



# FARMSTAR-F3

## Auto-Steering System



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With over 25 years of expertise in GNSS technology and close cooperation with autonomous driving, Hi-Target has made substantial advancements in its precision agriculture systems over the past decade.

FARMSTAR-F3, Hi-Target's latest and advanced auto-steering system, provides agricultural machinery with precise  $\pm 2.5$  cm pass-to-pass accuracy, improving crop spacing and enhancing nutrient and sunlight absorption. Its meticulous navigation capabilities effectively minimize overlaps and gaps, leading to uniform crops and maximizing land use efficiency throughout farming seasons.

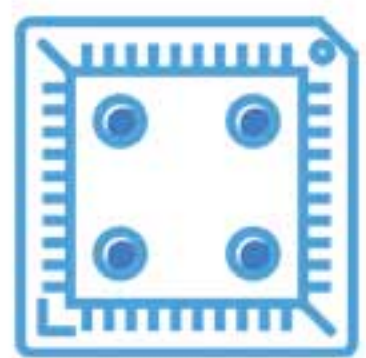


P200 Control Tablet



M600 Motor Steering Wheel

## Key Features



### Simplified Hardware Design

- All-in-one unit combining navigation, precision board, and radio.
- Supports dual antennas, external radios, and tablet flexibility.
- Compact spine size of 4.5 cm x 2.4 cm for space efficiency.



### Software Tailored for Global Users

- Adapted for using habit in 30+ countries, intuitive user interface.
- Simplifies vehicle/implement setup, task/field overview, and system monitoring.



### Advanced Algorithms for Precise Operations

- Linear motor control to reduce damage.
- Quick line acquisition with precision for efficiency and crop protection.



### Versatile System for Complex Environments

- Dual transmission modes of wired and wireless, dual antennas flexibility support various speeds and models.
- Multiple precision modes, including RTK, Galileo HAS, BDS PPP, and Trimble RTX.



### Cloud-Based Farm Management

- Streamlines farm management and supports farm, plot, boundary, and task online/offline sharing.
- Enhances productivity and resource utilization with real-time working data sharing between tractors.

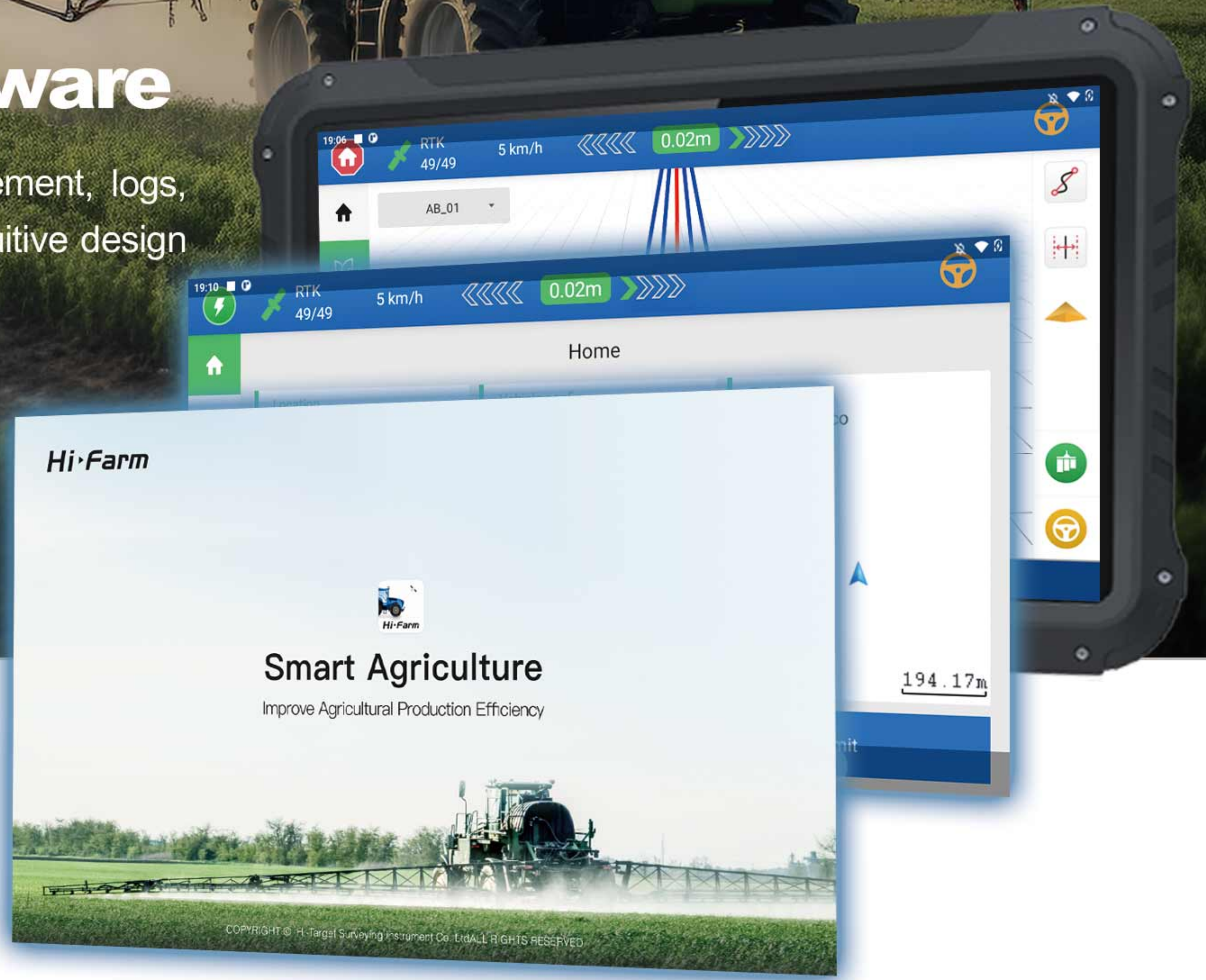


T800 Receiver

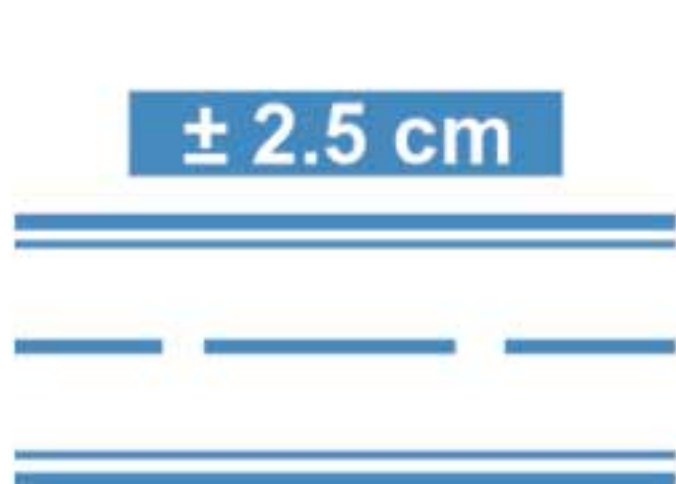
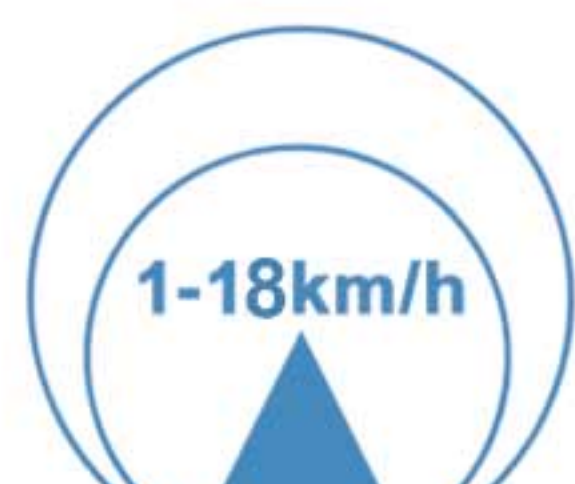
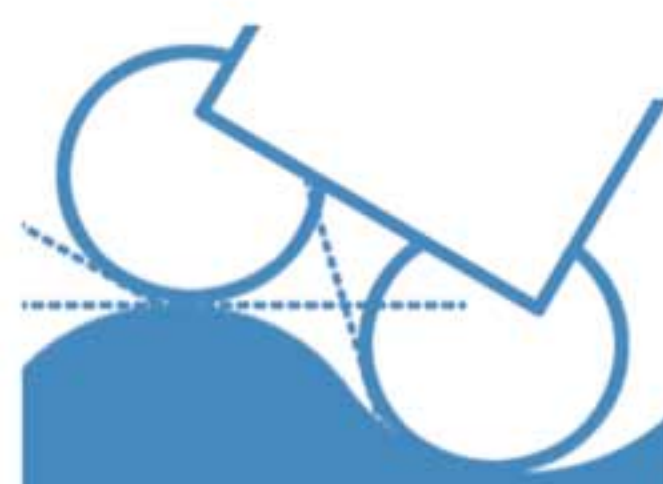





# Smart HiFarm Software

HiFarm combines auto-drive, farm management, logs, camera views, and remote control in an intuitive design for streamlined farming efficiency.

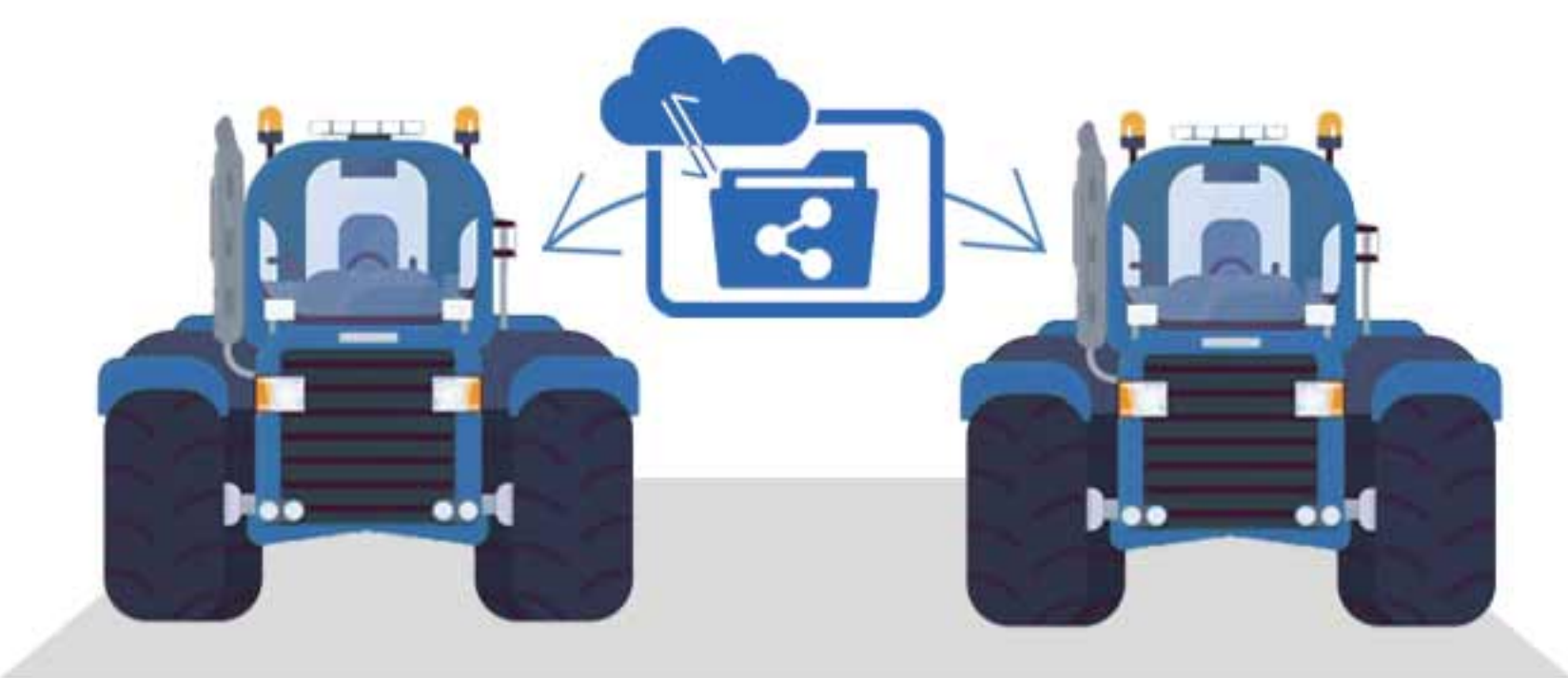


## Advanced Functions

					
Pass-to-pass accuracy	Without angle sensor	Slope compensation	Multiple guidance line	OTA update	Automatic U-turn across rows

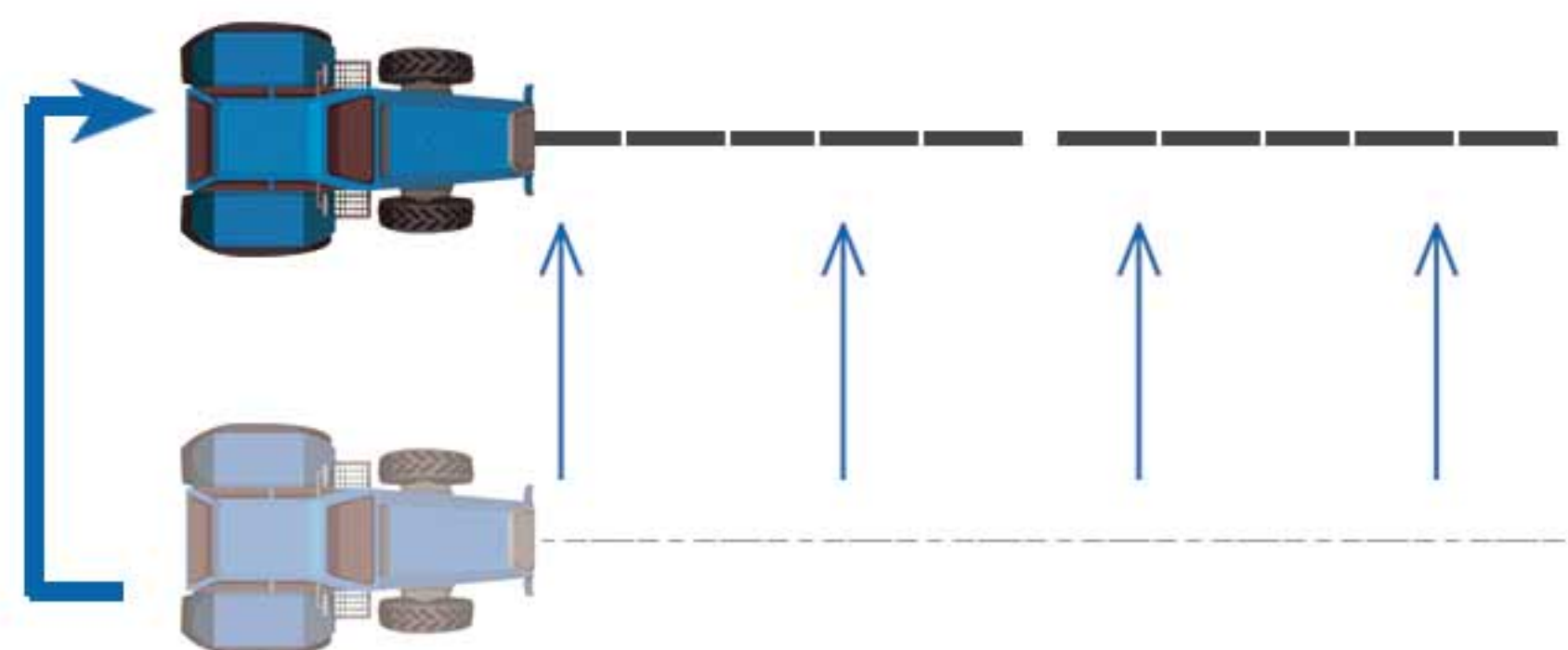
### Filed & Workline Share

Easily share farm information and workline data between tractors on the same field to reduce manual input errors and ensure accurate operations.



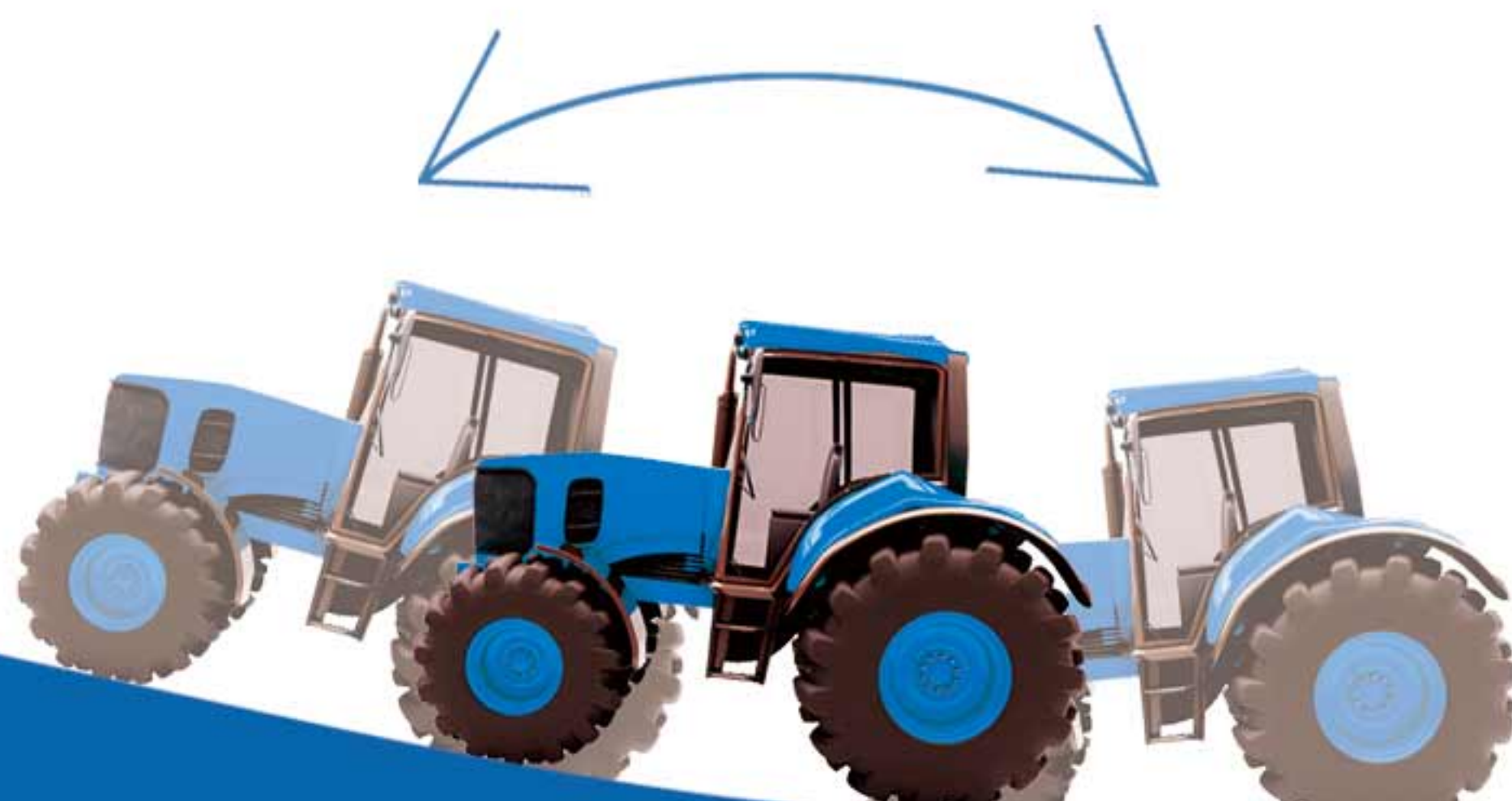
### Fast Workline Nudge

Allow quick path adjustments and maintain operational efficiency by reducing time lost to stopping and reprogramming.



### Automatic U-turn

Allow to do skip rows U-turns to accommodate the normal operation of tractors with different turning radius.



### Slope Compensation

Processed slope data in real-time to remain accurate on hilly or sloped terrain, reducing the risk of overlapping or missing field sections.

# Applications



# Specifications

## System

### GNSS Accuracy Index

RTK Accuracy	Horizontal: 8 mm + 1 ppm RMS Vertical: 15 mm + 1 ppm RMS
Max Location Data Update	20 Hz
Code Differential GNSS Positioning	Horizontal: 0.25 m + 1 ppm RMS Vertical: +0.5 m + 1 ppm RMS   SBAS: 0.5 m (H), 0.85 m (V)
Velocity Accuracy	Horizontal: 0.007 m/s RMS Vertical: 0.020 m/s RMS

### Performance

Pass-To-Pass Accuracy	±2.5 cm
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### Communication Interface

CAN Ports	2
WiFi	IEEE 802.11 b/g/n
Network Communication	4G network: TDD-LTE, FDD-LTE, WCDMA, TD-SCDMA, EDGE, GPRS, GSM
Data I/O Protocol	NMEA 0183 and J1939
Radio Module	Receive only Band: 410 MHz - 470 MHz

### Power Indicator

Input Voltage	7~36V DC
Reverse Power Protection	Support
Over Voltage Protection	Support

## Motor

Power Input	9~28V DC
Torque	Rated: 7 N.m Peak: 16 N.m
Wheel Diameter	420 mm
Motor Height	76 mm

## Receiver

### GNSS Signal

Channels	1408
Satellite Bands	BDS: B1I, B2I, B3I GPS: L1C/A, L2P(Y), L2C, L5 Galileo: E1, E5a, E5b, E6 GLONASS: L1, L2 QZSS: L1C/A, L2C, L5 SBAS: L1C/A

### External Interface

Radio	TNC*1 ①
GNSS	TNC*1 ②
Connector	Connector M23: 12-pin

### Environment Parameter

Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +85°C
Humidity	93% RH (Non-condensing)
Water and Dust Resistance	IP67

### Physical

Size	170 mm × 170 mm × 60.5 mm
Weight	1280 g

## Tablet

Display	10.1-inch touch screen
Dimensions (W × H × D)	281 mm x 181 mm x 42 mm
RAM	2 GB
ROM	16 GB
Water and Dust Resistance	IP65
System	Android 11.0
CPU	Quad-Core, 1.2 GHz



AUTHORIZED DISTRIBUTION PARTNER

24J221

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