

ASIO X

TECHNICAL SPECIFICATIONS

ASIO SOLUTION CONTENT

- 1x ASIO X Drone
 - 1x 2.4GHz Remote Controller
 - 2x 256GB microSD Card (U3)
 - 2x Spare pair of propellers
 - 3x Battery and safety transport bag
- 1x Dual Battery charger
 - 1x Toolbox
 - 1x User manual
 - 1x Safety vest
 - 1x Pre-flight and post-flight checklist
 - 1x Transport box

DRONE

Configuration	Dual coaxial propellers	Flight time	Up to 20 minutes
Motors	2 brushless motors	Propellers	Two propellers, Ø13"
Tilt system	Patented Electromagnetic tilting system (no swashplate, no servomotor)	Max speed	Assisted: 1 m/s (3.2 ft/s) Manual: 5 m/s (23 ft/s)
Navigation LEDs	2: red (port), green (starboard)	Lighting LEDs	8 panels
Dimensions	Ø450mm, H315mm (Ø17.7", H11.6")	Wind speed resistance	Up to 3 m/s (10 ft/s)
Payload sensors	1x RGB 4K camera, 1x IR camera 1 x Luminosity sensor 1x 3D Time of Flight (ToF) Lidar 1x Radar	Payload tilt	180° (±90°)
Materials	Carbon fiber, aerospace grade composites, 3D printed thermoplastics	Sensors	3x IMUs (1 High-grade + 1 fallback) 1x magnetometer, 1x barometer, 6x distance sensors, 6x optical flow sensors 1x radar, 2x global shutter cameras (VIO)
Operating temperature	0°C to 40°C (32°F to 104°F)	Operating frequencies	2402 – 2480 MHz
Weight	1.150kg (2.53 lbs)	EIRP	< 20 dBm
Noise level	Hover: 80dB @ 1m (3.2 ft)	Protection	Dust and water projections
Control algorithms	Flight stabilization, Height Lock, Wall Lock, Tube Lock, Recovery, Rewind, Autoland	Certifications	CE, FCC
LEDs intensity	Up to 32000 Lumen	Data storage	Onboard SD card (FAT32 format, 256 GB, min. U3)

REMOTE CONTROLLER

Screen size	5.5"	Connectivity	microUSB, Wifi 2.4GHz
Screen mirroring	Yes	Operating frequencies	2402 – 2480 MHz
Joysticks	1 (2 for drone and 1 for 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 capacity	4950 mAh
Resolution	Full HD (1920 x 1080 px)		

BATTERY PACK

Battery type	Lithium Polymer (LiPo)	Nominal voltage	19 V
Energy	74.1 Wh	Capacity	3900 mAh
Charging time	1.10 h (100%), 40 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
Life Time	100 charge cycles		

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	720p, 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)	Sensivity	<50 mK
Sensor resolution	160x120 px	Wavelength	8µm to 14µm
Field of view	71° diagonal, 57° horizontal	Data recording	MP4 video, 9fps
Temperature range	-10°C to 400°C (14°F to 750°F)		

GIMBAL SYSTEM

Maximum upwards inclination	+90°	Total FOV	273° vertical, 121° horizontal
Frontal view	93° diagonal, 121° horizontal	Stabilization	Active Pitch stabilization, Passive vibration damping
Unobstructed FOV	vertical : 185°, horizontal: 121° at pitch 0°, 50° at pich +-90°		

LIGHTING LEDs

Max luminosity	40 000 lumen	LED light temperature	4000K, CRI 70
Dimmable	0-100% (levels > 20% available in strobe mode)	Orientation	Left / right / up / front / down (dimmed by software)
Nominal power	2x 15W (eq. 3min flight time reduction) at 100%		

VIO CAMERAS

VIO camera type (2x)	Mono Global shutter RGB
POV	150° diagonal, 127° Horizontal, 172x127 combined
Resolution	Up to 1280 x 800 px

3D LIDAR

3D LiDar FOV	106° x 86°
3D LiDar range	0.1 - 7m
3D LiDar framerate	5 fps

TRANSPORT CASE

Dimensions	66x54x39 cm3
Empty weight	11.5 kg
Total weight	16 kg