

Electrical Parameters	Power Consumption	Max. system power: 14-30 W; operating voltage: DC 12-36 V.
	Power Protection	Surge protection, reverse-polarity protection, low-voltage protection, short-circuit overload protection.
Video Output Interfaces	AHD Video Output (Surround View)	Supported. Standard GX12-4P aviation connector; AHD 25/720P or 1080P output.
	CVBS Video Output (2)	Supported. Two standard GX12-4P aviation connectors: one 360° surround-view output and one DVR output.
	HDMI Video Output (DVR)	Supported. In-vehicle HDMI video interface, built-in DC 12 V regulated power supply, serial communication.
	VGA Video Output (DVR)	Supported. DB15 (female) VGA video interface, built-in DC 12 V regulated power supply, serial communication.
Video Input Interface	AHD Video Input	Supports multiple camera combinations: 1080P/720P/D1 video input; 8-channel camera mode (4 normal video + 4 360° video); 12-channel camera mode (4 normal video + 4 normal video + 4 360° video).
AI Blind-Zone Warning [Optional]	AI Visual Warning Function	360° surround-view system with built-in AI vision algorithm; supports 360 blind-zone detection. The system recognizes real-time hazards around the vehicle (pedestrians, non-motor vehicles, etc.) and provides image + light + sound three-in-one alerts to the driver. It can also trigger an external audible/visual alarm to warn people or non-motor vehicles entering the blind zone, improving driving safety.
Ultrasonic Radar / Radar Host [Optional]	Radar Warning Function	16-probe ultrasonic radar system developed in-house. Combined with vehicle-speed sensors and proprietary algorithms, it communicates with the 360 panoramic system in real time. Radar information is displayed intuitively on the 360 host and supports enhanced right-side blind-zone (BSD) detection, lane-change assist (LCA), and linked audible/visual blind-zone alarms.
	Radar Host	One host can connect 4 radar probes and GX12 aviation cables. One radar host communicates with one 360 host. Radar function is supported by the 360 host; the radar host must be purchased separately and can be connected directly for use.
	Detection Distance	Four-direction detection distance: approx. 2.5 m. In total-failure response, all distances are 0.35 m.
	Power Parameters	Supply voltage: DC 12-36 V; maximum power consumption: 0.2 W.
	Waterproof Rating	System waterproof rating: IP67.
	Radar Functions	For vehicle blind-zone (BSD), lane-change assist (LCA), and parking-assist functions. Combined with proprietary algorithms and protocols to support various vehicle application scenarios.
	Radar Interface	20P vehicle connector (25413); four radar interfaces (4 × GX12-4P aviation connectors); one audible/visual alarm interface (1 × GX12-4P aviation male connector); one buzzer interface (3P BMW connector); one enable-switch interface (3P BMW connector).
CAN Communication	Functional Features	High-speed CAN bus transceiver, compliant with ISO 11898; low-power management and network wake-up functions.
Storage Functions	MSATA SSD Storage	Supports MINI PCIe SSD storage, capacity 128-2 TB.
	SD Card Storage	Standard SD card storage; supports 8-256 GB.
Audible/Visual Alarm [Optional]	Specifications	Audible/visual alarm powered by wide-voltage DC supply (DC 12-33 V / 3-5 W). Waterproof rating: IP67. Volume within 1 m: ≤105 dB; 8 adjustable volume levels; RS485 communication; supports up to 7 selectable voice prompts.
	Product Features	Controlled by the 360 host through communication. Functions include: 1. Left turn: "Vehicle turning left, please pay attention." 2. Right turn: "Vehicle turning right, please pay attention." 3. Reversing: "Vehicle reversing, please pay attention." 4. Blind-zone alert: "Please keep away from the blind zone; do not approach." 5. Vehicle starting: "Vehicle starting, please pay attention to safety." 6. Low-speed proximity alert: "Large vehicle approaching, please pay attention to safety." 7. Vehicle stopped: enter silent mode and do not broadcast. Dual-flash mode: no broadcast. When speed exceeds 25 km/h, turn signals do not trigger an alarm. Daytime broadcast volume: 100%; nighttime mode: 75%.

Physical Specifications	Product Dimensions	L × W × H = 135 × 178 × 50 mm.
	Product Weight	Host weight: 0.4 kg; complete unit: 2.9-4 kg (difference depends on cable length).
4G + GPS Functions	4G Network Communication	Optional in-house IoT module; supports 4G network communication.
	GPS Positioning	Optional in-house IoT module; supports GPS positioning.
	SIM Card Type	NANO SIM; supports IoT SIM cards and real-name registration cards.
	Antenna Type	Two antenna ports: one SIM/4G antenna and one GPS antenna.
	Module Type	MINI PCIe interface. This module is the communication application integrating MCU + 4G + GPS developed in-house.
	Supported Functions	Supports remote real-time video viewing, snapshots, real-time vehicle positioning, driving-track playback, vibration/low-voltage alarms, electronic geofence, and other functions.
Camera Parameters	Camera Voltage	DC 8-16 V.
	Camera Power	Single camera: 0.5-1 W.
	Resolution	AHD 1920 × 1080P.
	Operating / Storage Temperature	Operating temperature: -30°C to +70°C; storage temperature: -40°C to +85°C.
	Video Frame Rate	Capture frame rate: 30 FPS.
	Waterproof Rating	IP68.
	Low Illumination	0.01 Lux.
	Vibration / Shock	Complies with MIL-STD-810F, Method 516.5.
Recording Parameters	Video Format	H.264 / H.265.
	Recording Resolution	4-channel combined 1920 × 1080P.
	File Size	Approx. 1.2 GB/hour.
Host Parameters	IP Protection Rating	IP51.
	Operating Temperature	-20°C to +70°C.
	Storage Temperature	-40°C to +80°C.
	Vibration / Shock	Complies with MIL-STD-810F, Method 516.5.
	Housing Material	Aluminum alloy housing with surface oxidation treatment.