# 80127

Airbot F7

F722 / 5VBEC / Camera control / 6x UART / Flash

The Airbot F7 flight controller uses the ICM20602 over SPI for ultimate flight performance. Onboard is an AB7456 OSD chip for fully integrated BetaFlight OSD.

The Airbot F7 supports 3-6S direct LiPo input, has 6x hardware UARTs, external I2C, external SPI, camera control, onboard flash, a micro RX connector, a 4-in-1 ESC connector, and a low profile for easy installs.

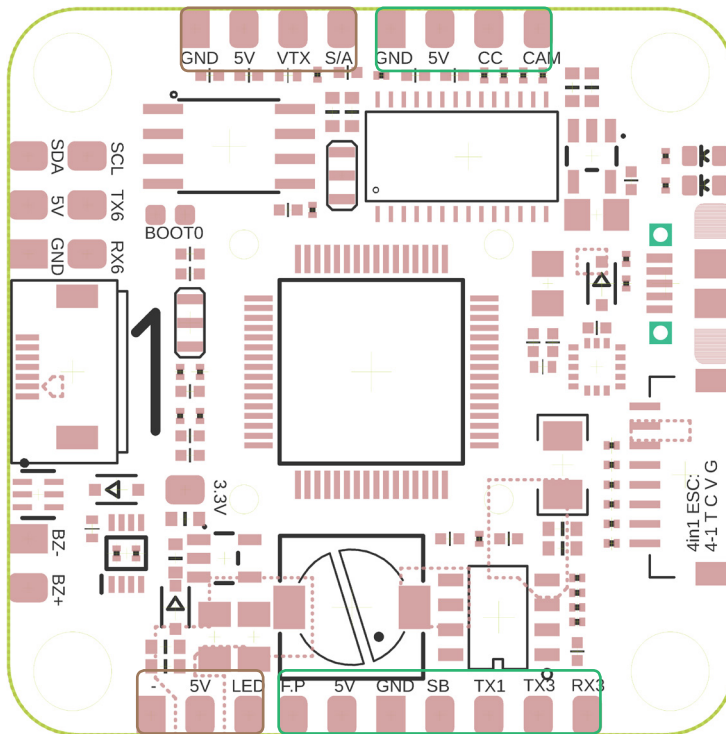- Firmware, please use Airbot F7 (will be incl. on the next release)
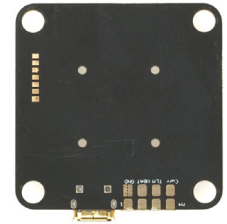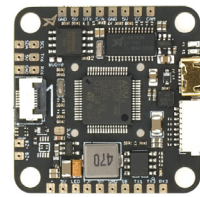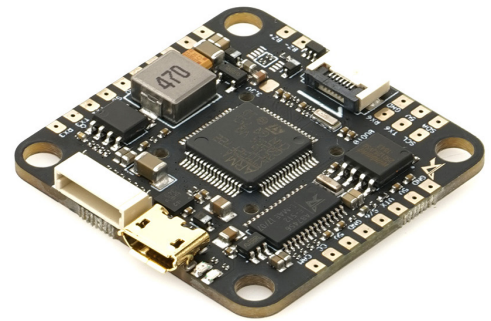
Features:

- STM32 F722 MCU, Runs Betaflight firmware
- ICM Gyro Over SPI Bus
- 30.5*30.5 mm Mounting holes
- Supports Lipo direct plugin (3-6S)
- Supports 5V 2A BEC output (Buck)
- STM32 controls OSD chip over SPI in DMA mode (Betaflight OSD)
- More UARTs   (6xUARTs)
- Supports camera control function
- Supports ext. Gyro box
- Onboard 128Mbit(16MB) flash for balckbox

Resources:

Function	Solder Pad Silk screen	Resouces	MCU Pin	Notes
SBUS	SB	RX 1	PA10	
DSM2	TX1	TX 1	PA9	CLI: serialrx_halfduplex set to ON
Smart Audio VTX	S/A	TX 5	PC12	
Smartport	S.P	TX 4	PA0	
ESC Telemetry	TLM	TX 2	PA2	CLI: set esc_sensor_halfduplex = ON
Camera Control	CC		PA8	
SDA	SDA	I2C1_SDA	PB9	Ext. Pull up needed
SCL	SCL	I2C1_SCL	PB8	
GPS	RX6/TX6	UART 6	PC6/7	
WS2812B LED	LED		PA15	
Buzzer	Bz-/Bz+		PB0	

Pinmap

VTX			
GND	5V	VTX	SmartAudio

Camera			
GND	5V	Camera control	Camera

Notification

New 4in1 socket definition, double check before connect anything

4in1 ESC
GND
VBAT
Current
TLM
M1
M2
M3
M4

Board labels:

VTX: GND 5V VTX S/A
Camera: GND 5V CC CAM
SDA SCL
5V TX6
GND RX6
BOOT0
3.3V
BZ-
BZ+
4in1 ESC: 4-1 T C V G
- 5V LED
F.P 5V GND SB TX1 TX3 RX3

LED		
GND	5V	LED

Receiver						
F.Port	5V	GND	SBUS	DSM2	Crossfire TX	CrossFire RX