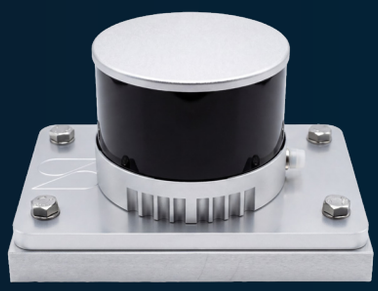
Datasheet
SDX-AutoScan





The SDX-AutoScan is a 3D LiDAR solution that delivers automatic, continuous as-built documentation for earthmoving projects. Its enhanced compatibility with Trimble Earthworks machine control technology enables a hardware-optimized solution that captures centimetre-accurate, high-resolution point clouds without any operator interaction. Ideal for large-scale grading in civil construction.

Technical Details

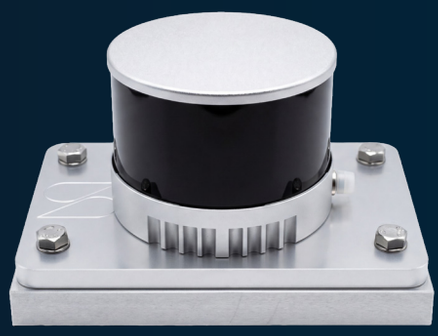
General	
Operating Temperature	-10°C to 50°C (14°F to 122°F)
Storing Temperature	-20°C to 60°C (-4°F to 140°F)
Ingress Protection	IP67
Standard Color	light grey
Scanning Range	15 m (50 ft)
Accuracy	
Absolute Horizontal Accuracy	1-2 cm (0.4-0.8 in) (1)
Absolute Vertical Accuracy	2-3 cm (0.8-1.2 in) (1)
Relative Accuracy	1.5 cm (0.6 in) (1)
Connectivity	
4G Modem (LTE/UMTS) Quectel EM05 Series	yes
Wi-Fi 5 802.11ac 2x2 dual-band EmWicon WMX6218	yes
Electrical	
Input Voltage	9-36 V
Power Consumption	<90 W (@24 V)

(1) under Sodex testing conditions

sodex INNOVATIONS www.sodex-innovations.com +43 664 1104345 info@sodex-innovations.com

Datasheet
SU10 (2000105)
3D-Scanner

Laser scanner for 3D data capture in combination with the SDX-AutoScan. The scanner continuously captures terrain as a point cloud, which is then processed into a digital terrain model.



Technical Details

General	
Weight	3.2 kg (7 lbs)
Scanning Range	15 m (50 ft)
Absolute Horizontal Accuracy	1-2 cm (0.4-0.8 in) (1)
Absolute Vertical Accuracy	2-3 cm (0.8-1.2 in) (1)
Relative Accuracy	1.5 cm (0.6 in) (1)
Laserscanner	
Laser Class	Class 1 - Eye Safe
Range	0.05 to 120 m (0.16 to 393 ft)
Channel	32
Ranging Capability	80m @10% Reflectivity (262 ft) (Ch. 9-24) 50m @10% Reflectivity (164 ft) (Ch. 1-8, 25-32)
FOV	360°
Opening Angle	31° (-16° to +15°)
Horizontal Resolution	0.18° (10 Hz)
Vertical Resolution	1°

(1) under Sodex testing conditions

Datasheet
CU30 (2000163) Computing Unit

The on-board computing unit processes the LiDAR data together with the dozer's machine control positioning information, then creates the final point cloud and handles connectivity for transferring the results.



Technical Details

General	
Weight	2.5 kg (5.5 lbs)
Mounting	Magnetic
Measurements	23 x 17 x 9 cm (9 x 6.6 x 3.5 in) (LxBxH)
Storage Space	
SSD	1 x M.2 2280/3080 Key M PCIe 3.0 x4 NVMe
Functions	
Real-time clock with battery backup	Supported
Power Supply	9~36VDC with ignition control (IGN)
CAN	1 x CAN 2.0A/2.0B (2.5KV isolated)
Wireless connectivity	
Mobile communication module	Prepared (1 x M.2 3042/3052 for LTE/5G NR)
Wireless LAN/ Bluetooth	Prepared (1 x mPCIe for Wi-Fi 5/6)
Hardware	
Temperature Monitoring	Yes

Interfaces	
Internal USB / OTG	1 x OTG micro USB
USB Version 2.0	2 x USB 2.0 Wafer-Typ (reserved)
Display Output (HDMI)	1 x HDMI 2.0A/B (bis zu 3840 x 2160@60Hz)
USB Version 3.2	2 x USB 3.2 Type A (5 Gbit/s)
Ethernet 10/100/1000	1 x GbE (Intel I210-IT, X-coded)
Power over Ethernet	4 x GbE PoE+ (IEEE 802.3af/at, 30W Budget)
serial port RS232	2 x RS232 (Tx, Rx, CTS, RTS / Tx, Rx)
Mini PCIe socket	1 x Full size mPCIe socket (PCIe 4.0 + USB 2.0)
I2C bus/ DI / DO	4-Bit DI / 4-Bit DO (reserved)
Electrical	
Input Voltage	9-36VDC (with OCP/OVP) / 24V rail (AI4CR)
Power Consumption	~15W
Environmental	
Operating Temperature	-30°C to 70°C (-22°F to 158°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
Ingress Protection	IP67 (rugged, fanless)
Shock	MIL-STD-810G (20g functional / 75g crash)
Vibration	MIL-STD-810G / IEC 60068-2-64 (2.0g)
EMC compliance	CE Class A, FCC Class A, UKCA
Security	EN50155, EN50121-3-2 (AI4CR)