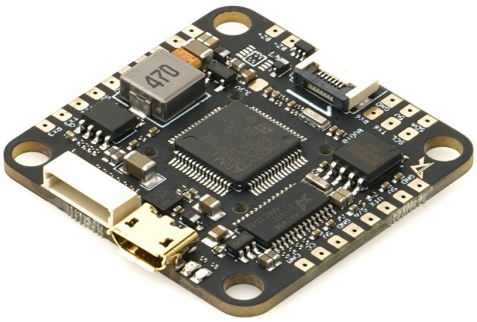
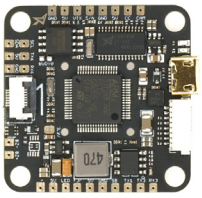
80131

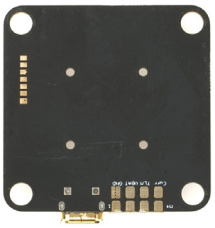
Airbot F7

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



The Airbot F7 flight controller uses the ICM20602 over SPI for ultimate flight performance. Also onboard is an AB7456 OSD chip for fully integrated BetaFlight OSD support. Other features of the Airbot F7 include: 3-6S direct LiPo input, 6x hardware UARTs, 1x external I2C, 1x external SPI, camera control, onboard flash, a micro RX connector, a 4-in-1 ESC connector, and a low profile for easy installs.





- Uses Airbot F7 firmware for BetaFlight (Will be included in next release)

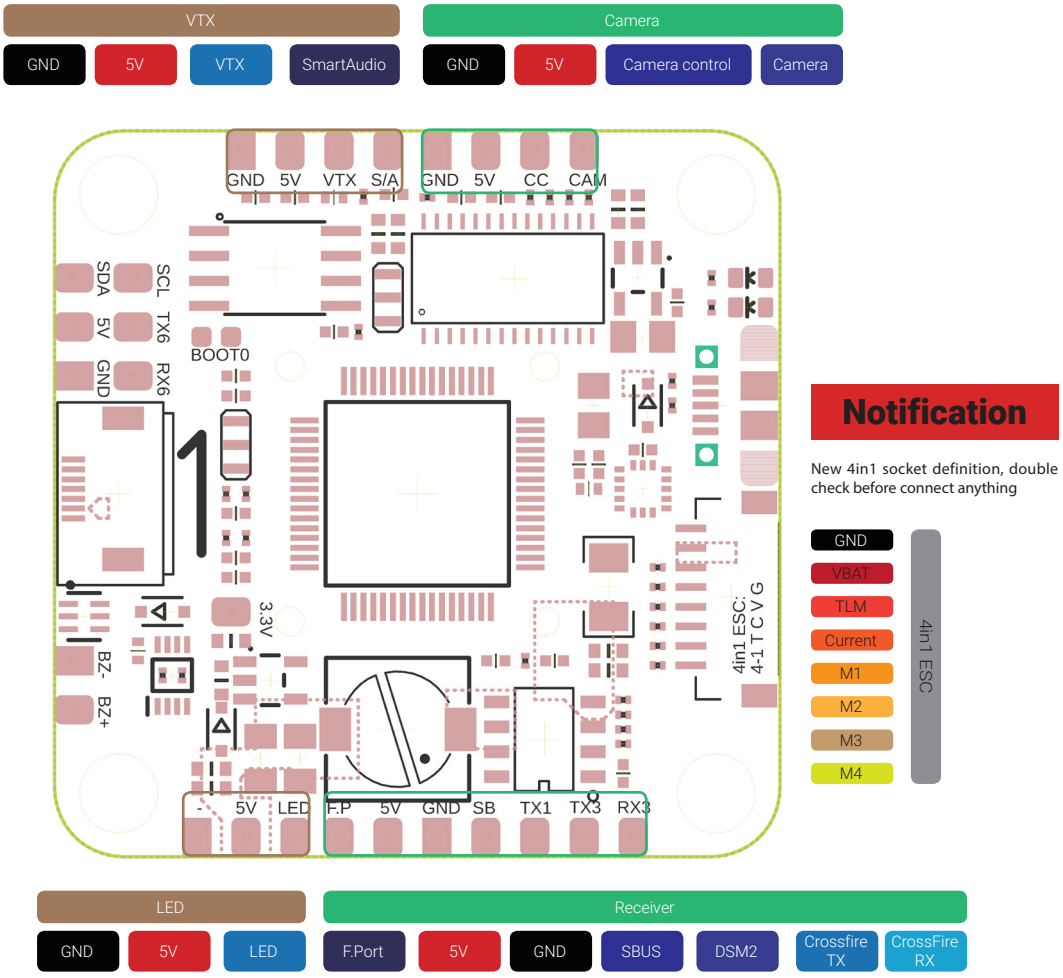
Features:

- 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
GND 5V VTX S/A
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
Notification
New 4in1 socket definition, double check before connect anything
GND
VBAT
TLM
Current
M1
M2
M3
M4
4in1 ESC
LED
GND
5V
LED
Receiver
F.Port
5V
GND
SBUS
DSM2
Crossfire TX
CrossFire RX