

INSPIRED FLIGHT



IF750 Quadcopter

Specification Sheet

INSPIRED FLIGHT TECHNOLOGIES, Inc.



AIRCRAFT PERFORMANCE

Diagonal Size (propeller center to center)	750 mm (29.5 inches)
Dimensions (unfolded w/ propellers) (WxLxH)	965 x 965 x 545 mm (38.0 x 38.0 x 21.5 inches)
Dimensions (folded) (WxLxH)	405 x 375 x 320 mm (15.8 x 14.6 x 12.6 inches)
Max Recommended Takeoff Weight	6.8 kg (15.0 lbs)
Aircraft Weight w/ 2x - 155Wh Batteries	4.7 kg (10.3 lbs)
Payload Capacity w/ 2x - 155Wh Batteries	2.1 kg (4.6 lbs)
Max Angular Velocity	Tilt: 220°/s, Yaw: 140°/s
Max Tilt Angle	30°
Wind Resistance	10 m/s (19.44 knots) continuous, 12 m/s (23.3 knots) gusts
Max Ascent Speed	4 m/s (16 ft/s)
Max Descent Speed	2.5 m/s (10 ft/s)
Max Ground Speed	18 m/s (40 mph)
Operating Temperature Range	-10°C ~ 50°C (14°F ~ 122°F) (begin with vehicle above 0°C or 32°F)
Storage Temperature Range	-10°C ~ 40°C (14°F ~ 104°F)
Max Flight Time	See Figure 2 (page 4)
Max Altitude	See Figure 3 (page 4)

REMOTE CONTROL

Remote Control Unit	Union Robotics HereLink Blue
Remote Control Software	QGroundControl on Android (Mavlink & ATK compatible)
Radio Operating Frequency	2.4 GHz, 20 MHz Interference
Encryption	AES 128 Hardware Accelerated Encryption
Signal Range (line of sight)	3.7 KM (2 NM)
Remote Control Battery	Built-in 4950 mAh Lipo Battery
Remote Controller Certifications	FCC 20 KM, CE 12 KM
Operating Temperature Range	0-40°C (32-104°F)



FLIGHT HARDWARE

Flight Controller	Flight Controller	Modal AI Flight Core
	Operating Software	PX4 (Modified Quadrotor 4001)
	Barometer Accuracy	+/-1.5 mbar
Global Positioning	GPS	mRo Ublox Neo-M9N GPS & GLONASS
	Positioning Accuracy	1.5 m Horizontal
Power Distribution Board	Power Distribution	IF PDB4
	Total Motor Outputs	4x - 30A Continuous
	Auxiliary Power Rails	5v @ 5A, 12/15v @ 5A, battery voltage @ 60A
Propulsion	Motor	4x - IF Bernoulli 3
	Propeller	17" x 5.8" (432 x 147 mm)
	Max Thrust per Motor	3.4 kg (7.5 lbs) @ 24v
Default Navigation Light Color Pattern > if preference not specified > Optional Colors: Red, Green, Blue, Cyan, Magenta, Yellow, White		Front Left: Red Front Right: Green Rear Left & Rear Right: White

155Wh BATTERY (2x)

Max Energy at Nominal Voltage		155.4 Wh
Nominal Voltage		22.2 V
Nominal Capacity		7,00 mAh
Classification		Lithium Polymer 6S1P
Net Weight		870 g (30.7 oz)
Charging	Max Current	7.0 Amps (1C)
	Max Voltage	25.2 Volts
Discharge	Max Continuous Current	175 Amps (25C)
	Max Burst Current	350 Amps (50C)
	Minimum Voltage Cut-off	18.0 Volts (20.0v recommended)
Self - Discharge		<5% per month
Operating Temperature Range	Charge	0°C ~ 45°C (32°F ~ 113°F)
	Discharge	-20°C ~ 60°C (-4°F ~ 140°F)
	Storage	-20°C ~ 40°C (-4°F ~ 104°F)



Standard Battery Charger

Charger		Venom Pro Duo Battery Balance charger
Input Voltage		100v - 240v AC / 11.0v - 18.0v DC
Output Charge Capacity		80W x2
Lithium Battery Compatibility		Up to 4.2v/cell, 6s 25.2v max
Typical Charge Time (0 to 100%)	99Wh Battery	~90 Minutes
	155Wh Battery	~130 Minutes



FIGURE 2

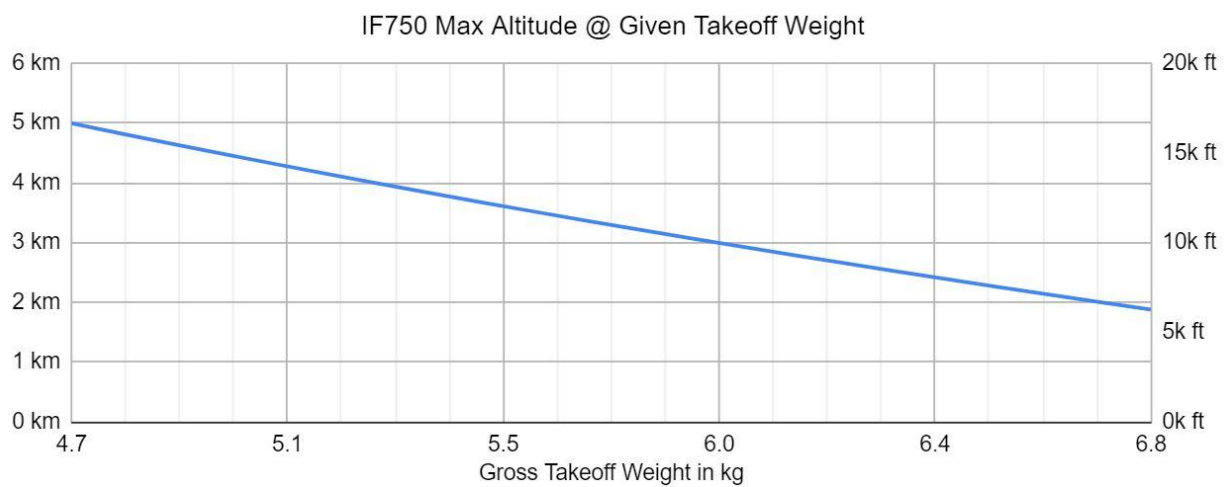


FIGURE 3