



The F405 ICM42688 V3 is a flight controller featuring the STM32F405 MCU, designed for FPV applications. It includes an ICM42688-P gyro connected via SPI, along with a built-in accelerometer and a SPL06 barometer, providing essential motion and altitude sensing capabilities. The device operates within an ambient temperature range of -20°C to 40°C and has a storage temperature range of -30°C to 50°C, with humidity tolerances from 20% to 95% RH (non-condensing). The compact unit measures 36x36 mm, weighs 9.6 grams, and offers versatile connectivity with five UART ports, analog OSD, support for various motor control protocols, and a USB Type C interface.

Product details	
Model	F405 ICM42688 V3
SKU	5447
MCU	
FC MCU	STM32F405
Firmware target	PILOTIXF405V3
Firmware support	Betaflight
OSD type	Analog OSD
Sensors	
Gyro	ICM42688-P
Gyro connection	SPI
Accelerometer	Built-in
Barometer	SPL06
Magnetometer	Built-in
Number of gyros	1
Electrical specification	
BEC	5 V @ 2.5 A, 9 V @ 2.5 A
Interfaces	
Motor control outputs	4

ESC protocols	PWM, OneShot125, Multishot, DShot150, DShot300, DShot600, DShot1000, OneShot42, Brushed
Bi-directional DShot	yes
Receiver protocol	SBUS, CRSF, ELRS, FrSky, Futaba, Flysky, TBS Crossfire, DSMX
DFU button	yes
I2C port	1
LED strip output	yes
SD card slot	no
UART ports	5
Buzzer output	yes
USB port	USB Type C
Video inputs	2
Video input	Analog
Video output	Analog
<b>Mechanical specification</b>	
Dimensions	36 x 36 mm
Mounting	30.5 x 30.5 mm (M3)
Weight	9.6 g
<b>Operating conditions</b>	
Operating temperature	-20 - 40 °C
Storage temperature	-30 - 50 °C
Humidity range	20-95% RH (non-condensing)
<b>Common</b>	
Package contents	Set of cables, Shock-absorbing balls (4x)
Warranty	2 years

## Wiring diagram

