

ASIO DRONE



AIRCRAFT

Configuration	Dual coaxial propellers	Flight time	Up to 24 minutes
Motors	2 brushless motors	Propellers	Two propellers, Ø12"
Tilt system	Electromagnetic tilting system (no swashplate, no servomotor)	Max speed	Assisted: 1.5 m/s (3.2 ft/s) Manual: 7 m/s (23 ft/s)
Navigation LEDs	2: red (port), green (starboard)	Lighting LEDs	6 panels
Dimensions	Ø395mm, H295mm (Ø15.6", H11.6")	Wind speed resistance	Up to 4 m/s (13 ft/s)
Payload sensors	1x RGB 12MP camera, 1x IR camera	Payload tilt	180° (±90°)
Materials	Carbon fiber, Kevlar, aerospace grade composites, 3D printed thermoplastics	Sensors	3x IMUs, 1x magnetometer, 1x barometer, 7x distance sensors, 7x optical flow sensors
Operating temperature	0°C to 30°C (32°F to 86°F)	Operating frequencies	2402 – 2480 MHz
Weight	1kg (2.2 lb)	EIRP	< 20 dBm
Noise level	Hover: 80dB @ 1m (3.2 ft)	Protection	Dust and water projections
Control algorithms	Flight stabilization, Position hold, Pilot assist, Obstacle repulsion, Wall-lock, Safety slowdown, Rewind, Self-righting,		

REMOTE CONTROLLER

Screen size	5.5"	Resolution	Full HD (1920 x 1080 px)
Screen mirroring	Yes	Connectivity	microUSB, Wifi 2.4GHz
Transmission distance	Up to 16km (line of sight)	Operating frequencies	2402 – 2480 MHz
Joysticks	2 (aircraft and payload)	EIRP	< 20 dBm
Weight	515 g (18 oz)	Battery life	4 h
Operating temperature	0°C to 45°C (32°F to 115°F)	Battery	4950 mAh
Certifications	CE / FCC / SRRC		

BATTERY PACK

Battery type	Lithium Polymer (LiPo)	Nominal voltage	19 V
Energy	74.1 Wh	Capacity	3900 mAh
Charging time	1.5 h (100%), 45 min (80%)		
Storage temperature	-25°C to 35°C (-13°F to 95°F)	Plane transportation	Approved for carry-on luggage
Safety transport bag	Yes		

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RGB CAMERA

Sensor type	CMOS Rolling shutter	Sensor size	1/2.3"
Sensor resolution	12.3 MP	Still pictures resolution	4056 x 3040 px
Video recording	4K: 3840x2160 px, 30 fps	Video streaming	Full HD: 1920x1080 px, 30 fps
Formats	Video: MP4; pictures: JPG	Effective resolution	0.2mm at 30cm (1ft)
Field of view	153° diagonal, 121° horizontal	Depth of field	30cm (1ft) to infinity

IR CAMERA

Sensor type	FLIR Lepton 3.5 (radiometric)	Sensitivity	<50 mK
Sensor resolution	160x120 px	Wavelength	8µm to 14µm
Field of view	71° diagonal, 57° horizontal	Data recording	Stream of pictures, 9fps, JPG
Temperature range	Low gain mode: -10°C to 400°C (14°F to 750°F) High gain mode: -10°C to 140°C (14°F to 285°F)		

GIMBAL SYSTEM

Maximal upwards inclination	+90°
Maximal downwards inclination	-90°
Unobstructed vertical view	200° (center of FOV)
Unobstructed FOV (at ±90°)	50° (horizontal)
Stabilization	Passive damping

GIMBAL SYSTEM

Max luminosity	10k lumen (15 seconds)	Nominal luminosity	2k lumen (continuous)
Dimmable	0-100%	LED light temperature	5000 K
Nominal power	15W (eq. 2min flight time reduction)	Orientation	Left / right / up / front / down (dimmed by software)

TRANSPORT CASE

Dimensions	65x53x39 cm ³
Empty weight	11.5 kg
Total weight	15 kg