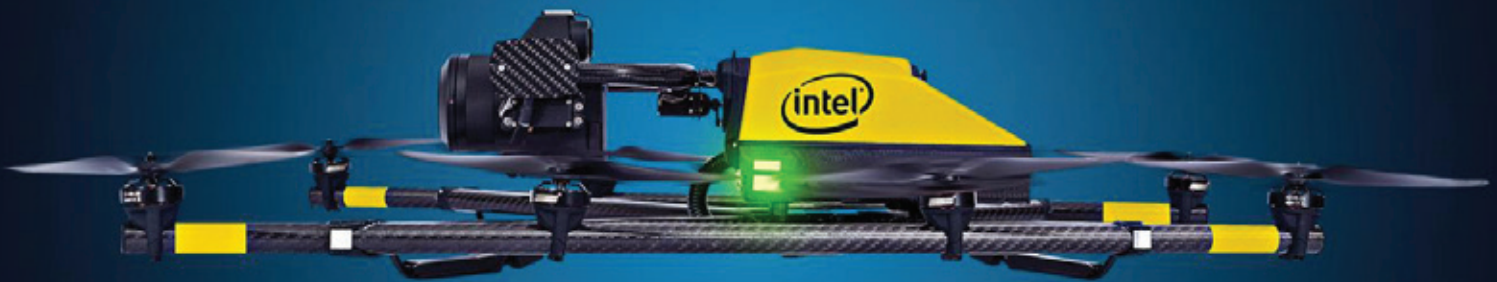
The background of the entire advertisement is a low-angle, upward-looking photograph of a large, cylindrical industrial cooling tower. The tower's surface is made of light-colored, textured panels. A black and yellow drone is flying in the air, positioned to the right of the tower, as if it is inspecting the structure. The sky is a vibrant blue with scattered white clouds. In the bottom right corner, a portion of a blue and white striped chimney stack is visible, emitting a plume of white smoke that rises into the sky.

INTEL[®] FALCON[™] 8+ SYSTEM

Designed for professional inspection and surveying.



The professional Intel® Falcon™ 8+ system offers advanced performance for business critical flights.



Best-in-class safety

With maximum electronic and hardware system redundancy, the AscTec Trinity Control Unit provides triple redundant flight control, with three redundant IMUs for quick and reliable data fusion that verify and control the UAV position, altitude, and orientation to help ensure responsiveness and stability during flights. Additional redundancies include communications, batteries, rotors and motors.

Robust flight performance

The Intel Falcon 8+ drone is designed to provide consistent, stable flights in the face of external influences like weak GPS signals and high winds as well as providing resistance to magnetic field disturbances. Lightweight with best weight to payload ratio for efficient flights, it allows you to collect incredibly accurate, high-quality, geo-referenced, actionable data, while operating in challenging environments.

Precision for accurate, actionable data

Professional payload options with the best weight-to-payload ratio on the market, provide detailed data for orthography and 3D reconstruction, with millimeter accuracy for ground sample distance (GSD). The unique, patented v-shaped design helps ensure unobstructed data capture and enables a greater than 180 degree view from top to bottom for a range of perspectives, from one camera, in one flight.



The Intel® Cockpit™ Ground Control Station is the main control for the Intel Falcon 8+ system and features an innovative joystick design for single-hand flight control.

Mission control and flight automation

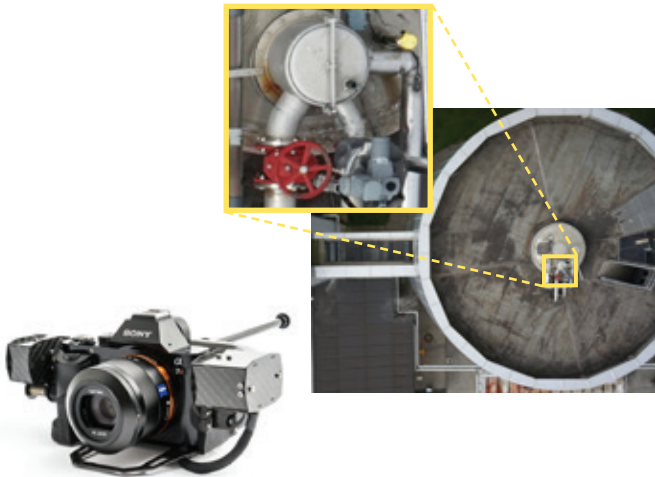
The professional grade Intel Falcon 8+ system combines high quality industrial design with a comprehensive mission control. Multiple feature options have been precisely designed to comply with the highest industry demands, enabling quick automated data generation.

Survey Package

Highest resolution for inspection, surveying and mapping

Sony* Alpha 7R

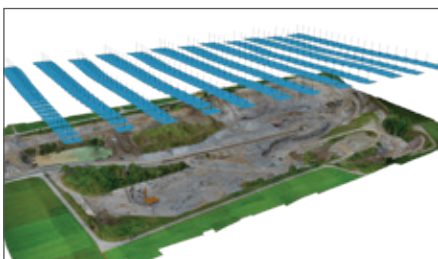
A precise 36 MP full-frame DSLM camera, the Alpha 7R includes a Sony Sonnar T* FE 35mm f/2.8 ZA Lens with Carl Zeiss T* anti-reflective coating in combination with a 35-mm full-frame sensor and BIONZ X* image processor.



Survey functions

Complex Flight Planning

The AscTec Navigator flight planning software enables high area output. Prepare complex waypoint missions on your laptop to automate survey flights.



Quick Survey

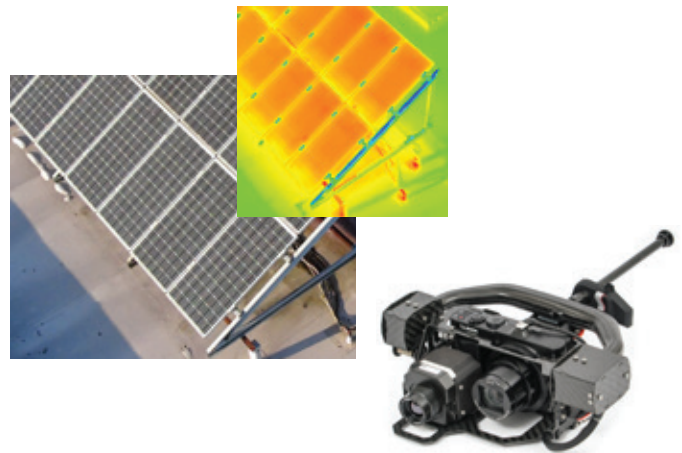
This tool supports a fast and automated survey flight without a laptop. Simply enter the required parameters such as ground sample distance, then define coordinates of start and final angle via Intel Cockpit Ground Control Station; the Intel Falcon 8+ drone will automatically set flight altitude, speed, GPS-based photo positions and overlapping to provide the desired results within the shortest flight time.

Inspection Package

Detailed thermal and visual information for industrial inspection

Inspection payload ZS50

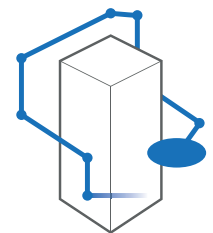
The hybrid RGB + 14-Bit RAW data inspection payload combines a near-infrared camera with a high resolution digital camera mounted in parallel. One inspection flight provides actionable data and images, including relevant position, time-stamping, orientation, and real-time thermal and RGB video feed.



Inspection functions

Path Planning with Exact Waypoints

WP/Path function creates an exact reproduction of aerial imaging. Several photo positions, including camera orientation, can be saved as single waypoints or as complex paths with many waypoints, thus providing an automated process to repeat the flight.



Circle of Interest (COI)

The Circle of Interest (COI) function generates a circular waypoint flight to enable the systematic capturing of images around the point of interest according to your setting.



Independent Camera Control (ICC)

A camera operator is able to control the payload orientation and pitch angle.



Intel Falcon 8+ Drone Technical Specifications

FLIGHT SYSTEM	
Type	V-shaped Octocopter
Size	768 x 817 x 160 mm
Engines	8 electrical, brushless (sensorless) motors with 125 W max power each
Rotor Diameter	8" (~20cm)
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 ¹	Up to 16-26 minutes
Max data link range ²	1 km+
Max altitude ²	4000 m MSL
Max video link range ²	1 km+ (FCC version)
Max tolerable wind speed	12 m/s (GPS Mode) 16 m/s (Height Mode, Manual Mode)
Power supply	2x Intel® Powerpack 4000 (redundant setup)

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

AIRSPEED	
Manual Mode	18 m/s
Height Mode	18 m/s
GPS Mode	4.5 m/s standard; up to 10 m/s in mapping flights
Climb/sink rate	
Manual Mode	6 to 10 m/s
Height Mode	3 m/s
GPS Mode	3 m/s
Turn rate	
Manual Mode/Height Mode	115 degrees/s
GPS Mode	75 degrees/s
Max pitch and roll angles	
Manual Mode/Height Mode	50 degrees/s
GPS Mode	45 degrees/s

WIRELESS COMMUNICATION	
Two independent (diversity) command and control links	2.4 GHz adaptive FHSS link 100 mW
Digital video link	Low latency digital link. 5.1 GHz with up to 250 mW. Resolution depending on payload, up to 1080p full HD.

¹ New batteries, fully charged and at room temperature. Flights performed at approximately 550 m above sea level at outside temperature of approximately 15 °C, no wind, slow and steady flight maneuvers, no hovering. Max battery life testing not complete at publish date.

² The pilot is responsible for knowing and complying with all laws and regulations applicable to the airspace in which the Intel Falcon 8+ System is operated. Jurisdictions have different safety rules such as: authorization for flying unmanned aircraft; flying near airports, manned aircraft, or people; operation within visual line of sight; altitude limits and others.

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

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