

AIRCRAFT

CONFIGURATION	Quadcopter
DIMENSIONS	Fits in a < 400 mm sphere; 15.75 in
MOTORS	4 fast reversing electric brushless motors
PROPELLERS	4 propellers, 5 inches
TAKEOFF WEIGHT	< 1450 g ; < 3,2 lbs Includes battery, payload & protection
MAX FLIGHT TIME	Up to 10 min
MAX ASCENT SPEED	1.5 m/s ; 5 ft/s
MAX DESCENT SPEED	1 m/s; 3,3 ft/s
MAX SPEED	1.3 m/s (Pilot assist) ; 4,25 ft/s 4 m/s (Attitude mode) ; 13.12 ft/s 6.5 m/s (Sport mode) ; 19.69 ft/s
MAX PITCH ANGLE	0.15 rad (Attitude mode) 0.2 rad (Pilot assist) 0.3 rad (Sport mode)
MAX WIND RESISTANCE	3 m/s (Pilot assist) ; 9,85 ft/s 5 m/s (Sport mode) ; 16,4 ft/s
FLIGHT CONTROL SENSORS	IMU, magnetometer, barometer, 7 vision and distance sensors
MATERIALS	Carbon fiber composites, magnesium alloy, aeronautical grade aluminum, high-quality thermoplastics
OPERATING TEMP.	0 °C to 50 °C* ; 32 °F to 122 °F
FLIGHT MODES	Pilot assist Attitude Manual thrust + attitude Sport
FAIL SAFE	Auto-landing on signal lost
OPERATING FREQUENCY	2404 – 2483 MHz (UAV to RC)
EIRP	2.4 GHz: @ 32 dBm (FCC); @20 dBm (CE); @10 dBm/MHz (MIC)
INGRESS PROTECTION	Splash and dust resistant
NOISE LEVEL	99 dB(A) hover 120 dB(A) max @ 1m

* additional precaution have to be taken between 0-10°C and 40-50°C. Stability, flight performance and flight time might be reduced

SMART BATTERY

RATED CAPACITY	5200 mAh
NOMINAL VOLTAGE	19 V
BATTERY TYPE	LiPo 5S HV Smart Battery: <ul style="list-style-type: none">- Improved safety (protection for: overcharge, overcurrent, over/ under-temperature)- Plug-and-play charging- Self-balancing- Storage self-discharge- State-of-Charge estimation- Cycle counter- Battery ID

ENERGY	98.8 Wh
CHARGING TIME	1.5 h
BATTERY CHANGE TIME	< 1 min
COMPLIANCE	Approved for carry-on luggage. Complies with IATA Dangerous Good Regulation.
NET WEIGHT	550 g ; 1,2 lbs
OPERATING TEMPERATURE	0-50°C *
CHARGING TEMPERATURE	10 - 45°C ; 50°F - 113°F
MAX CHARGING POWER	150 VA AC power
CHARGER	Elios 2's Smart Battery Charger

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PAYLOAD CHASSIS

PAYLOAD HEAD	Damped for vibrations
CAMERA POD UPWARD TILT	+90 degrees
CAMERA POD DOWNWARD TILT	-90 degrees
PAYLOAD PROTECTION	Load limiting mechanism to protect the payload in the case of a frontal shock.

MAIN CAMERA

SENSOR	1/2.3" CMOS Effective Pixels: 12.3 M Sensitivity: Optimized for low light performance
PHOTO FORMATS	JPG
VIDEO FORMATS	MOV
VIDEO RECORDING RES	4k Ultra HD: 3840 x 2160 at 30 fps FHD: 1920 x 1080 at 30 fps
VIDEO STREAMING RES	FHD: 1920 x 1080 at 30 fps
MOVIE FOV	114° horizontal, 130.8° diagonal
PHOTO FOV	118.8° horizontal, 148.6° diagonal
TOTAL VERTICAL FOV	approximately 260° including camera tilt
LENS	2.71 mm focal length Fixed focal
CONTROL MODES	Auto mode with manual EV compensation
FILE STORAGE	MicroSD card (onboard the aircraft) Max capacity: 128 GB Recommended model: Sandisk Extreme micro SDXC UHS-I V30
SUPPORTED FILE SYSTEM	FAT32 for cards up to 32 GB, exFAT for cards bigger than 32 GB

THERMAL CAMERA

SENSOR	Lepton 3.5 FLIR
VIDEO RECORDING RESO	160 x 120 at 9 fps
LENS	FOV 56° x 42°, Depth of field 15cm to infinity
SENSITIVITY (NEDT)	<50 mK
WAVELENGTH (LWIR)	8-14 μ m

LIGHTING SYSTEM

TYPE	High-efficiency LEDs for even lighting in front, top and bottom, optimized for low impact of dust on picture quality. IR light used for stabilization system.
CONTROL	From remote controller, adaptive light beam controlled by camera pitch
MODES	Indirect/dustproof lighting Close up lighting Selective/oblique lighting
LIGHT OUTPUT	10k lumens

OPERATIONAL SAFETY & CRASHWORTHINESS

NAVIGATION LIGHTS	Green (starboard) and red (port) lights.
PROTECTION CAGE	Carbon fiber cage with soft coating, modular subcomponents for maintenance ease, thermoplastic elastomer suspensions, front opening dimensioned for easy battery access.
COLLISION TOLERANCE	Uniform all around the drone, up to 3 m/s on flat objects, up to 1.5 m/s on sharp objects

REMOTE CONTROLLER

OPERATING FREQUENCIES	2404 - 2483 MHz (RC to UAV) 5738 - 5808 MHz (RC to RC) 920.6 - 928 MHz (RC to RC, Japan only)
MAX TRANSMISSION DISTANCE	Up to 500 m in direct line of sight
EIRP	2.4 Ghz @20 dBm, 5.8 GHz @13 dBm, 920 MHz @10 dBm
WEIGHT	810 g (924 g with tablet holder)
OPERATING TEMP.	0 °C to 40 °C
OUTPUT PORT	HDMI, SDI, USB
BATTERY	6000 mAh 2S
CONTROLS	Aircraft control and payload settings
OPTIONS	Optional remote controller (camera operator) with video stream reception on a secondary screen, and dual control of camera settings.
BATTERY CHARGER	17.4 V / 57 W

TABLET

MODEL	Samsung Galaxy Tab Active 2
BATTERY CHARGER	USB Charger 5V
OPERATING TEMP.	-15 °C to 40 °C
CHARGING TEMP.	-15 °C to 40 °C
CHARGING TIME	5 hours
WORKING TIME	5 hours (when receiving video stream) to 76 hours (idle)
WEIGHT	415 g

TRANSPORT CASE

DIMENSIONS	61 x 44 x 53 cm
WEIGHT	11.5 kg
COMPLIANCE IATA	compliant for checked-in luggage.

COCKPIT SOFTWARE

FEATURES	Real time video and UAV telemetry, status visualization (remaining battery, payload settings, warnings, etc.), control payload settings and various configurations.
OPERATING SYSTEM	Android. Optimized for tablet provided with UAV system

INSPECTOR SOFTWARE

FEATURES	Video and thermal video viewer (frame by frame), flight log analysis including point of interests recorded during flight, screenshots and flight data export.
OPERATING SYSTEM	Windows 7, 8 and 10 (32 and 64 bits)