

SMAJAYU

JYL20 GNSS LAND LEVELING SYSTEM

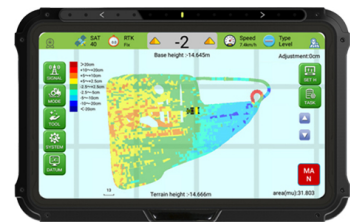
Ideal solution for precision agriculture

Overview

JYL20 GNSS land leveling systems is an accurate levelling system with high precision, high performance and visual operation map.

The system can seamlessly replace the laser grader, can be adapted to common leveling shovel, scraper, bulldozer, grader and other leveling machinery, realize the guidance and control of leveling machinery, leveling operation to achieve the purpose of accurate leveling, can greatly reduce the operator's fatigue and technical requirements.

It is a sharp tool for common farmland leveling, grid field transformation, wasteland reclamation, dry land conversion and ground surface leveling.



Key Features

Supports multiple constellations & frequencies:

- GPS L1, L2
- GLONASS L1, L2
- BeiDou B1, B2
- GALILEO E1, E5b
- QZSS L1, L2
- SBAS L1

10.1" touch screen control tablet

Match multiple scrapers.

Mobile Base Station, Simple to set up.

Scalable Auto-steering, Guidance System, Smart Spray System.

Visible working footprint and topographic map. Increasing 30% leveling efficiency.

Strong adaptability and all weather operations.

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Technical Specifications - T100 Control Tablet

System

Operating System:	Android 6.0
CPU:	Quad-Core 1.5GHz
Memory:	2GB RAM + 16GB ROM
External Flash:	T-Flash , up to 64GB
LCD:	10.1" Capacitive Touch Screen
Resolution:	1024x600 pixels

Communication

Wi-Fi:	2.4GHz IEEE 802.11 b/g/n
Cellular:	FDD-LTE 800 / 1800 / 2100 / 2600MHz TD-LTE 1900 / 2300 / 2500 / 2600MHz WCDMA 850 / 900 / 1900 / 2100MHz GSM 850 / 900 / 1800 / 1900MHz
Bluetooth:	V4.0
USB:	USB 2.0 (host & debug) x1
Audio:	3.5mm Audio Jack for Audio
Serial Port:	RS232 x2, RS485 x1
CAN Port:	CAN x2 (J1939, CANOpen, ISO15765)
Ethernet:	RJ45 (100M Ethernet) x1



GNSS

Signal Tracking:	GPS L1, L2; GLONASS L1, L2; BeiDou B1, B2; GALILEO L1, L2; QZSS L1, L2; SBAS L1
GNSS Channels:	432
Single Point Positioning Accuracy (RMS):	
– Horizontal:	1.5m
– Vertical:	2.5m
Real Time Kinematic, RTK (RMS):	
– Horizontal:	10mm+1ppm
– Vertical:	15mm+1ppm
Heading Accuracy:	
– 1m Baseline (RMS):	0.1°
Timing Accuracy (RMS):	20ns
Velocity Accuracy (RMS):	0.03m/s
Correction:	RTCM 2.3/3.0/3.2
Heading and RTK update rate:	20Hz
Network Protocol:	NTRIP, TCP/IP

Electrical

Power Input:	9V~36V DC
Power failure detection:	supported
Power output:	12V DC x2

Physical

Dustproof & Waterproof:	IP-65
Dimension:	281mmx181mmx42mm
Weight:	1.5kg
Operating Temperature:	-20 °C ~ +70 °C
Storage Temperature:	-40 °C ~ +85 °C

Sales Inquiry | sales@szfpotech.com
Technical Support | support@szfpotech.com

Information and related materials are subject to change without notice.

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Technical Specifications -A10 GNSS Antenna

Performance

Frequencies:	GPS L1,L2; GLONASS L1, L2; BeiDou B1, B2, B3
Impedance:	50Ω
Polarization:	RHCP
Axial Ratio:	≤3dB
Azimuth Coverage:	360°
Output VSWR:	≤2.0
Peak Gain:	5.5dBi
Phase Center Offsets:	±2mm

Environmental

Operating Temperature:	-45°C ~ +85°C
Storage Temperature:	-45°C ~ +85°C
Humidity:	95% not condensing



LNA

LNA Gain:	40±2dB
Noise Figure:	≤2.0dB
Output VSWR:	≤2.0
Operation Voltage:	3.3V~12V DC
Operation Current:	≤45mA
Ripple:	±2dB

Mechanical

Dimension:	φ 152x62.2mm
Connector:	TNC Female
Screw Hole for assembly:	5/8"×11 UNC Female
Weight:	374g

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Technical Specifications

- NMC101 Controller

Features

- Small size and high integration, easy to install; The system adopts CAN communication mode, and the wiring is simple and supports networking;
- Support 12V and 24V system, and have power protection function;
- Reach IP65 or above waterproof and dustproof standard, suitable for outdoor use;
- With input and output protection function, high reliability;

Performance

Communication interface:	CAN
Input control:	2-way analog (voltage)
Output control:	2 channels (switch signal/PWM)
Working voltage:	9~30V DC
≤45mA	≤45mA
Protection level:	>IP65

Environmental

Operating Temperature:	-35°C ~ +65°C
Storage Temperature:	-40°C ~ +70°C

Mechanical

Dimension:	120 x 61 x 34mm (without cable)
Weight:	22g

