

EAS502

MULTI-FUNCTIONAL AUTO-STEERING SYSTEM

Independently developed by ESURVEY, this multi-functional auto-steering system integrates a 12-inch high-performance display, EW3 electric steering wheel, and MC6A intelligent control unit. It enables semi-automatic operation for agricultural machinery, reducing operator fatigue and improving work efficiency. With high-precision positioning and steering control, it ensures consistent path execution for seeding, spraying, and harvesting, enhancing crop yield and reducing resource waste.



Versatile Compatibility

Suitable for tractors, transplanters, sprayers, harvesters, and construction machinery.

Easy Operation

12-inch high-brightness touch display with Android system, supporting intuitive configuration and real-time monitoring.

High Precision

Combined with MC6A's RTK positioning accuracy (0.8cm+1ppm horizontal) and EW3's precise steering, ensuring stable operation.

Flexible Communication

Integrated 4G, Wi-Fi, and radio modules for stable data transmission and remote control.

Durable & Reliable

Industrial-grade components with wide temperature resistance and IP65/IP67 protection, adapting to harsh outdoor environments.



Specification

System Specifications

System	
Accuracy	Dry land: 2cm (≤ 12 km/h) Paddy land: 5 cm (≤ 12 km/h)
Line acquisition distance	< 6 m
Vehicle velocity range	0.1 - 30 km/h
Multiple GNSS & PPP Modes	B2B-PPP, HAS-PPP, PPP-AR, PPP-RTK, RTK, SBAS
NMEA output	GGA, GSV, VTG, GSA, ZDA, RMC, GST
ISOBUS	VT, TC-BAS, TC-SC, TC-GEO, AUX-N
Steer Ready	CANBUS, PWM

EW3 Electric Steering Wheel Controller

Motor	
Working voltage	DC9-32V (compatible with DC12/24V vehicle systems)
Rated output torque	5.0N·m (DC12V @30RPM)
Maximum rotation speed	100 RPM
Response delay	< 0.4s
Frequency response	10Hz (full range) 20Hz (straight-line driving)

Working Environment

Operating temperature	-40°C - +70°C
Storage temperature	-40°C - +85°C
Mechanical shock	EP455/5.14.1
Vibration characteristics	EP455/5.15.1& 5.15.2
Water/dust proof	IP65 (GB/T 4208-2008)

Mechanical Specification

Motor dimension	212Ø182*67mm
Steering wheel size	Ø400*92mm
Weight	≤ 4.5 Kg (including steering wheel)

ST30E 12.1-inch Display

System	
Processor	MT8768, 8-core @2.0GHz
OS	Android 10
RAM	4GB LPDDR4X
ROM	32GB eMMC

Screen

Size	12.1-inch LCD
Resolution	1280 x 800
Brightness	750 nits
Touch panel	Capacitive touch screen, multi-point anti-glare

Power Supply

Input voltage	9-36V DC (with overvoltage, undervoltage, reverse connection protection)
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Physical Specification

Humidity	0% ~ 90% RH (non-condensing)
Operating temperature	-20°C - +70°C
Storage temperature	-30°C - +80°C
Water/dust proof	IP67

MC6A Intelligent Control Unit

GNSS Performance

Satellites tracked	<ul style="list-style-type: none"> GPS: L1C/A/L2P(Y)/L2C/L5 BDS: B1I/B2I/B3I GLONASS: L1/L2 QZSS: L1/L2/L5
Update rate	20Hz (standard)
Positioning accuracy (RTK)	<ul style="list-style-type: none"> Horizontal: 0.8cm + 1ppm Vertical: 1.5cm + 1ppm
Heading accuracy	0.1° rms @1.0m baseline
Re-acquisition time	≤ 5 s

Communication

Wi-Fi	Ai-M62-CBS
4G	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B18/B19/B20/B25/B26/B28; LTE TDD: B34/38/B39/B40/B41; GSM: B2/B3/B5/B8
Radio	Frequency range: 410-470MHz (standard) 220-230MHz (optional) 870-910MHz (optional)
Interfaces	14PIN (RS232/CAN x2) 2 x TNC (radio + GNSS)

Power Supply

Input voltage	9-36V DC (with overvoltage, undervoltage, reverse connection protection)
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Physical Specification

Dimension	161mm × 160mm × 59mm
Material	Aluminum alloy + engineering plastic
Weight	~0.97kg ± 20 g

Working Environment

Operating temperature	-30°C - +70°C
Storage temperature	-40°C - +85°C
Humidity	95% RH (non-condensing)
Water/dust proof	IP67