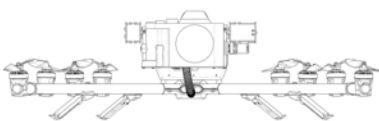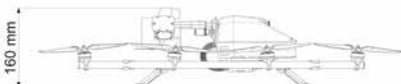*(intel)*

Intel® Falcon 8+
Performance. Precision. Safety.

The Intel® Falcon 8+ is an advanced drone with full electronic system redundancy and is designed with safety, ease, performance and precision in mind. The Intel® Falcon 8+ is outfitted for industrial inspection, surveying and mapping geared towards professionals and experts. This sophisticated system also includes the Intel® Cockpit for ground control and the Intel® Powerpack.

768 mm

817 mm

160 mm

Intel® Falcon 8+
The Intel Falcon 8+ is an advanced ready-to-fly UAS for professional drone service providers and industries for North American markets. This patented V-form octocopter provides **full electronic system redundancy,** which features redundant batteries, redundant communication between all flight relevant components and redundant sensing. The UAS has **automated aerial sensing solutions** with best-in-class onboard sensors – providing detailed orthography down to millimeter accuracy Ground Sample Distance (GSD). Consistent waypoint automation enables exactly reproducible flights for valuable structural analysis. Utilizing these features, customers are able to detect and prevent damages of assets and infrastructure.

The leading edge UAV is powered with an enhanced **AscTec® Trinity technology.** A triple redundant autopilot with three redundant inertial measurement units compensates for hardware failures, external influences like electromagnetic fields and hard winds. Operators will have tremendous opportunities to generate valuable aerial precision data.

Intel® Cockpit
The newly designed Intel Cockpit features a water resistant, robust user interface even for use in harsh outdoor environments. With the integrated Intel® based tablet, operators are able to plan and execute highly complex missions with ease. The Intel Cockpit integrates independent control and safety features with low latency digital video link. This supports payloads with up to 1080p resolutions for the best possible live view. Amazing user simplicity with a complete single hand flight control joystick.

Intel® Powerpack
The smart Intel Powerpack batteries power the Intel Falcon 8+ and the Intel Cockpit and combine efficiency with industrial safety standards. The battery features automatic balancing, storage mode, charging and LEDs that display remaining battery life. It makes everyday battery handling easy. Small enough that it meets airline shipping requirements for batteries.

The Next Generation of AscTec® Falcon 8
The Intel Falcon 8+ builds upon the AscTec Falcon 8: Best performance and weight to payload ratio in the entire market, highest stability in harsh conditions, easily exchangeable and deeply integrated payloads, best safety including unmatched robustness against magnetic field disturbances, high-precision GPS and one of the world's largest drone reseller and support networks to support your drone business and daily operations properly.

Intel is focused on creating innovative new technologies and bringing new capabilities in the UAV segment. With the Intel Falcon 8+, Intel offers a highly reliable light-weight drone for challenging applications. Continue to learn more about Intel's activities in the Drone space visit www.intel.com/drones

Technical Specification[*]

INTEL® FALCON 8+	FLIGHT SYSTEM
Type	V-Form Octocopter
Size	768 x 817 x 160 mm
Engines	8 electrical, brushless (sensorless) motors with 125 W max. power each
Rotor diameter	8" (~ 20 cm)
Number of rotors	8
Rotor weight	6 g
Empty weight	1.2 kg
Payload weight (camera and gimbal)	0.8 kg
Take off weight	2.8 kg
Flight time	Up to 16 – 26 mins[**]
Data link range	1 km
Altitude above sea level	4000 m
Video link range	Up to 500 m
Tolerable wind speed	12 m/s (GPS Mode) 16 m/s (Height Mode, Manual Mode)
Power supply	2 x Intel® Powerpack 4000 (redundant setup)

INTEL® FALCON 8+	NAVIGATION SENSORS
AscTec® Trinity	Triple redundant Inertial Measurement Unit (IMU: barometer, compass, accelerometers, gyroscopes)
Global Navigation Satellite System (GNSS)	GPS and GLONASS

INTEL® FALCON 8+	AIRSPEED[**]
Manual Mode	16 m/s
Height Mode	16 m/s
GPS Mode	12 m/s
Climb / sink rate	
Manual Mode	10 m/s
Height Mode	3 m/s
GPS Mode	3 m/s
Turn rate	
Manual Mode / Height Mode	115 °/s
GPS Mode	75 °/s

INTEL® FALCON 8+	WIRELESS COMMUNICATION
2 independent (diversity) command and control links	2.4 GHz adaptive FHSS link 100 mW
Digital video link	Low latency digital link. 5.1 Ghz to 5.8 Ghz with up to 250 mW. Resolution depending on payload, up to 1080 p Full HD

[*] Disclaimer: All technical specifications are based on pre-series systems and are subject to change without notice. The pre-series system is an engineering sample. This device has not been authorized as required by the rules of the Federal Communications Commission. This device is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained. Safety Certification, CE assessment and other country approvals not yet completed.

[**] Airspeed and flight times can vary depending on payload, battery conditions and environmental conditions like temperature and weather.