贝塔智慧

Who We Are

We are a leading provider autonomous driving solutions based on the Apollo open-source platform. Our mission is to develop efficient, safe, and reliable autonomous driving systems, with the vision of becoming an engine for enhancing industry efficiency.

Contact Us

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Integrated Autonomous Driving Campus Kit

A pre-integrated, tested hardware-software solution designed to accelerate prototyping, validation, and limited deployment of autonomous driving applications.

Key Hardware Components

Autonomous Driving Domain Controller

Category	Specification
Compute Core	NVIDIA Jetson ORIN AGX 32G
AI Performance	200 TOPS
Memory	32GB LPDDR5, 204.8GB/s
Storage	128GB NVMe SSD
Core Interfaces	2xCANFD(CAN2.0B compatible); 8xGMSL2(for cameras); 4x LiDAR ports(Ethernet/GMSL); 1x10G Ethernet
Auxiliary Interfaces	1xUSB3.0; 3xUART(configurable RS232/485); GPIOs
Built-in Features	Hardware-level precision time sync, Watchdog, optional safety MCU
Power Input	9-36V DC, with reverse/over-voltage protection
Power Consumption	80W
Operating Temp.	-20℃ to +60℃
Cooling Method	Passive cooling & Smart fan
IP Rating	IP65

Standard Sensor Suite

Sensor Type	Specification
Primary LiDAR	16-line mechanical spinning; 360 °horizontal FOV; 30 °vertical FOV; ≥120m range; ±3cm accuracy; IP67
Surround Camera System	4xAutomotive-grade wide-angle cameras; ≥120°FOV (190 °fisheye optional); 1920x1080 resolution; ≥30fps; ≥100dB HDR; IP67
GNSS+IMU	Integrated RTK-GNSS receiver @ industrial-grade IMU; supports GPS/GLONASS/BeiDou/Galileo; ≥100Hz update rate; UART/CAN interfaces
Cables & Accessories	Standard wiring harness, GNSS antenna, and other essentials included

Optional Hardware Configuration

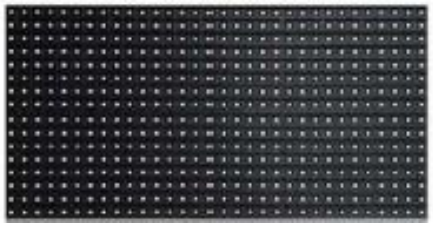
Skateboard Chassis

Screen

Millimeter Wave Radar

Camera

LED Screen



Software Platform and Algorithm Stack

Category	Specification
Operating System	Ubuntu 20.04 / 22.04 LTS
Middleware	Apollo Cyber RT
Perception	Supports Lidar-Camera early/late fusion for 3D object detection and tracking (vehicles, pedestrians, bikes)
Localization	High-precision pose estimation using fusion of RTK-GNSS, IMU, and Lidar-SLAM
Planning	Point-to-point navigation with HD maps; basic static obstacle avoidance and velocity planning
Control	Lateral/longitudinal control using PID/LQR; supports CAN-based interface for chassis actuation
Calibration Tools	Online/offline sensor calibration utilities
HMI	Basic interfaces for task dispatch and system status monitoring
SDK & APIs	C++/Python SDK with message subscription, data recording, control command support; includes docs and sample code
Visualization	Real-time data visualization based on Dreamview

Services and Support

Documentation: Complete documentation is provided, including the product specification sheet, user manual, quick start guide, and API/SDK reference materials.

Remote Technical Support: One month of free remote technical support is offered from the date of purchase, including support via email, phone, or online meetings. This support covers kit installation, configuration, and basic usage issues. For details, please refer to the *Technical Support Service Terms*.

Deployment

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