



MATEKSYS

FLIGHT CONTROLLER F722-WING

QUICK START GUIDE

MCU: 216MHz STM32F722RET6

IMU: MPU6000 (SPI)

Baro: BMP280 (I2C)

OSD: AT7456E (SPI)

Blackbox: MicroSD card slot (SPI)

5x Uarts (1,2,3,4,6) with built-in inversion

1x Softserial_Tx option

2x Motors & 6x Servos outputs

1x I2C

4x ADC (VBAT, Current, RSSI, AirSpeed)

Switchable Dual Camera Inputs

Switchable 5V/9V for Camera/VTX

9~36V DC IN (3~8S LiPo)

High-precision Current Sense 132A Range

BEC 5V 2A for FC

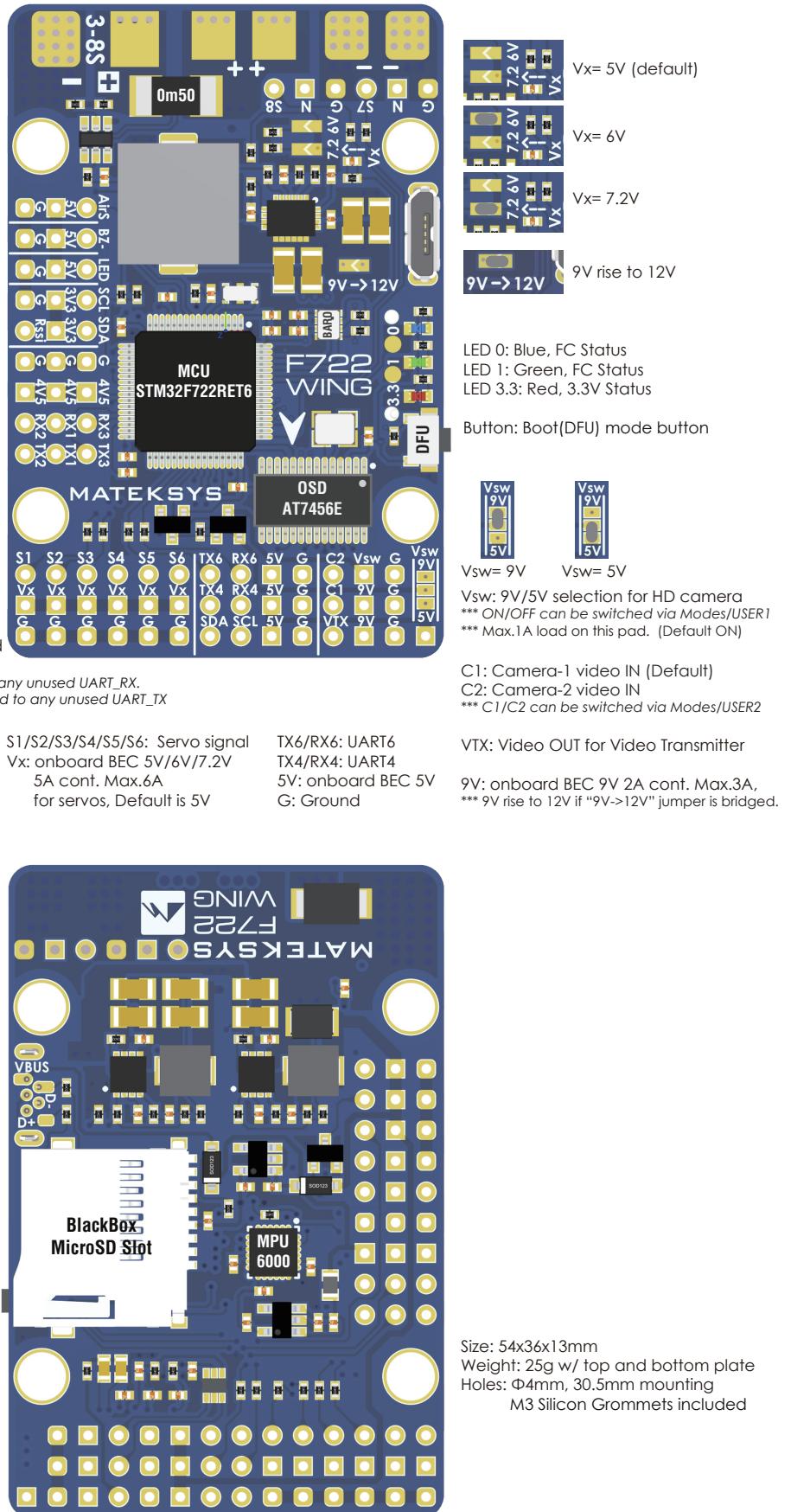
BEC 9V 2A for camera/VTX, 12V option

BEC Vx 5A for servos, 5V, 6V or 7.2V option

LDO 3.3V 200mA

LAYOUT

+ & - : Battery & ESC power pads, 9~36V DC(3~8S LIPO).
 S7/S8: ESC signal for motor 1 & 2
 G: ESC signal ground
 N: No circuit on this pad
 Voltage meter scale: 1100
 Current Sensor: 132A (Scale 250)



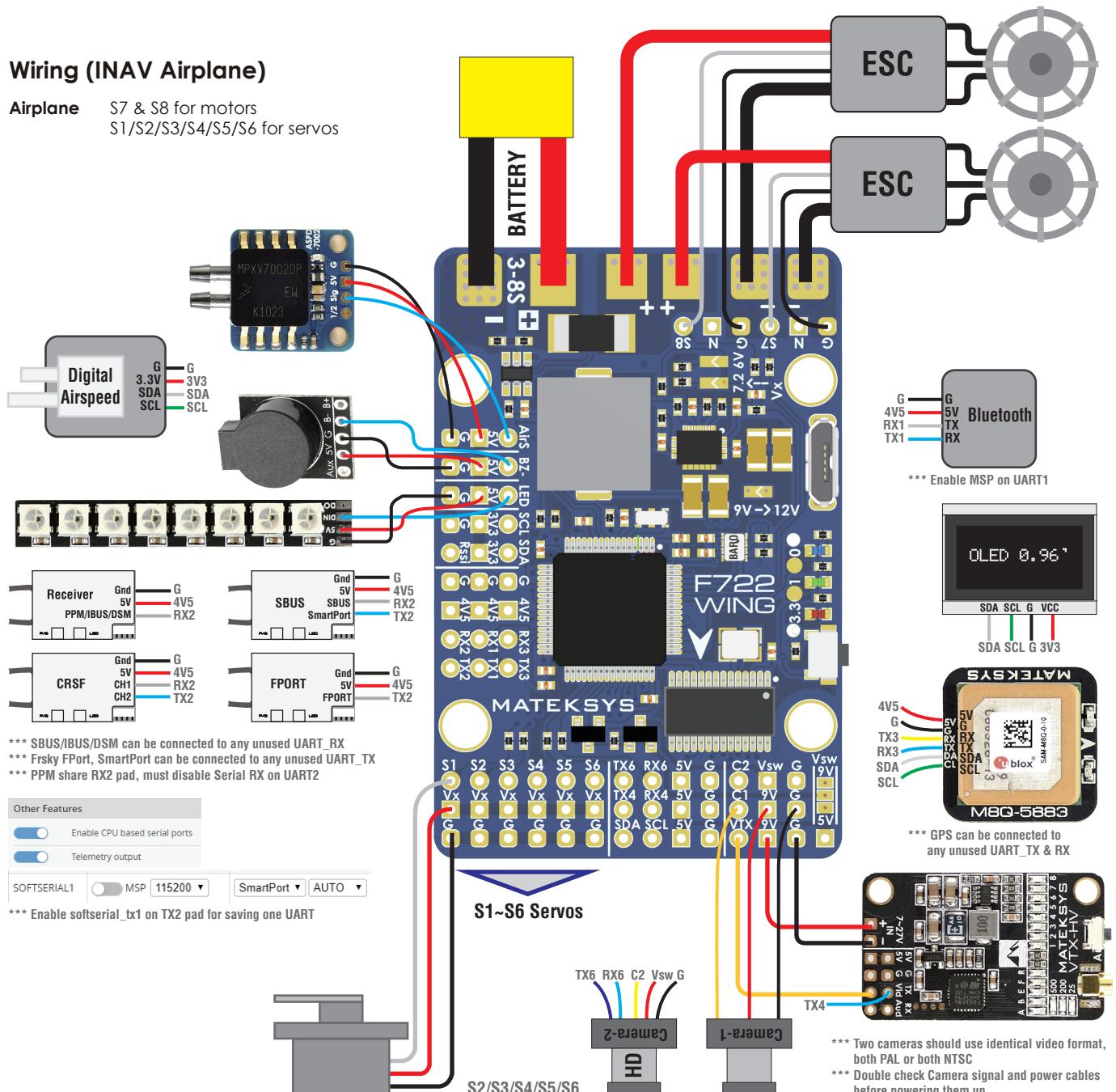
Target

INAV/BetaFlight: MATEKF722SE

*** CLI defaults after reflashing

Wiring (INAV Airplane)

Airplane S7 & S8 for motors
S1/S2/S3/S4/S5/S6 for servos



Identifier	Data	Telemetry	RX	Sensors	Peripherals
USB VCP	<input checked="" type="checkbox"/> MSP 115200	Disabled AUTO	<input type="checkbox"/> Serial RX	Disabled 115200	Disabled 115200
UART1	<input checked="" type="checkbox"/> MSP 57600	Disabled AUTO	<input type="checkbox"/> Serial RX	Disabled 115200	Disabled 115200
UART2	<input type="checkbox"/> MSP 115200	Disabled AUTO	<input checked="" type="checkbox"/> Serial RX	Disabled 115200	Disabled 115200
UART3	<input type="checkbox"/> MSP 115200	Disabled AUTO	<input type="checkbox"/> Serial RX	GPS 115200	Disabled 115200
UART4	<input type="checkbox"/> MSP 115200	Disabled AUTO	<input type="checkbox"/> Serial RX	Disabled 115200	IRC Tramp 115200
UART6	<input type="checkbox"/> MSP 115200	Disabled AUTO	<input type="checkbox"/> Serial RX	Disabled 115200	RunCam Device 115200
SOFTSERIAL1	<input type="checkbox"/> MSP 115200	SmartPort AUTO	<input type="checkbox"/> Serial RX	Disabled 115200	Disabled 115200

Vsw Power / Camera switcher

USER1 Add Range	No USER1 definition Vsw ON by default
USER2 Add Range	No USER2 definition C1 (Camera-1) ON by default

