STONEX

X120^{GO} Laser Scanner

3D Handheld
Laser Scanner

STONEX
SLAM

X120^{GO} TECHNICAL FEATURES

The X120^{GO} is the latest generation system based on the SLAM technology, capable of covering any customer need. The range of up to 120 metres and a rotating head that maximises the coverage of the laser beam make it versatile for any environment. Equipped with 2 cameras and GNSS receiver for real-time point cloud colouring and orientation. The two cameras provide navigable and measurable panoramic cameras superimposed on the 3D model. The system allows for the survey of static scans in X-Whizz mode, automatically aligned to the SLAM survey. Backpack, shoulders hook, car mount and UAV mount for DJI M350 can complete the system.

LIDAR

Sensor Model	Hesai XT16	Hesai XT32
Max Range	120 m	
Min Range	0.5 m	
Return number	2	
Scanning Point Frequency	320.000 pts/s (single return) 640.000 pts/s (dual return)	640.000 pts/s (single return) 1.280.000 pts/s (dual return)
Field of view	360° x 290°	
Laser Class	Class 1 eye-safe per IEC/EN 60825-1:2014	
Channels	16	32
Wavelength	905nm	

COLOR CAMERA

N° of pixels	24 Mpx (2 cameras, 12 Mpx each)
Diagonal FOV	210°
Focal length	1.26 mm
Resolution	4000x3000 px
Sensor size	1/2.3 inch
Pixel size	1.55 μm

GNSS RECEIVER

Satellites Signal	GPS L1 C/A/L2P(Y)/L2C/L5 GLONASS L1/L2 Galileo E1/E5a/E5b BDS B1I/B2I/B3I QZSS L1/L2/L5
DGPS (RMS)	Horizon. 0.4 m+1 ppm Vertical 0.8 m+1 ppm
RTK (RMS)	Horizon. 0.8cm+1ppm Vertical 1.5cm+1ppm
Speed accuracy (RMS)	0.03m/s

1. Environment dependent
2. Any CPU, only NVIDIA GPU
3. SLAM only, no external platforms

SYSTEM

Relative accuracy	Up to 6mm[1]
Global accuracy	Up to 2cm[1] 5cm on UAV platform[1]
Control point support	Ground & wall
Data storage	512GB SSD
Communication	Wi-fi, Bluetooth, USB type-c, Lemo connector
Operating mode	SLAM & X-Whizz modes, real-time visualisation (colored and oriented)
Processing mode	Real-time processing Post-processing with GO*post*[2]

ELECTRICAL SPECIFICATION

Power consumption	26W
System supply voltage	20V
Operating time[3]	1.2 h (single battery)
External power	USB type-c
Battery input voltage	5-20V
Battery output voltage	10.8V
Battery capacity	3000mAh

PHYSICAL SPECIFICATION

Weight	1.6 kg (without battery) 2.1 kg (with battery)
Size	404 mm x 170mm x 188mm
Operating temperature	-20°C to +50°C (-4°F to 122°F)
Operating humidity	<95%
Waterproof/Dustproof	IP54

PLATFORM/EXTENSION

Backpack	✓
GNSS module	Integrated
360° camera	Integrated Insta X360 X4/X5/DJI Osmo360
Vehicle mount	✓
UAV	DJI M300/350
Radio Modem	Stonex SR02

BUNDLED SOFTWARE

GOapp

GOapp is dedicate mobile application for Stonex SLAM scanners, to manage projects, real time point cloud display, image preview, firmware upgrade and other operations. The APP runs on Android and iOS operating system.

GOpost

Windows post processing software which performs optimization processing, colouring of point clouds and creation of panoramic images. You can also import control points to georeference the point cloud.

STONEX AUTHORIZED DEALER

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