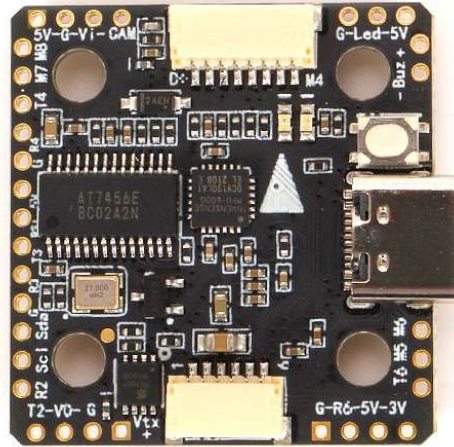# KΛKUTE **H7 Mini**

Flight Controller

Description:

The Holybro Kakute H7 Mini is a Flight Controller full of features including onboard VTX ON/OFF Pit Switch with battery voltage, HD System/VTX & 4in1 ESC plugs, barometer, OSD, 6x UARTs, easy soldering layout and much more.

The Kakute H7 Mini builds upon the best features of its F7 predecessor and further improves on hardware components and layout. HD ready, it has an easy plug to power HD system like Caddx Vista while supporting analog system.

It features an onboard "VTX ON/OFF Pit Switch" that allows you to completely power off the video transmitter using a switch on your RC transmitter. Great if you are working on your drone, waiting for the GPS to get a fix, getting ready for a race while preventing it from overheating or interfering with others flying.

It has 6x dedicated UART ports with built-in inversion for peripherals, 4in1 ESC plug, and x8 compatible with M5-M8 Signal Pads, allowing easy support for x8 Octocopter configuration.

The integrated BetaFlight OSD makes it easy to display important information on your FPV display like battery voltage, flight time, warnings, RSSI, smart audio features and more. It is also ready for autonomous flight with the on-board barometer. There are LED & buzzer pad, I2C pad (SDA & SCL) for external GPS/Magnetometers.

Specification:

MCU - STM32H743 32-bit processor running at 480 MHz
IMU - MPU6000
Barometer - BMP280
OSD - AT7456E
Onboard Flash: 128Mbits

VTX ON/OFF Pit Switch – Switch can be enable using USER1 in Betaflight Mode tab.
Warning: Do not enable this pit switch if you are using DJI FPV Remote Controller

6x UARTs (1,2,3,4,6,7)
9x PWM Outputs (8 Motor Output, 1 LED)
Battery input voltage: 2S-6S
BEC 5V 2A

Mounting - 20 x 20mm, Φ3.6mm hole with M3 & M2 Grommets
Dimension - 31x30x6mm
Weight – 5.5g
JST-SH1.0_8pin port (For 4in1 ESCs)
JST-SH1.0_6pin port (For DJI/Caddx HD System and other VTX)
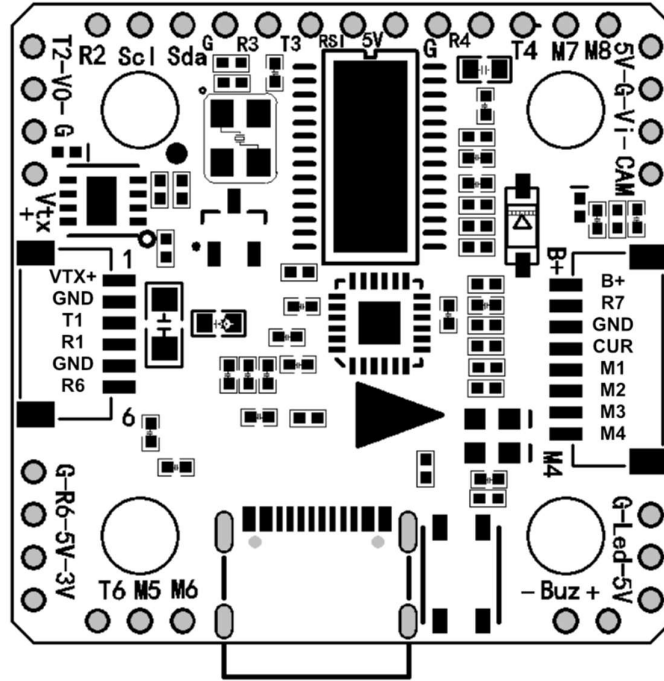
Package Includes:

1x Kakute H7 Mini Flight Controller
4x M2 Silicon Grommets
4x M3 Silicon Grommets
1x JST-SH1.0_8pin Cable (For ESCs)
2x JST-SH1.0_6pin Cable (For DJI Air Unit)
1x JST-SH1.0_6pin Colored Silicon Cable (For Caddx HD System and other VTX)

Pin	Function
VTX+	Battery Voltage for VTX, VTX ON/OFF Pit Switch
SDA, SCL	I²C connection (for peripherals)
5v	5v output (1.5A max)
3v3	3.3v output (0.25A max)
Vi	Video input from FPV camera
Vo	Video output to video transmitter
CAM	To camera OSD control
G or GND	Ground
RSI	Analog RSSI (0-3.3v) input from receiver
R2, T2	UART2 RX and TX
R3, T3	UART3 RX and TX
R4, T4	UART4 RX and TX
R6, T6	UART6 RX and TX (UART6 RX is located in the SH plug for use for serial RC)
LED	WS2182 addressable LED signal wire
Buz+/-	Piezo buzzer positive/negative leg
M5,M6,M7,M8	Motor 5,6,7,8 signal outputs

ESC Port	Function
B+	Battery positive voltage (2S-6S)
R7	UART7 RX
GND	Ground
CURRENT	CURRENT
M1	Motor signal outputs
M2	
M3	
M4	

VTX Port	Function
Vtx+	Battery Voltage for HD System or other VTX, VTX ON/OFF Pit Switch
G	Ground
T1	UART1 TX
R1	UART1 RX
G	Ground
R6	UART6 RX