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JY100 Guidance System

Overview

Sma jayu guidance system JY100 consists of professional GNSS smart antenna, large display and guidance software. It would be the ultimate guidance solution for today's precision farmer. soft-ware has farmer-friendly GUI and large iconic buttons for each function. It features navigation access within 3-click ideal for minimal training and guidance experience. JY100 is robust, accurate and affordable enabling you to easily perform various farming tasks, extend your operating hours and enhance the productivity of your farm.



Key Features

Supports multiple constellations & frequencies:

- GPS L1/L2/L5/L-Band
- GLONASS L1/L2/L3
- GALILEO E1/E5a/E5b/E6
- BDS B1/B2/B3
- QZSS L1/L2/L5/L6
- IRNSS L5
- SBAS L1/L5

10.1" touch screen control tablet Improve Efficiency Reduce the Waste Reliable GNSS Easy to Install and Move

Note: If users want to customize the product portfolio, please contact sales@smajayu.com by email.

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Technical Specifications - T100 Control Tablet

System

Android 6.0 Operating System: Quad-Core 1.5GHz CPU:

Memory: 2GB RAM + 16GB ROM

External Flash: T-Flash, up to 64GB

LCD: 10.1" Capacitive Touch Screen

1024x600 pixels Resolution:

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:

USB: USB 2.0 (host & debug) x1

Audio: 3.5mm Audio Jack for Audio

RS232 x2, RS485 x1 Serial Port:

CAN Port: CAN x2 (J1939, CANOpen, ISO15765)

RJ45 (100M Ethernet) x1 Ethernet:



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 NTRIP, TCP/IP Network Protocol:

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 -20 °C ~ +70 °C Operating Temperature: -40 °C ~ +85 °C Storage Temperature:

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Technical Specifications -A10 GNSS Antenna



Performance

Frequencies:

GPS L1/L2/L5/L-Band; GLONASS L1/L2/L3 GALILEO E1/E5a/E5b/E6; BDS B1/B2/B3 QZSS L1/L2/L5/L6; IRNSS L5;SBAS L1/L5

Impedance: 50Ω Polarization:RHCPAxial Ratio: $\leq 3dB$ Azimuth Coverage: 360° Output VSWR: ≤ 2.0 Peak Gain:5.5dBiPhase Center Offsets: $\pm 2mm$

Gain at Zenith 1164-1300MHz 6dBi(maximum) (90°): 1520-1615MHz 5.5dBi(maximum)

Environmental

Operating Temperature: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$ Storage Temperature: $-55^{\circ}\text{C} \sim +85^{\circ}\text{C}$ Humidity: 95% not condensing Water/Dust Resistance: IP67 Regulatory Compliance: NGS, CE, FCC, RoHS

LNA

LNA Gain: 40dB(typical)

Noise Figure: ≤2.0dB

Output VSWR: ≤2.0

Operation Voltage: 3.3V~12V DC

Operation Current: ≤45mA

Group Delay Ripple Group Delay Ripple

Mechanical

Dimension: $$\varphi$\ 173.4x62.6mm$$ Connector: TNC Female Mounting: BSW5/8"-11 screw, 12-14mm \$\$\leqslant 500g\$

