TKMPS1E-4G

4G Smart Safety Helmet



Model Number	TKMPS1E-4G
Basic Information	
Processor	ASR8601
Operating System	Android 8
Screen Size	No screen
Standard Battery Capacity	4200mAh
Optional Upgraded Battery Capacity	4600mAH
Charging Time	4hours
Continuous Recording Time	Approx. 10 hours
Standby Time	>300 hours without APP (subject to APP usage)

Image Stabilization	Not supported
Video Format	MP4
Encoding Format	H.264/H.265
Video Resolution	Up to 1080P(1920*1080)30FPS
Photo Format	JPEG
Speaker	1W
Onboard Memory	Standard 1GB+8GB, expandable up to 512GB
Rear Main Camera	4MP
Max Photo Resolution	Up to 48MP
Noise Reduction Module	Custom-supported
Lighting	
Laser Light	Supported for auxiliary imaging center locking and laser marking
Warning Light	Red & blue alarm light
Infrared Light	N/A
White Fill Light	Available
Interfaces	
Charging Port	Type-C
Headset Port	Type-C
G-Sensor	Supported
Vibration Motor	Supported
External Camera	Supported
Charging Method	Detachable battery for standalone direct charging
Power Adapter	5V-2A
USB Port	USB 2.0
Data Functions	
Sim/TF Card Slot	Single SIM + Single TF card
WIFI	WIFI5.8 a/b/g/n/ac
Bluetooth / 433	BT5.0 (BR/EDR + BLE); supports Bluetooth remote control, Bluetooth audio intercom, Bluetooth tag positioning, etc.
Positioning	BeiDou-only
Compass	Optional
Barometric Pressure Sensor	Supported
Temperature Sensor	Supported
Ambient Light Sensor	Supported
NFC	N/A
Helmet-removal Alarm	Detects helmet wearing status and triggers background alarm linkage
Encryption Card	Not supported
Other Network Functions	
Near-electricity Alarm	Voice warning alert when helmet approaches preset voltage levels (220V, 10kV, 35kV, 110kV). Function is optional.
Video Intercom	Supports one-way / two-way video intercom between body-worn camera and platform, as well as peer-to-peer one-way / two-way video intercom (requires integration of third-party software SDK).

Trunked Group Voice	Supports group intercom and peer-to-peer voice intercom.
Voice Broadcast	TTS voice broadcast supported.
Voice Control	Chinese-language only. Other languages require third-party voice algorithm integration or secondary development.
Face & License Plate Recognition	Supported
Network Bands	Asia-Europe bands LTE-FDD: B1/B3/B5/B8 LTE-TDD: B34/B38/B39/B40/B41 other bands optional.
Platform Management Software	Supports real-time preview, real-time positioning, track playback, intercom, audio monitoring, remote command issuance, etc. Supports API calling for secondary development, independent platform deployment or independent customized secondary development.
On-screen Text Overlay	Supports overlay of time, device ID, officer ID, location and speed information; Chinese characters supported.
Platform Integration	Compatible with JT/T808, GB/T28181, RTMP, RTSP, ONVIF and other mainstream protocols for audio-video streaming, intercom, positioning and device information uploading.
Basic Device Functions	
Video Pre-recording	Supported
USB Disk Mode	Driver mode: Enter removable disk mode via PC client software after connecting to computer. Driver-free mode: Directly enter removable disk mode after connecting to computer. Two modes are optional.
Hot-swap Battery Recording	Not supported (power loss upon battery replacement)
Key File Marking	Press designated key to mark important video files during recording.
Menu Languages	Default Simplified Chinese / English; additional languages can be customized.
Continuous Shooting	Supports burst shooting of more than 10 photos at one time.
Impact Alarm	Built-in G-sensor triggers automatic recording and alarm upon drop or collision; backend linkage available with 4G function.
Password Protection	Supported
Video Encryption	Supports AES256-SHA1-SHA2 encryption
Fill Light	White-LED auxiliary lighting for dark environments.
Built-in Backup Battery	N/A (power off on battery replacement)
Snapshot During Recording	Capture independent photos by pressing shutter during video recording.
Data Security Management	Multi-level permission control. Basic permission allows only playback of videos, photos and audio; deletion and sensitive setting modification are prohibited. Password verification is required for local sensitive configuration. File copy, modification and deletion are available only after PC connection.
Stealth Recording Mode	Supports disabling indicator lights and sound prompts.
Secure Mode	Only basic functions (recording, photo, audio) are available; password required to access settings and playback interfaces.
Auto Overwrite	Auto overwrite / disable overwrite selectable
Helmet Gesture Control	Wave hand close to lighting module to turn light on/off.
Helmet Strobe Warning Light	Red-blue alternating flashing warning light at rear of helmet.
Others	

Ingress Protection & Drop Resistance	IP54, 2-meter drop resistance
Low-temperature Compatibility	Low-temperature batteries required for testing and cold-region deployment. Low-temperature battery delivers ≥2-hour runtime at -30℃. Standard battery is for ambient-temperature use only and differs in energy density and operating environment from low-temperature batteries.
Housing Process	Single-color injection molding
Storage Relative Humidity	63%(30℃)
Storage Temperature	-40 ~ 60℃
Operating Relative Humidity	40% ~ 80%
Operating Temperature	-20 ~ 55℃
Dimensions & Weight	
Length (mm)	289mm
Height (mm)	159mm
Thickness (mm)	159mm
Weight (g)	Approx.587g