

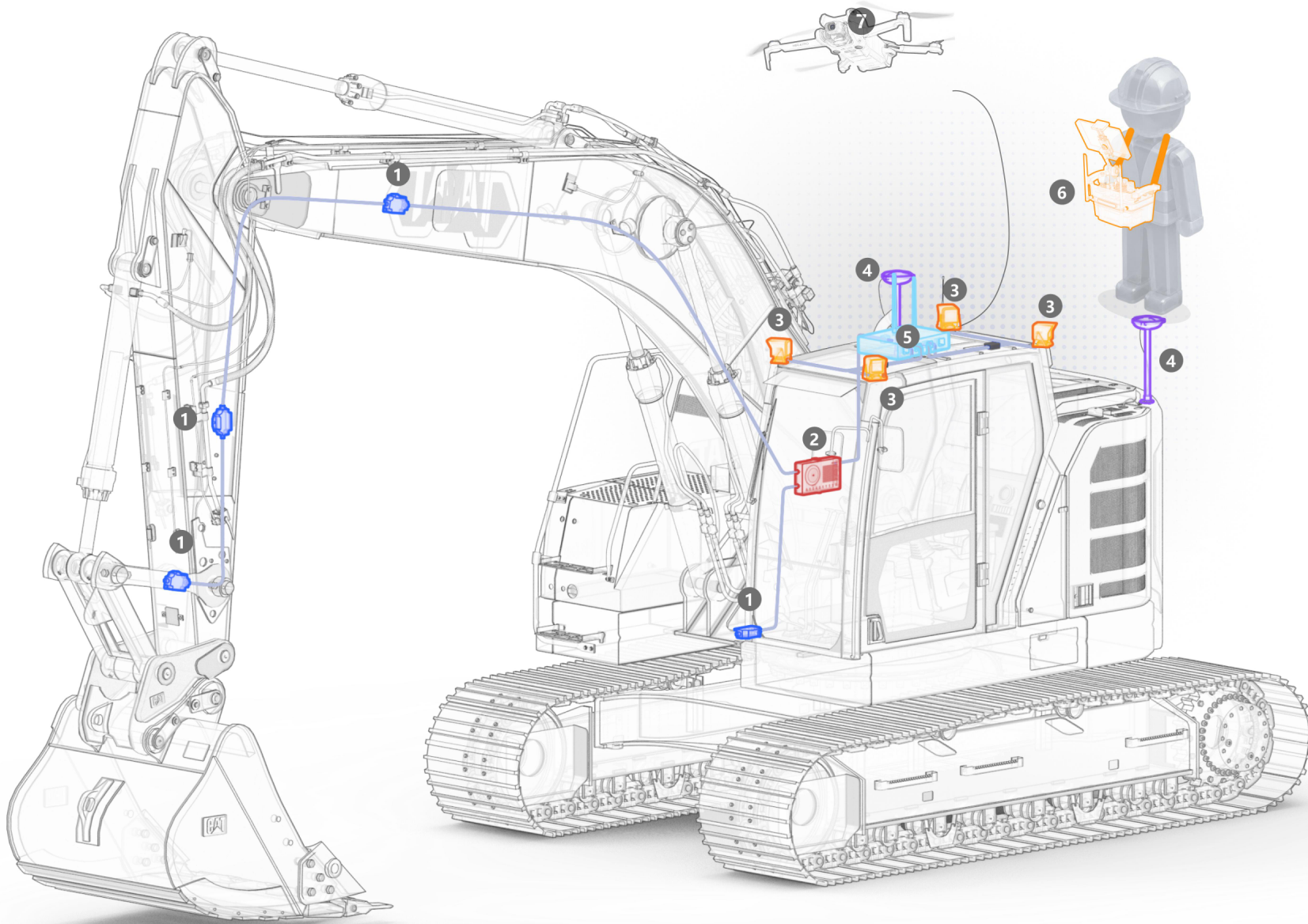


2026

Line-of-Sight Intelligent Remote Control System Product Manual

CAPSTONE V260907





1 JOINT SENSOR



2 GMCU



3 AI CAMERA



4 GNSS



5 ADS-LITE



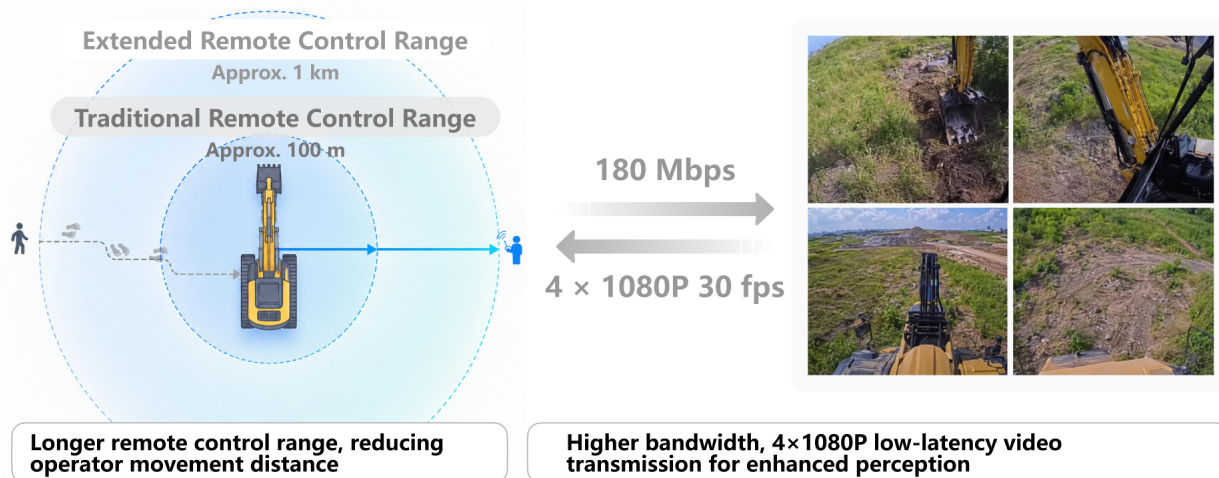
6 AICON-LITE



7 TETHERED DRONE (Optional)



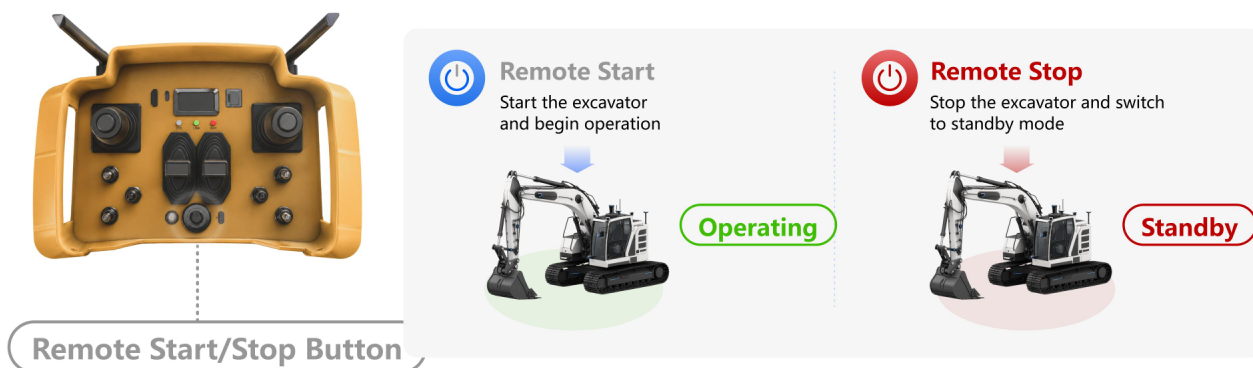
01 More Powerful Digital Video/Data Transmission Chip



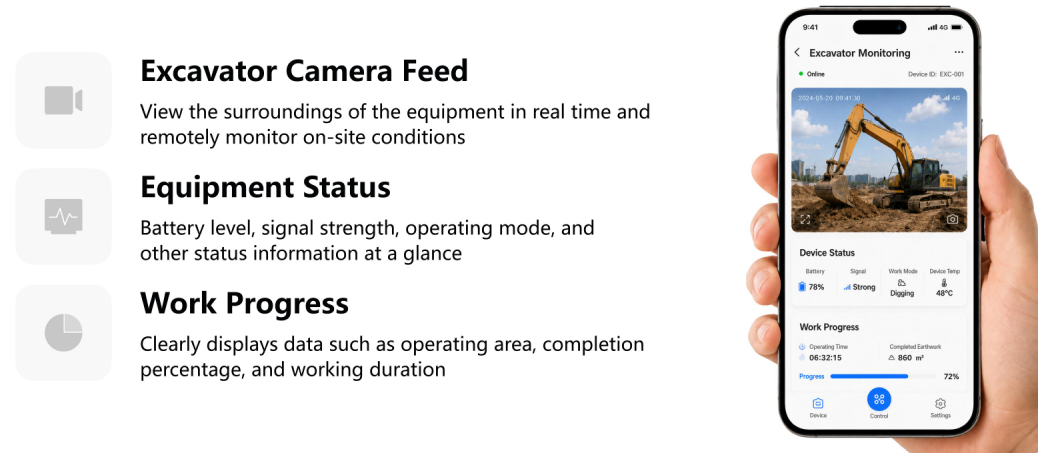
02 Multi-Terminal Display Expansion



03 Remote Start/Stop for Excavator



04 4G Cloud Upload, Mobile App for Online Viewing





SPECIFICATIONS

ADS-Lite

Cameras	
Quantity	supports up to 4 cameras
Lens	field of view (FOV) supports 90—130 degrees
Image sensor	1/2.9" 2-megapixel HD
Video resolution	1920*1080@60fps
Video format	supports H.264/H.265 encoding, 80 ms ultra-low encoding/decoding latency
Video bitrate	adjustable from 0.1 M to 8 Mbps
Electrical protection	lightning protection and electrostatic discharge (ESD) protection
Operating temperature	−20°C~70°C

GNSS Satellite Positioning (Base-Rover Mode)

Positioning accuracy	horizontal: 0.8 cm + 1 ppm vertical: 1.5 cm + 1 ppm
Cold start time	< 20 s
Operating modes	DBS B1/B2/B3/B1C/B2a/B2b* GPS L1C/A,L2P(Y)/L2C/L5 GLONASS L1/L2 Galileo E1/E5a/E5b/E6* QZSS L1,L2/L5/L6*
Maximum data update rate	50 Hz
Tracking channels number	1408
Operating temperature	−40°C~85°C

Mower Control Core TPMU	
Wireless Communication	4G Cat.1 communication module (supports all networks)
Ethernet Switching	8-port industrial Ethernet switch function 4 × Gigabit Ethernet ports (RJ45, 10/100/1000 M auto-negotiation) 4 × 100 M non-standard POE power supply ports (48 V, total power ≤ 120 W)
Bus and Serial Ports	2 × CAN buses (CAN 2.0 B, compatible with SAE J1939) 3 × UART serial ports (3.3 V / 5 V level selectable) 1 × RS-485 interface (half-duplex, with ESD protection)
Control and Acquisition	8 × PWM inputs (adjustable frequency, supports duty-cycle acquisition) 8 × PWM outputs (drive capability to be specified according to actual load, e.g. ≥ 500 mA) 10 × relay switching outputs (dry-contact output, contact capacity to be specified, e.g. 30 V/5 A or 220 V/5 A)

Human-Machine Interaction and Warning

Keyless start/stop	supports PKE/RFID proximity sensing start
High-decibel alarm	≥110 dB, buzzer or tone adjustable

SPECIFICATIONS

Data and Video Transmission

Dual-core ARM CPU	
Standard	Complies with IEEE 802.11a/g/n wireless network protocols
Operating Frequency	2400 ~ 2507MHz / 5.15 ~ 5.85GHz
Maximum Transmit Power	24dBm (FCC)
Maximum Transmission Distance	>1 km (omnidirectional antenna), >20 km (directional antenna)
Encryption Algorithm	WPA2
Network Topology	Supports point-to-point, point-to-multipoint, point-to-point relay, and MESH networking
FEC Forward Error Correction Algorithm	LDPC
Maximum Transmission Bandwidth	80Mbps
MIMO	2 × 2 MIMO, dual transmit and dual receive
Operating Temperature	−40~80°

WiFi

Wi-Fi Standard	IEEE 802.11 a/b/g/n/ac (Wi-Fi 5)
Output Power (2.4G)	+14 dBm ±2 dB
Frequency Band	2.4 GHz + 5 GHz (dual-band)
Maximum Rate	433.3 Mbps (5 GHz, 80 MHz bandwidth, 1 × 1 theoretical peak)

Bluetooth

Bluetooth Standard	Bluetooth 5.0 (supports BLE)
Output Power (BLE)	+8 dBm ±2 dB
Operating Frequency	2.402 GHz ~ 2.480 GHz

Aicon-Lite Remote Controller

SoC Specifications	CPU: octa-core 64-bit processor (4 × Cortex-A72 + 4 × Cortex-A53), maximum frequency 1.6 GHz NPU: 6 TOPS, supports local private deployment of AI algorithms Memory and storage: LPDDR4 4 GB + eMMC 64 GB System: Android 14
Audio and Video Output	1 * HDMI2.1 (3840 * 2160@120Hz) 1 * DP1.4 (3840 * 2160@120Hz) 1 × SAI (4T/4R), supports sampling rates up to 192 KHz
Communication	Supports 4G Cat.4 module Supports Gigabit Ethernet wired communication Supports USB3.2 Gen1 Type-C interface (supports DP Alt Mode external display)
Battery	Charging method: supports Type-C PD fast-charging input Battery rating: 12 V / 6000 mAh Battery type: rechargeable lithium-ion battery pack Nominal voltage: 11.1 V Charge limit voltage: 12.6 V Discharge cut-off voltage: 8.4 V — 9.0 V Weight: approximately 320 g BMS protection functions: overcharge protection, over-discharge protection, overcurrent protection, short-circuit protection, temperature protection (NTC)
Control and Interaction	Display: 13.3-inch HD 1080p capacitive touchscreen Unlocking method: NFC card unlocking Drop detection: IMU-based drop detection (6-axis accelerometer + gyroscope) Physical buttons: – 1 × Power button – 2 × industrial-grade omnidirectional 5-axis joysticks – 6 × IP65 waterproof toggle switches – 1 × emergency stop button
Operating Temperature	−40°C ~ 85°C
Dimensions	265mm 167mm 165mm
Weight	1.8 kg