

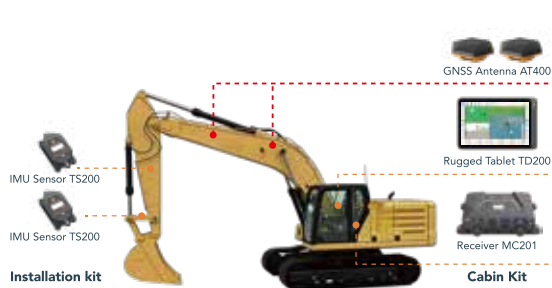
Machine Control Solution for Earth Construction



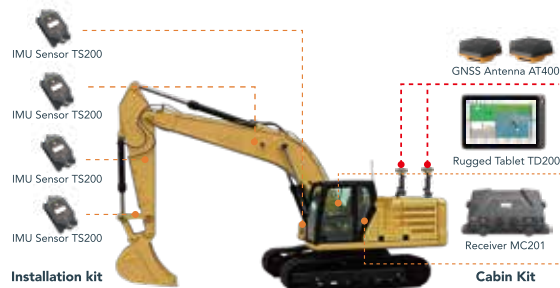
E20&E50 Flexidig 3D

Machine Control-Excavator

Flexidig 3D is an advanced machine control system for excavators, built around one flexible Cabin Kit that works across Compact and Standard Installation Kits — giving you flexible solutions that adapt to different types of excavators. It also supports one-click switching between 2D and 3D views, with dynamic rendering of excavation trajectories that gives operators real-time visual feedback, effectively preventing over- and under-excavation while delivering centimeter-level accuracy.



Flexidig 3D Compact (Boom Mounted)-E20



Flexidig 3D Standard (Body Mounted)-E50

Features



Continuous Slope



Surface



V-Shaped Slope



Trenching

Infield

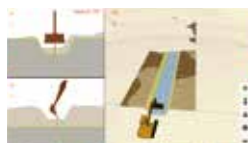
Seamless Software Upgrade

Full 3D



Full-posture 3D Modeling

3D model enables collision-free operation via full-posture display and safety zoning



3D Model Guidance

Files Types: .xml, .dxf, .sjw, .ttn, .road



Progressive Mapping of Real-time Work

Real-time quality heatmaps are generated from dynamic on-site construction data

Super Economic

Super Easy

Super Flexible

E20&E50 Flexidig 3D

Machine Control-Excavator



Mini



Large

Supports



Wheeled



Mono Boom



Swing Boom



Dual Boom



Cabin Kit

1+N Model

One cabin kit can be applied to multiple installation kits



Tilt Rotator

E20 & E50 Flexidig 3D

Technical Specifications



TD 200 Tablet

Size	270.9×173.5×33.2mm
Weight	1.3kg
Screen	10.1 1280×800px
System	Android 14.0
CPU	8 core
Operation Temperature	-30 °C ~+70 °C
Storage Temperature	-40 °C ~+85 °C
Ingress Protection	IP65



AT400 GNSS Antenna

Size	156.2×140×55.5mm
Weight	634g
Gain	40±2dB
Shock	50 g/6ms
Operating Temperature	-40 °C ~+85 °C
Storage Temperature	-40 °C ~+85 °C
Ingress Protection	IP67



MC201 Receiver

Size	221.5×159.5×58.5mm
Weight	1.15kg
Radio Protocol	HITARGET, Hi-far, TRIMTALK450S, TT450S 4800, TRIMMARKIII, TRANSEOT, SATEL-3AS(25k), SATEL-3AS(12.5k), SOUTH
Frequency	410-470MHz
CAN Baud Rate	250Kbps
RTK Correction Format	RTCM3.X, ,CMR
RTK(RMS)	Horizontal: 8mm+1ppm Elevation: 15mm+1ppm
Operation Temperature	-30 °C ~+75 °C
Storage Temperature	-40 °C ~+85 °C
External Power Input	9~36V
Ingress Protection	IP67



TS200 IMU Sensor

Size	95×48×27.5mm
Weight	183±10g
Dynamic Accuracy	0.3°
Static Accuracy	0.1°
Anti-Vibration Design	10g (10~2kHz)
High Impact Resistance	2000g
Operation Temperature	-40 °C ~+85 °C
Ingress Protection	IP68



Ground Leveling



Dredging & Desilting



Slope Trimming



Trenching & Grooving

E10 Lightidig 3D

Machine Control-Excavator

Lightidig 3D is a simplified machine control system for excavator, that provides real-time bucket position data and provides operators with 2D visual construction guidance, featuring a zero learning curve. Supporting on-site working surface design, it removes repetitive manual measurement and layout marking to significantly reduce construction costs.



Super Easy

- ◆ Quick Installation
- ◆ Easy to use

Super Accurate

- ◆ Full-posture centimeter accuracy

Super Efficient

- ◆ Reduce labor costs
- ◆ 30% Construction Efficiency improvement

E10 Lightdig 3D

Machine Control-Excavator

Features



Surface



V-Shaped Slope



Trenching



Continuous Slope

Applications



Ground Leveling

Factories, Industrial Parks,
High-standard Farmland



Trenching & Grooving

Pipeline & Municipal



Slope Trimming

Proving Ground, River Courses,
Shrimp Ponds, Fish Ponds

E10 Lightidig 3D

Technical Specifications



TD 102 Tablet

Size	281×181×42mm
Weight	1.5kg
Screen	10.1 1024×600px
System	Android 11.0
CPU	4 core
Operation Temperature	-30 °C ~+70 °C
Storage Temperature	-40 °C ~+85 °C
Ingress Protection	IP65
Channel	1408
RTK (RMS)	Horizontal: 8mm+1ppm Elevation: 15mm+1ppm
RTK Correction Forma	RTCM V3.X,CMR
Radio Protocol	HITARGET, Hi-far, TRIMTALK450S, TT450S 4800, TRIMMARKIII, TRANSEOT, SATEL-3AS(25k), SATEL-3AS(12.5k), SOUTH
Frequency	410-470MHz



AT300 GNSS Antenna

Size	150.4×65.0mm
Weight	345g
Gain	32±2dB
Shock	60 g/6ms
Operating Temperature	-40 °C ~+85 °C
Storage Temperature	-40 °C ~+85 °C
Ingress Protection	IP65



TS200 IMU Sensor

Size	95×48×27.5mm
Weight	183±10g
Dynamic Accuracy	0.3°
Static Accuracy	0.1°
Anti-Vibration Design	10g (10~2kHz)
High Impact Resistance	2000g
Operation Temperature	-40 °C ~+85 °C
Ingress Protection	IP68

D60

Machine Control-Bulldozer

Combined with the bulldozer, the SatLab ECS-D60 system is another essential tool for your projects, enabling efficient coverage and precise control to maximize productivity. With a comprehensive project overview, the system reports the quality of the job area and provides analytics of the sampling points.



Real-Time Display Pass Track



10 Hz Refresh Rate



Global Satellite Tracking



Rugged Antennas, Bases, and Cables



G60

Machine Control-Grader

The automation of machine control ushers in a new era of grading. The SatLab ECS-G60 integrates the latest in GNSS grade control, digital terrain models, and real-time data processing to enable the grader to achieve accurate grading with minimal manual intervention. This ensures quick construction adjustments, reducing material waste and operating costs.



Centimeter-Level and 0.1°
Heading Accuracy



Automatic Blade Control



Real-Time 3D Visual Guidance



Real-Time Sensor Feedback



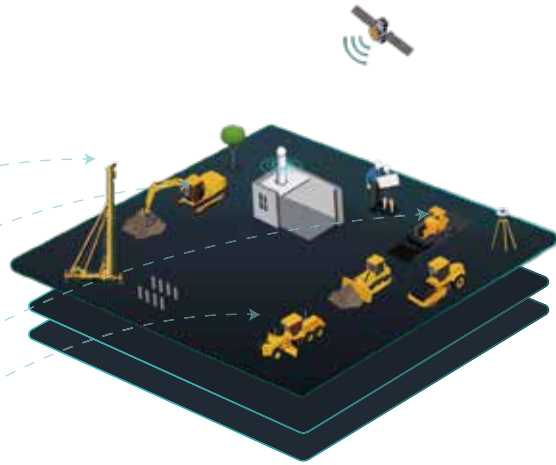
From Field to Cloud

The Complete Software System

SatMC

— Onboard Software

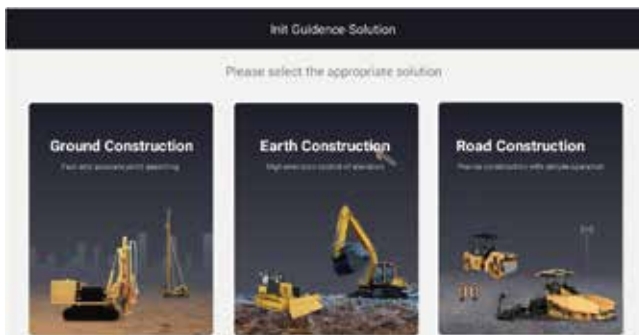
SatMC is the core software for SatLab's machine control system. With a user-friendly interface and powerful project features, it supports seamless integration with SatLab receivers and total stations. One-click project file sharing and intelligent functions streamline construction workflows and boost on-site efficiency.



Cloud Platform

— Smart Project Management

The cloud platform leverages IoT, mobile internet, cloud computing, BIM, big data, and AI to digitally manage all elements on construction sites. This enables lean construction methods and significantly enhances management efficiency for all stakeholders, including contractors and regulatory authorities.



System Settings

- 3D Design Data Settings
- CAD Plan Settings
- Localization File Settings
- GNSS Correction Information Settings

Device Information

- Operating Status
- Construction Machinery Information
- Remote Construction Monitoring
- Historical Data Download

Technical Specifications



TD122 Tablet

System	Android 11.0
Display	10.1" 5-Point Touch
Resolution	1280×800p
Dimension(W*H*D)	281*181*42 mm
Weight	1.5 KG
Power	9-36V DC Input



MC101 Receiver

Satellite System	BDS: B1I/B2I/B3I/B1C/B2a/B2b GPS: L1/L2/L5/L6 GLONASS: L1/L2 GALILEO: E1/E5a/E5b/E6 QZSS: L1/L2/L5/L6 SBAS: L1C/A
RTK(RMS)	Horizontal: 0.8 cm + 1 ppm, Vertical: 1.5 cm + 1 ppm
Network	LTE 4G, WiFi 802.11 a/b/g/n, 2.4 GHz
Bluetooth	4.2
Radio	410-470 MHz, Channel 116, Editable from 100 to 115
Connector	4x TNC (GNSS, UHF, GSM), 1x NANO SIM Card
Indicator	3x LED (Satellite, Correction, Power)
Dimension(W*H*D)	220*135*57 mm
Weight	1.5 KG
Power	9-36V DC Input
IP Rating	IP67
Environment	Operating Temp: -40℃ ~ +75℃, Storage Temp: -40℃ ~ +85℃



TS121 IMU

Range	Pitch ±90°, Roll ±180°
Static Accuracy	0.1°
Dynamic Accuracy	0.5°
Dimension(W*H*D)	11*8*4 mm, 14*8*4 mm
Weight	0.4 KG
IP Rating	IP68



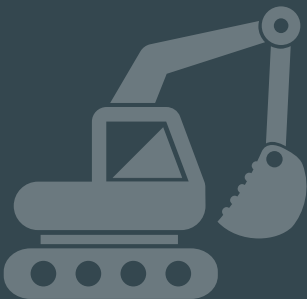
AT400 Antenna

Band	1164 MHz~1300 MHz, 1525 MHz~1615 MHz
Connector	TNC
Dimension(W*H*D)	156.2*140*55.5 mm
Weight	634 g
IP Rating	IP67

Machine Control Solution

Unlock Your Construction Efficiency

SatLab's Machine Control Solution integrates high-precision GNSS, angle sensors, and intuitive, user-friendly software to deliver real-time machine control and guidance for earth construction equipment. It streamlines workflows, minimizes rework, maximizes efficiency, and drives profitability.



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