

Safety helmet positioning terminal

The safety helmet positioning terminal is an intelligent electronic device designed for personnel attendance management, supporting integrated indoor and outdoor positioning, and enables efficient work management for field workers.

Supports SOS emergency calls and TTS voice announcements.



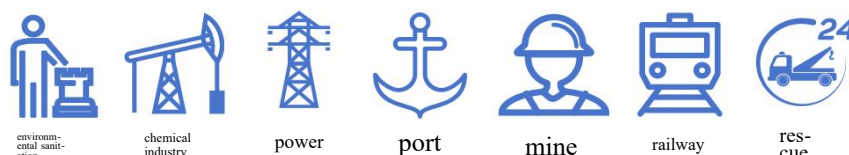
Supports single-Baidu-Satellite single-frequency and dual-frequency positioning; supports RTK high-precision dual-mode dual-frequency positioning; supports single-Baidu-Satellite dual-frequency positioning; supports 5G low-power indoor/outdoor positioning; supports JT808 protocol integration and private protocol connectivity for development.

Product Features



Multi-location; Trajectory playback; real-time positioning; safety fence; Emergency call; TTS voice announcement; Deep waterproof

Application Scenarios



Technical Parameter

Communication Features	4G	LTE-TDD: B34/B38/B39/B40/B41
		LTE-FDD:B1/B3/B5/B8
Locate function	APN	Supports APN-based private network communication
	LBS fixed position	Support (requires platform-side support)
	GNSS fixed position	Supports BDS + GPS + Galileo + QZSS positioning (default single-frequency, optional dual-frequency)
	Single BDS Positioning	Support (optional single-band or dual-band)
	RTK high accuracy positioning	Supports single BDS dual-frequency and BDS+GPS dual-mode dual-frequency (optional)
	Bluetooth Location Service	Supports indoor Bluetooth positioning (optional)
	WIFI fixed position	Supports indoor WIFI positioning (requires platform support)
	5G Low-power Positioning	Supports indoor and outdoor positioning (optional)
	Indoor positioning accuracy	Approximately 300 m (affected by Wi-Fi router and base station signal strength, as well as floor height)
	Outdoor Outdoor Positioning Accuracy	10cm-10m
Electro-acoustic Interaction	Cold boot	< 30s
	Positioning Frequency	1s, 2s, 5s, 10s, 15s, 30s, 60s, 120s, etc.
	PDA	Supports Bluetooth
	Vibration Sensing	Supports an acceleration sensor to automatically detect a stationary state and put the device into sleep mode
	Lampshade	TTS Voice Function: Supports TTS voice playback, allowing the platform to directly send voice commands to the helmet terminal.
	LED lamp	Three items, representing power consumption, communication, and satellite positioning respectively
	Key	Three buttons: Power button, Function button, and SOS button
	USB Port	4-pin POGO connector for 5V/1A charging and firmware upgrade debugging
	SIM card slot	Features a built-in rotating cover-style Nano-SIM card slot compatible with 5×6 chip cards
	Battery capacity	3.8V,1000mAh Pure Cobalt High-Voltage High-Performance Battery
Electrical character	Charging Time	Charging time <1.0 hours
	Charging Method	4-pin POGOPIN (5V/1A charging)
	Working Current	Current <= 60 mA, Standby current <= 5 μA
	Duration of flight	≥ 15 hours (with a reporting frequency of 15 seconds maintained continuously)
Software function	JT808 Protocol	Supports JT808 protocol for uploading positioning results and status data
	Private Protocol	Supports custom development and integration of private protocols
	Ntrip protocol	Supports the NTRIP protocol and achieves high-precision positioning via CORS differential service.
Physical characteristics	Outline dimension	74.8mm*40mm*15.7mm
	Weight	Net weight: 45 g
	Material quality	PC+ABS
	Wearing Method	Device case with 3M adhesive backing
Environmental suitability	Working temperature	-20°C to 65°C (Battery performance decreases below 0°C)
	Storage Temperature	-40°C ~ 80°C
	Working Humidity	No condensation at 10%–85% RH
	IP grade	IP67
Attestation	3C Certification	Can work with customers
	Network Authentication	Can work with customers
	Explosion-proof Certification	Can work with customers