



INSPIRED FLIGHT TECHNOLOGIES, INC.

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IF1200A HEXACOPTER

Information Sheet

Version 1.0, updated July 2022

Specifications

Performance

Max Ascent Speed	5 m/s	16.4 ft/s
Max Descent Speed	2.5 m/s	8.2 ft/s
Max Air Speed	25 m/s	56 mph
Max Wind Resistance	12 m/s, 15 m/s gusts	23 knot, 29 knot gusts
Max Tilt Angle	30°	
Max Angular Velocity	Tilt: 300°/s, Yaw: 45°/s	
Operating Temperature	-10°C ~ 40°C	14°F ~ 104°F
Operating Humidity	10%~95%	
Service Ceiling (with given payload)	3.9 km (12,800 ft) w/ 4 kg, 2.2 km (7,200 ft) w/ 8.7 kg	

Physical Features

Diagonal Size (propeller center to center)	1,025 mm	40.4 inches
Unfolded Size (flight ready, WxLxH)	165.5 x 154 x 76.5 cm	65.1 x 60.6 x 30.2 inches
Folded Size (stow, WxLxH)	47.5 x 49.5 x 47 cm	18.7 x 19.5 x 18.5 inches
Empty Weight (w/o batteries)	7.8 kg	17.2 lbs
Weight w/ Batteries	16.3 kg	35.9 lbs
Max Gross Takeoff Weight	25.0 kg	55.0 lbs
Max Payload Capacity	8.7 kg	19.1 lbs
Transport Case Size (WxLxH)	64.8 x 64.8 x 58.4 cm	25.5 x 25.5 x 23.0 inches
Transport Case Weight (w/ aircraft)	29.0 kg	64 lbs

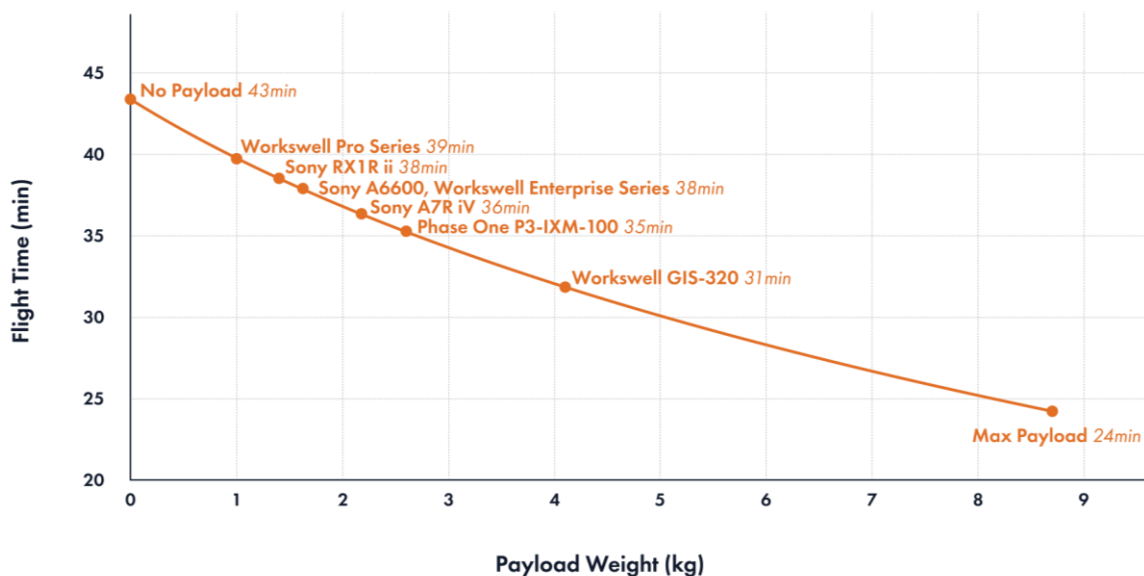
Flight Stack

Flight Controller	CubePilot Cube Blue H7 Triple Redundant IMUs
GNSS / Compass	CubePilot Here3 M8P (2x)
Payload Power Rails	5v, 12v/15v, 18v, 44.4v (12s battery voltage)
Payload Interface	IFT Universal Payload Interface V2.1
Operating Software	Copter by Ardupilot

Flight Modes

Position Hold	Holds altitude and position, manual roll and pitch
Loiter	Holds altitude and position, precision manual movements using GPS
Auto	Executes pre-defined mission
RTL	Auto returns to takeoff location and lands
Land	Auto land while maintaining position
Altitude Hold	Holds altitude only, failsafe mode if GPS signal lost

1200A Flight Time @ Given Payload Weight



HereLink Blue

All in One Live Video GCS

GCS Interface	NW Blue HereLink Blue w/ 5.46" Touchscreen
GCS Software	QGroundControl V3.X (Android)
Frequency	2.4 GHz
Signal Range	5.5 KM (3 NM)
Radio Certifications	FCC 20 KM, CE 12 KM
Encryption	AES 128
GCS Weight	920 g



Radio & Telemetry

BlueUAS Certified GCS

GSC Interface	User Provided (PC or tablet compatible with QGC)
GCS Software	QGroundControl V3.X (Linux, Windows, Android)
Telemetry Radio	RFD 900X-US (Air/Ground)
Frequency / Power	902-928 MHz up to 1 W
Signal Range	Up to 40 KM (25 Miles)
Encryption	AES 256
Remote Control	Jeti DS-12 Transmitter
Frequency / Power	2.4 GHz @ 100 mW
RC Signal Range	3 KM (1.5 NM)
RC Weight	725 g



710Wh Battery (2x)

Nominal Energy	710.4 Wh
Nominal Voltage	44.4 V
Nominal Capacity	16,000 mAh
Continuous Discharge	400 Amps (25C)
BMS Self Discharge	To 3.9v/Cell after 120 hrs, ~3% per month



TA1200 Battery Charger

Input Voltage	100v-240v AC
Max Charge	Up to 4.2v/Cell
Battery Compatibility	12s, 50.4v Max
Typical Fast Charge Time	~70 Minutes (120vAC)
Output Charge Rate	750w x 2 (120vAC), up to 1200w (240vAC)



Camera Payloads From IFT

FPV Upgrade

SONY DSC-RX0M2, 1" Stacked Back Illuminated Sensor,
Ultra-Compact Camera
Gremsy Mio Gimbal with Quick Disconnect and Gremsy
Dampening Plate



RX1R Optical

SONY CYBER-SHOT DSC-RX1 RII, 35MM F2.0 ZEISS
Sonnar T Lens with Macro Capability
Gremsy S1 v3 Gimbal with Quick Disconnect and Gremsy
Dampening Plate



A6600 Optical

Sony Alpha 6600 Premium E-mount APS-C Camera
Sony E-mount Prime & Zoom Lense options
Gremsy S1 v3 Gimbal with Quick Disconnect and Gremsy
Dampening Plate



A7R Optical

Sony Alpha 7R IV 35mm Full-Frame 61.0MP Camera
Sony E-mount Prime & Zoom Lense options
Gremsy T3 v3 Gimbal with Quick Disconnect and Gremsy
Dampening Plate



Wiris Pro EO/IR

Workswell Wiris Pro, Wiris ProSC, or Wiris Agro R w/ 10x
Optical Zoom & Interchangeable IR Lenses, 640PX
Optional Storage capacity, refresh rate, & FOV
Gremsy Pixy-WP Gimbal with Quick Disconnect and
Gremsy Dampening Plate



Wiris Enterprise EO/IR

Workswell Wiris Enterprise or Wiris EnterpriseSC with 30x
Optical Zoom & Interchangeable IR Lenses, 640PX
Optional Storage capacity, refresh rate, & FOV
Gremsy Pixy or S1 v3 Gimbal with Quick Disconnect and
Gremsy Dampening Plate



PHASEONE P3

Phase One P3 Integrated Camera & Gimbal Solution for
Mavlink supported drones
iXM-GS120, iXM-100, or iXM-50 Camera, Prime lens
options from 35mm to 300mm
Gremsy P3 Gimbal with Quick Disconnect and Gremsy
Dampening Plate

