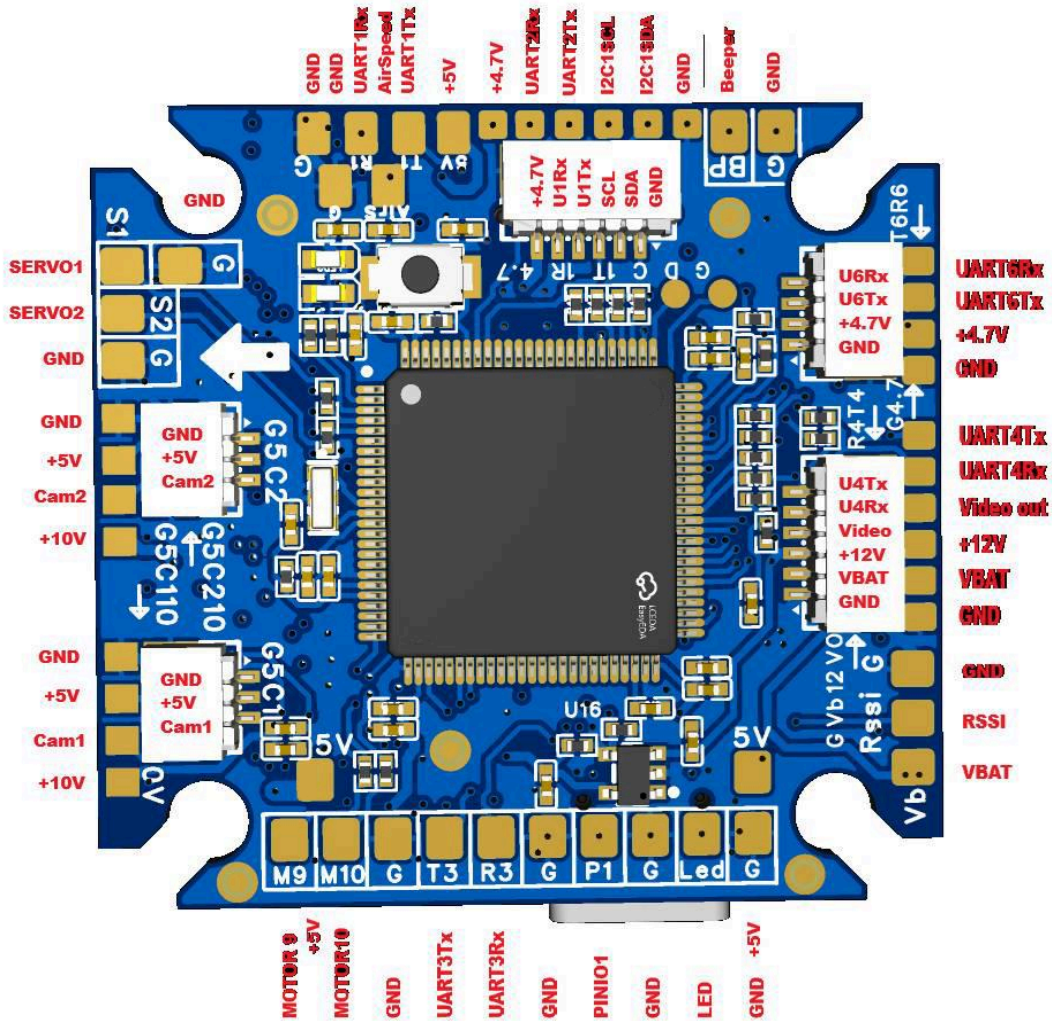
Included:

- 1x 3-pin Camera cable 100mm
- 1x 4-pin ELRS cable 100mm
- 1x 6-pin VTx cable 100mm
- 1x 8-pin Stack cable 55mm
- 4x rubber dampers

Connectors



| | |
|--|--|
| USB TypeC | |
| MicroSD slot | |
| <u>Connector (Main) #1</u> | |
| M4 | Motor 4 |
| M3 | Motor 3 |
| M2 | Motor 2 |
| M1 | Motor 1 |
| U8Rx | UART8 RX |
| Curr1 | Current monitor |
| GND | Ground |
| VBAT | Main battery Power + Sensor, 4S-6S |
| <u>Connector (Secondary) #2</u> | |
| M8 | Motor 8 |
| M7 | Motor 7 |
| M6 | Motor 6 |
| M5 | Motor 5 |
| U8Rx | UART8 RX |
| Curr2 | Secondary Current sensor |
| GND | Ground |
| VBAT2 | (AUX) Secondary battery voltage sensor |



| | | | |
|----------------------------|---------------|----------------------------|--------------------|
| <u>Connector #3</u> | | <u>Connector #6</u> | |
| Cam1 | Video input 1 | U6Rx | UART 6 Rx |
| +5V | Power | U6Tx | UART 6 Tx |
| GND | Ground | +4.7V | Radio module power |
| <u>Connector #4</u> | | GND | Ground |
| Cam2 | Video input 2 | <u>Connector #7</u> | |
| +5V | Power | | |
| GND | Ground | | |
| <u>Connector #5</u> | | | |
| +4.7V | Power | | |
| U1Rx | UART 1 Rx | U4Rx | UART 4 Rx |
| U1Tx | UART 1 Tx | Video | Video OUT |
| SCL | SCL | +12V* | Vtx Power 12V |
| SDA | SDA | VBAT* | Vtx Power 4S-6S |
| GND | Ground | GND | Ground |

*Different Vtx modules use +12V or direct battery supply.

ArduPilot Setup

After firmware installation, in Mission Planner make:

Mission Planner → Config/Tuning → Full Parameter List (or Tree)

BARO_EXT_BUS = -1 (external barometer disabled)
BARO_PROBE_EXT = 2048 (bitmask)

After any changes to Baro:

1. Write Params
2. Reboot FC
3. Calibrate Accelerometer

Mission Planner → Setup → Mandatory Hardware → Accelerometer Calibration