

4G Smart Body Worn Camera

Model: C310E

Product Datasheet

Version 2.3



Product brief introduction

C310E is an innovatively developed 4G smart body worn camera, it is an upgraded version of C310. This BWC supports full internet network connectivity including 4G/Wi-Fi/AP private network. It is equipped with a visual dispatch management platform and can realize remote live video broadcast, cluster intercom, real-time location, wireless image transmission, etc.

C310E uses Android 12 operating system, a high-performance 8-core processor, a 3.1-inch touch screen, and three front and rear cameras. It has the functional advantages of smooth operation, safe and stable operation, and fast operation.

1. Functional advantages

- 1.1 **Android system:** 8-core 2.0GHz high-performance and low-power processor, Android 12 smart operating system;
- 1.2 **Touch screen:** Equipped with 3.1-inch narrow-bezel IPS high-definition display, multi-point capacitive touch screen, and supports glove mode;
- 1.3 **Customized lens:** 3 front and rear cameras, ultra-high-definition 2K recording, AF auto-focus, high-definition lossless shooting at any angle;
- 1.4 **Video compression:** H.264/H.265 high-definition encoding;
- ` **Infrared night vision:** The photosensitive sensor automatically switches to infrared mode, and the outline is clear within 15 meters;
- 1.5 **Full connectivity:** 4G cat7 signal, dual-band Wifi signal, AP private network, etc.;
- 1.6 **Gravity sensor:** After the law enforcement instrument is hit by a collision or falls to the ground, it can trigger the acceleration sensor and start automatic recording;
- 1.7 **Satellite positioning:** built-in GPS/ Bidou /GLONASS accurate real-time positioning, and equipped with geo-fence and track & trace, recording and search functions; also support indoor location by LBS
- 1.8 **Software platform:** Equipped with a visual scheduling management platform, supporting 28181 International, WebRTC and more functions can be realized through the 4G platform:
 - A. **Video live broadcast:** The system background can directly access the real-time high-definition video of the law enforcement instrument, with small delay and high speed, which is helpful for the command center to grasp the dynamics ahead;
 - B. **Wireless file upload: audio and video data** can be remotely uploaded to the server through network signals;
 - C. **Cluster intercom:** Extra-large PTT button, 500,000 times press lifespan, supports terminal-to-terminal, terminal-to-group, and temporary group intercom

through geofencing.

D. **Mobile APP direct connection:** connect to law enforcement instruments through smart terminals such as mobile phones and tablets;

E. **Management functions:** attendance management, system logs, big data analysis, equipment management, user management, remote upgrade, etc.;

F. **Information delivery:** text or picture information can be directly delivered to the terminal

G. **SOS function:** SOS one-click alarm to alert backend staff and group members.

H. **System compatibility:** Web applications, PC applications, Android/iOS applications, etc.

- 1.9 **Battery:** 3500mAh rechargeable lithium battery, single battery charging ≤ 2 hours, single battery can video record continuously for 10 hours, turn on 4G video live streaming for more than 6 hours, when replacing the battery, it will be powered within 5 minutes by backup battery to ensure complete evidence collection, under full charged battery flight mode standby time can reach more than 1000 hours.
- 1.10 **Dedicated Single port charging bay:** equipped with a dedicated single port charging bay, which can upload history data through USB or WiFi while charging.
- 1.11 **Protection:** Two-color mold process, IP68 level, waterproof and dustproof, can survive a total of 30 drops from any 6 sides within 2 meters without damage;
- 1.12 **External devices:** Supports external USB spy cameras, Bluetooth intercom headset cables and more.

2. Key Description



3. Product specification

Basic parameters	
Main processor	MTK MT6769 12nm 8-core processor 2.0GHz high-speed and low-power processor
Operating system	Android 12 operating system
Video compression	H.264/H.265 HD encoding
Encryption	Real time AES256 encrypted video audio file into BWC local storage
Lens module	Front Full-frame camera: OV4689 F/NO=2.2 ; field of view D=128 ° H=119 ° Distortion <9% Optional Full-frame starlight night vision: SC230AI F/NO=1.88 Field of view D=135 ° H= 110 ° Distortion <18% Front secondary Auto Focus camera: Sony 13M; Rear Full-frame camera: Gekowei 5M ;
Memory	4GB RAM+64GB Flash standard configuration Optional (4GB RAM+256 Flash or 4GB RAM+512GB Flash)
Display / touch screen	3.1-inch IPS screen 480 (RGB) *800, narrow bezel + multi-points touch screen
Sound	15*25mm 1.5W BOX high power waterproof speaker
Microphone	Dual -Mic with noise canceling
I/O interface	USB TYPE C interface, can be connected to external cameras, video output cables, headphone cables, etc.
Location	Built-in GLONASS/GPS combined positioning + AGPS, supports Beidou/ Galileo Support indoor location through LBS
Photosensitive sensor	Standard configuration, used to detect ambient light and control the automatic turning on and off of infrared lights.
Motion sensor	Acceleration sensor (standard), supports gyroscope (optional)
Storage card	Built-in MicroSD card slot, support maximum 512GB MicroSD card
4G/3G Band	4G Frequency Band:
	LTE FDD: B1/B3/B5/B8,
	Compatible
	B2/B4/B7/B20/B28
	TD-LTE:
	B34/B38/B39/B40/B41
TD-SCDMA: B34/B39	
3G Frequency Band:	

	WCDMA: B1/B2/B5/B8
	GSM Frequency Band:
	B2 1900MHz; B3 1800 MHz; B5 850 MHz; B8 900MHz
Wi-Fi	Support 802.11b/g/ac dual-band Wi-Fi, 2.4GHz+5GHz
Bluetooth /NFC	Built-in Bluetooth 5.0, standard NFC, can read ID card information
Function parameter	
Video resolution	2048*1024/30FPS, 1920*1080/30FPS, 1280*720/30FPS, 640*480/30FPS
Photo pixels	8 million, 13 million, 32 million, 42 million
Starlight night view	Support starlight to record/view colorful video in dark night
Infrared night vision	70% of the effective area within the viewing angle range of 5 meters, and the viewing distance is 15 meters
Torch	Support strong LED torch
Laser Pointer	Support laser pointer
Video Pre-recording function	Support 90 seconds pre-recording and video capture
Camera function	Supports continuous shooting, automatic white balance, 8x digital zoom
Distortion correction	Horizontal 119 degrees, vertical correction in both directions, distortion less than 9%
Local playback	Supports local playback, and can adjust the progress bar through the touch screen to play at will
Important Event mark	Documents recorded by BWC cameras can be highlighted by this important event mark
Overlay information	Device serial number + police information, year, month, day, hour, minute and second, location information embedded into video
Remote control function	Multiple remote control recording methods, remote control through mobile APP, voice remote control
Battery	
Battery	Replaceable high voltage battery: 3500mAh
Charging method	Can be charged by AC Adapter /PC-USB auxiliary charging / car USB charging, with fast charging function, 5V/2A charging
Built-in battery	Built-in small backup battery 50mAh, support battery replacement without shutting down for continue working for 5 minutes

Video Record time	The default working time of a single battery can last for more than 10 hours of continuous video recording, and if turning on 4G live video streaming, BWC battery can last for more than 6 hours of continuous video recording time. Airplane mode can standby for 1000 hours, battery fully charging time \leq 2 hours
Energy saving mode	Automatically shut down the screen and enter power saving mode if no operation is performed within 3 minutes
Physical Parameters	
Appearance craftsmanship	Two-color mold technology, soft rubber buttons, with button movement limitation design
Mechanical specifications	Dimension: 96mm*60mm*20.5mm Weight: 188g
Protection level	IP68, can survive a total of 30 drops from any 6 surfaces within 2 meters without damage.
ESD electrostatic	Contact \pm 8KV, air \pm 10KV
Working environment	Working Temperature: -30 to 55 °C, relative humidity: 40% to 80%
Storage environment	Storage Temperature: -40 to 60 °C, relative humidity: 93% (40 °C)

Disclaimer: Since product are constantly upgraded, if there is any difference between the above content and the actual product, please refer to the actual product. This information is for reference only.

4. Accessories

Bluetooth headset	Support long standby time with noise cancellation
Single Port Charging Bay	Support charging both BWC and Spare battery together, also can support data transfer through USB port with password protection
External USB Camera	Support external HD 720p USB Type-C interface spy camera for covert operation
Spare Battery	Additional Spare battery
AC-DC charger	AC-DC charger with USB type-C interface, support 5V/2A fast charging

5. Packing list

SN	Product Item	QTY	Unit	Remark
1	4G BWC (Optional: internal MicroSD card 32/64/128/256/512GB)	1	Unit	
2	Power adapter 5V/2A Charging	1	Unit	
3	Dedicated charging base	1	Unit	Optional
4	Removable backup battery	1	Piece	
5	USB Data cable	1	Piece	

6	Shoulder / Pocket clip	1	Unit	
7	User's Guide	1	Piece	
8	Packaging Carton box (No logo)	1	Box	

6. Software Features List

Web based Client	Support Web Based Client Application to show all BWC live stream video, location, and history video files, support both GPS tracking history search & playback and BWC history video search & playback
Auto History upload through Wi-Fi	Auto upload all history videos/photos from BWC through Wi-Fi to cloud storage
Real time Communication	Support very low latency with WebRTC P2P communication protocol
3rd party software Integration	Provide RTSP, 28182 protocol support, and Web API, Restful API, WebRTC API to share real time live stream video, GPS location data etc. to 3 rd party software platform

BWC Model C310-E Unique Features List

SN	Compare Item	C310-E	Remarks
1	CPU	CPU MTK MT6769 12nm 8-core processor 2.0GHz from Taiwan	Most competitors still using old version CPU & MCU
2	OS	Android 12	Most competitors using Android 9 or Embedded Linux
3	Encryption	Support AES256 encryption on each video files	Most competitors use password protect whole MicroSD card with lower encryption method, not AES256
4	USB	USB Type C port for charging /data	Most competitors using Mini USB port now
5	Display Screen	3.1 inches IPS multiple points touchscreens, high resolution 480 (RGB) *800, narrow bezel	Most competitors using 2.8- or 2.5-inches screen
6	Removable Battery	3200mAh	Most competitors main battery below 3000mAh
7	Built-in backup battery	Allows for uninterruptible power supply for 5 minutes during battery replacement	Most competitors supply power from small internal battery less than 2 minutes
8	Pre-recording	Support 90 seconds pre-recording before event	Most competitors only can support max 30 seconds
9	Photosensitive sensor	Standard configuration, used to detect ambient light and control the automatic turning on and off infrared lights.	Most competitors do not have
10	Motion sensor	Acceleration sensor (standard), supports gyroscope (optional)	Most competitors do not have
11	Digital Zoom	Support 8x Digital Zoom	Most competitors cannot support
12	Fast Charging	Support fast charging	Most competitors cannot support
13	IR LED	70% of the effective area within the viewing angle range of 5 meters, and the viewing distance is 15 meters	Most competitors IR only cover 2 meters
14	Torch Light	Strong torch light	

15	Starlight	Support starlight, will show video in colour image even in dark night	Most competitors cannot support starlight
16	Laser Pointer	Supported	Most competitors cannot support
17	Flashlight	Supported	Most competitors cannot support
18	2 nd Len	2 nd Len for Macro Len photography of ID, driver License and other documents	Most competitors cannot support
19	Video Compression	Support both H.264/H.265	Most competitors cannot support H.265
20	Speaker	15*25mm 1.5W BOX high power waterproof speaker	Most competitors only support 1W speaker, also not waterproof
21	Need Docking station or cabinet	BWC will auto upload all history video files to backend VMS server storage once BWC enter valid Wi-Fi zone, no need any docking station or cabinet	Most competitors cannot support
22	Client Application	Support web-based application to view live video, GPS real time tracking, or retrieve back video files directly from BWC, no need install any Windows application, and no need to upgrade Windows application for every working station, easy and quick maintenance of software Support browsers like Edge/Chrome/Safari for all kinds of OS	Most competitors provide local Windows application only, need install locally and upgrade manually for every single PC one by one regularly for every new version application
23	Protocol	Support WebRTC protocol to do P2P video live streaming/conference call. More specifically, WebRTC is the lowest-latency streaming format around with sub-500-millisecond video delivery. Native browser support also eliminates the need for end users to download clunky apps to view streams delivered with it.	Most competitors cannot support WebRTC protocol

24	Location	Support both indoor LBS location and outdoor GPS/Beidou location report	Most competitors cannot support indoor location, cannot support Beidou
26	Snapshot	Supports continuous shooting, automatic white balance, 8x digital zoom	Most competitors cannot support continuous shooting
27	Walkie Talkie	Support PTT , send/receive text message/voice video conference / audio clip sharing / location sharing in many different working groups	Most competitors cannot support
28	Data Protection	BWC data cannot be detected or transferred through USB port from BWC to any PC	Most competitors cannot support
29	Security	Passed VAPT test before. GPS, live video stream and file upload transfer to cloud and its storage using encrypted protocol	Most competitors cannot support
30	Customization	Can put customer's own logo on both hardware and software	Most competitors cannot support
31	Supply Chain	Stable supply 500 units per day while 3 months after PO confirm, all using Taiwan made components parts	Most competitors are China companies, not Singapore company
33	Open Source	Can provide Open-source code for web client application	Most competitors cannot provide
34	3 rd Platform API	Provide Web API, websocket API, Restful API to share all data to 3 rd party platform	Most competitors cannot provide
35	Auto App upgrade from backend cloud	The Android BWC MCP app can be automatically upgraded to newer version from cloud backend	Most competitors cannot support