

# MAMBA STACK

FC :MAMBA Basic APP F405 MK I  
ESC:MAMBA F50 PRO



## Stack Specifications:

MCU	STM32F405RGT6
Frequency	168MHz
GYRO	MPU6000
OSD	AT7456E
Blackbox	16M Memory
Uarts	6 Set
Receiver	TBS/SBUS/IBUS/DSM
I2C	Yes
RSSI Pad	Yes
F.Port	Yes
Buzzer Pad	Yes
CURR Pad	Yes
ESC Signal	4 Set
BEC 3.3V	0.5A
BEC 5V	3A
BEC 9V (DJI Power)	3A
MB LED	Yes
BF LED	Yes
WIFI	Yes
Input	6S Lipo
TVS Protection	Yes
Soft Ware	Betaflight
Mounting	30.5×30.5mm/M3
Size	38.0×41.5×7.5mm
Weight	9.5g

Web: [www.diatone.us](http://www.diatone.us)

Target: MAMBAF405US\_I2C

Main firmware STM32 F405

Config file MAMBAF405US\_I2C

When Using Compass Magnetometer,

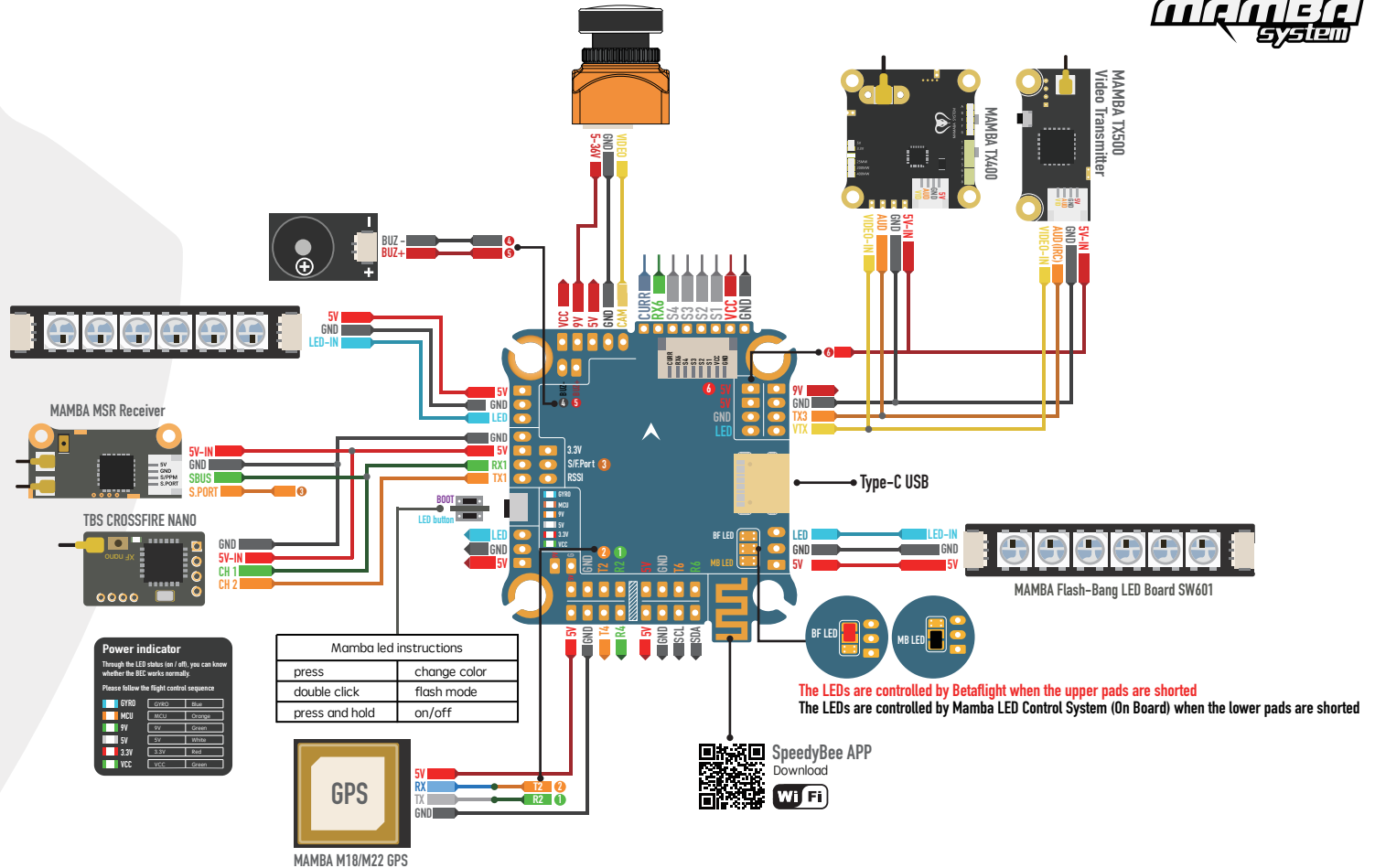
Following Command:

set mag\_i2c\_device = 1

set mag\_bustype = i2c

## The Default Port:

- UART 1 Receiver
- UART 2 Vacancy
- UART 3 VTX
- UART 4 WIFI
- UART 5 S/F.Port
- UART 6 TELE



**Power indicator**  
Through the LED status (on / off), you can know whether the BEC works normally.  
Please follow the right control sequence

67RD	LED	Red
MCU	LED	Orange
9V	TV	Green
5V	5V	White
3.3V	3.3V	Red
VCC	VCC	Green

Mamba led instructions

press	change color
double click	flash mode
press and hold	on/off

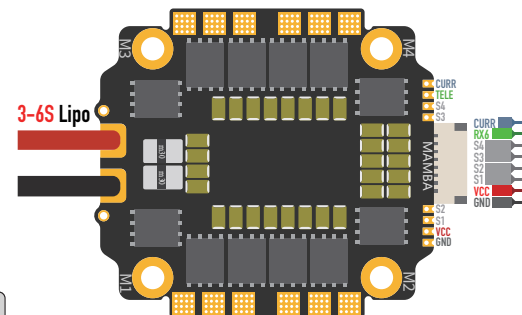


The LEDs are controlled by Betaflight when the upper pads are shorted  
The LEDs are controlled by Mamba LED Control System (On Board) when the lower pads are shorted

Capacitor requested when using 6S battery

Amperage Meter

Battery	0.00A	115	Scale[1/10th mV/A]
		0	Offset [mA]



MAMBA F50 PRO ESC

## ESC

CURR	Yes
Telemetry	Yes
Output Current	50A
Peak Current	55A
Input	3-6S Lipo
BLheli-32	Yes
Target	MAMBA F50 PRO
Protocol	Dshot 300/600/1200
Mounting	30.5×30.5mm,Ø 3
Size	45.0×41.0×6.5mm
Weight	15g

# MAMBA STACK

FC :MAMBA Basic APP F405 MKI  
ESC:MAMBA F50



## Stack Specifications:

MCU	STM32F405RGT6
Frequency	168MHz
GYRO	MPU6000
OSD	AT7456E
Blackbox	16M Memory
Uarts	6 Set
Receiver	TBS/SBUS/IBUS/DSM
I2C	Yes
RSSI Pad	Yes
F.Port	Yes
Buzzer Pad	Yes
CURR Pad	Yes
ESC Signal	4 Set
BEC 3.3V	0.5A
BEC 5V	3A
BEC 9V (DJI Power)	3A
MB LED	Yes
BF LED	Yes
WIFI	Yes
Input	6S Lipo
TVS Protection	Yes
Soft Ware	Betaflight
Mounting	30.5×30.5mm/M3
Size	38.0×41.5×7.5mm
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Target: MAMBAF405US\_I2C

Main firmware STM32 F405

Config file MAMBAF405US\_I2C

When Using Compass Magnetometer,

Following Command:

set mag\_i2c\_device = 1

set mag\_bustype = i2c

## The Default Port:

UART 1 Receiver

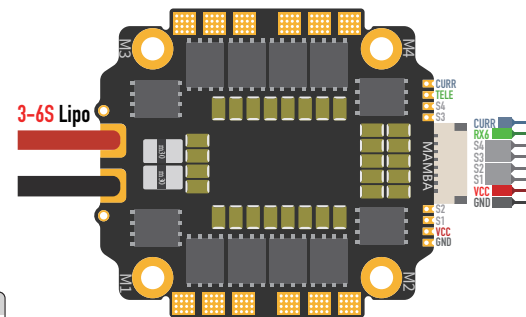
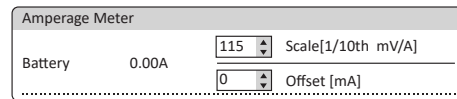
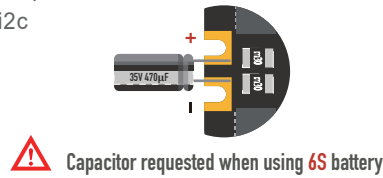
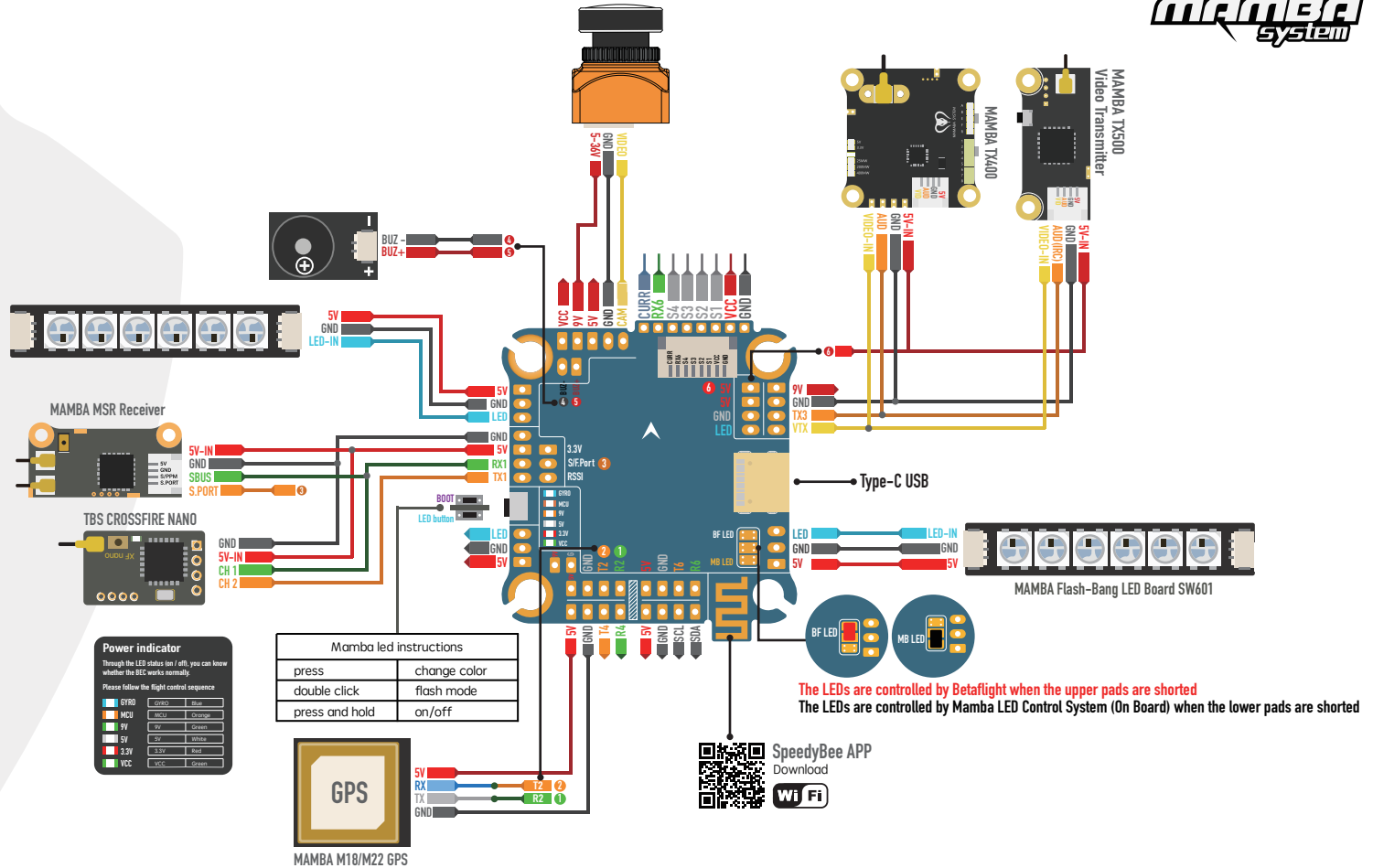
UART 2 Vacancy

UART 3 VTX

UART 4 WIFI

UART 5 S/F.Port

UART 6 TELE



MAMBA F50 ESC

## ESC

CURR	Yes
Output Current	50A
Peak Current	55A
Input	3-6S Lipo
BLheli-32	Yes
Target	CH40
Protocol	Dshot 300/600
Mounting	30.5×30.5mm,∅ 3
Size	45.0×41.0×6.5mm
Weight	15g