hp

f900

Car Camcorder
User Manual

Contents

About this Guide

The content in this document is for information purpose and is subject to change without prior notice. We have made every effort to ensure that this User Guide is accurate and complete.
However, no liability is assumed for any errors or omissions that may have occurred.
The manufacturer reserves the right to change the technical specifications without prior notice.

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generate, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

WEEE Notice

Disposal of Waste Electrical and Electronic Equipment and/or Battery by users in private households in the European Union

This symbol on the product or on the packaging indicates that this cannot be disposed of as a household waste. You must dispose of your waste equipment and/or battery by handling it over to the applicable take-back scheme for the recycling of electrical and electronic equipment and/or battery. For more information about recycling of this equipment and/or battery, please contact your city office, the shop where you purchased the equipment or your household waste disposal service. The recycling of materials will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and environment.

WEEE

Battery

CE Regulatory Notice

The product herewith complies with the requirements of the Low Voltage Directive 2014/35/EU, the EMC Directive 2014/30/EU and the RoHS Directive 2011/65/EU.

Notes on Installation

1. Please measure the front windshield viewing area, make sure not to block driver's front view, install the camcorder below the rearview mirror (the central, higher right position of the front windshield). And we recommend that the sky and the land occupied by the screen 50%, fix the car holder and then adjust the camcorder so that the lane is aligned with the screen.

2. Make sure that the lens is within the wiping range of the windscreen wiper to ensure a clear view even when it rains.

3. Do not touch the lens with your fingers. Finger grease may be left on the lens and will result in unclear videos or pictures. Clean the lens on a regular basis.

4. Do not install the camcorder on a tinted window. Doing so may damage the tint film.

5. Make sure that the installation position is not hindered by the tinted window.
6. This product is suitable for light windshield or light color heat-resistant film windows , it will affect video quality if install it on the dark windows or dark heat-resistant film windows.
7. Use the products of the attached power charger only, please do not use other brand power charger.
8. The camcorder is built-in super capacitor. After start the car engine, please wait a few seconds for charging the camcorder, and then the camcorder will automatically power on and start recording.

Caution

❖ Due to local laws and vehicles safety considerations, do not operate the camcorder while driving.

❖ Set up time and date accurately before you use this camcorder.

❖ The firmware function in the camcorder is for reference only, drivers are advised to exercise discretion based on actual road conditions.

❖ This product is used only for non-commercial use, within the maximum limits permitted by applicable law. We do not take any responsibilities for the loss of use of the product.

❖ This camcorder gets warm when in use; this is normal.

❖ Improper use or operation of the product may result in damage of the product or its accessories and void the warranty.

❖ HP Inc. is NOT responsible for the loss of any data/content during operation.

Before you start using the product, it is assumed that you agree to the above statement.

1 Introduction

Thank you for purchasing this advanced Car Camcorder. This product is
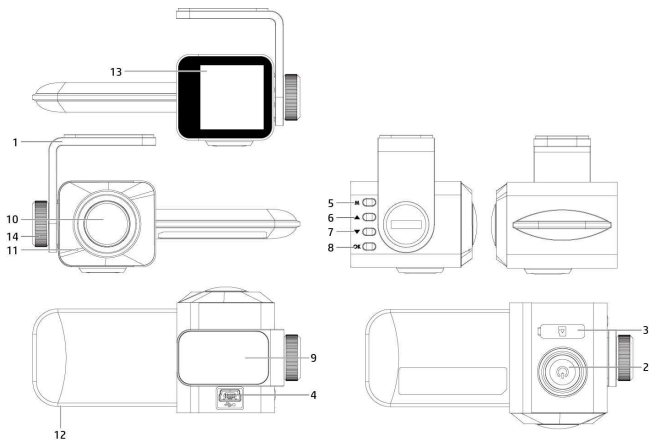specifically designed for real time video recording when driving.

1.1 Features

- Full HD recording videos (1920x1080P@30fps)
- 1.3" TFT-LCD color screen
- Wide angle lens
- Collision Detection, when a collision is detected, the camcorder will
  automatically trigger the emergency recording
- Parking Mode
- Support SDHC class 10 and micro SD memory storage 16GB or
  above (support up to 32GB)
- Built-in super capacitor
- Delicate LED design

1.2 Package Contents

The package contains the following items. In case there is any missing or
damaged item, contact your dealer immediately.

Car Camcorder	Electrostatic Sticker	CD-ROM
Quick Start Guide	Car Adapter	

1.3 Product Overview

No.	Item
1	Bracket
2	Power
3	Memory Card Slot
4	USB / Power Connector
5	Menu / Back Button (📧 / ⏎)
6	Playback / Up Button (▶ / △)
7	Snapshot / Down Button (📷 / ▽)

No.	Item
8	Emergency Recording / Confirm Button (⚠ / ⊙⊠)
9	Speaker
10	Wide Angle Lens
11	Microphone
12	LED Indicator
13	LCD Panel
14	Knob

2 Getting Started

2.1 Storage Media

2.1.1 Insert the Memory Card

Insert memory card with the pins facing forward and the screen of the camcorder facing forward too, see the picture as below:
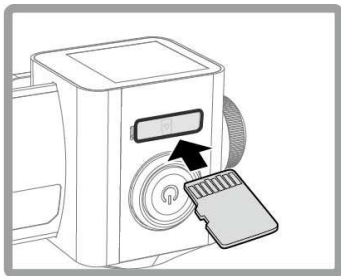
2.1.2 Remove the Memory Card

If the camcorder is power on, please power off first and wait for the procedure of switching off the camcorder completed before removing the memory card.

Note:
1 Do not remove or insert the memory card when the camcorder is turned on. This may damage the memory card.
2. Support SDHC class 10 and memory storage 16GB or above (support up to 32GB).
3. Please format the micro SD cards before the initial use. The formatted file type for this camcorder is FAT32 file.
4. Periodically format the microSD card (recommended period: once a month)
5. Please use this camcorder to format memory card greater than 64GB.

2.2 Installing in Vehicles

2.2.1 Mount the Camcorder to Windshield

1. Put the electrostatic sticker onto the suggested area on the windshield. Before putting the sticker, please wipe and clean the windshield. During the installation, please make sure the bubbles in between the sticker and the window are all gone.
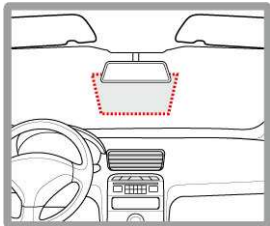
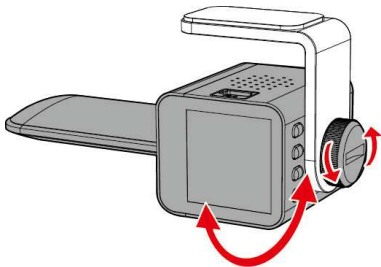2. Peel off the protective plastic sheet from the adhesive pad.
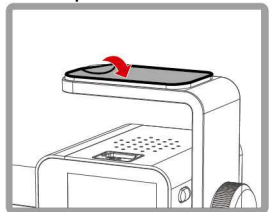
3. Place and press the bracket firmly onto the electrostatic sticker on the windshield window. Make sure the base is securely locked in place.
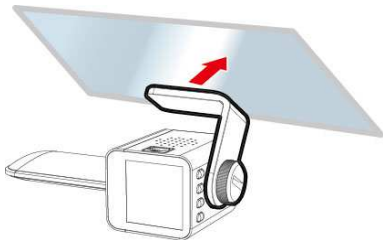
2.2.2 **Adjust the Camcorder**

1. Loosen the knob to swivel the camcorder to adjust view angle.

2. Then tighten the knob to make sure the camcorder is securely locked in place.

2.3   Connecting to Power

Use only the supplied car charger to power up the camcorder.
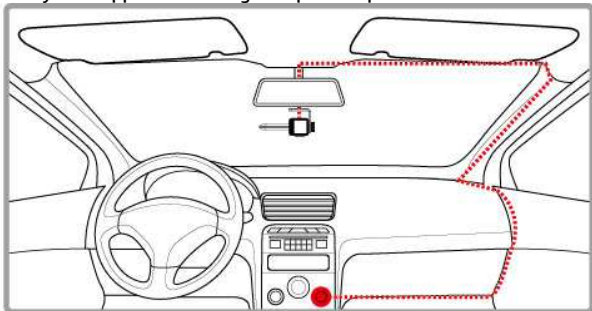
1.   Connect one end of power connector to power connector port on the camcorder. USB port input: DC 5V / 1.0A.
2.   Plug the other end of the car adapter to the cigarette lighter socket of your vehicle. Once the vehicle engine is started, the camcorder automatically turns on. Car charger input: DC 12 / 24V.

Note:
Please measure front windshield viewing area, so as not to block the driver's field of view, and install the camcorder under the driving mirror (upper central of the front windshield). And we recommend that the sky and the land occupied by 50% in the recording screen, please adjust the camcorder so that the alignment icon is aligning the driving lane.

2.4   LED Indicator

Status Explanation	LED Indicator Color
Power on	Blue on
Standby / Standby and screen off	Blue on
Recording/ Recording and screen off	Flash blue

2.5 Powering the Camcorder On / Off
2.5.1 Auto Power On/Off
Start the car engine, wait a few seconds to charge the camcorder, and then screen will light up and the camcorder will automatically power on and start recording.

Once the vehicle engine shuts down, the camcorder automatically saves the recording and turns off the power within 3 seconds.

Note:

The camcorder is built-in super capacitor. After start the car engine, please wait a few seconds for charging the camcorder, and then the camcorder will automatically power on and start recording

2.5.2 Manual Power On/Off

To manually turn on the power, press the **POWER** button.

To turn off, press and hold the **POWER** button for at least 3 seconds.
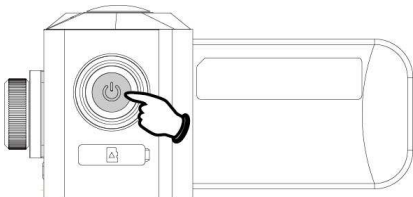
2.5.3 Reset

Press and hold the **POWER** button for 8 seconds to reset the device.
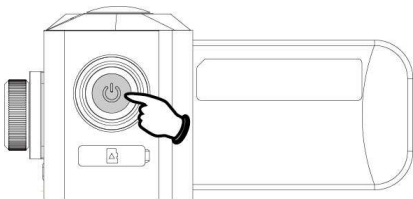
2.6 Initial Settings

Before using the camcorder, we recommend you setup the correct **Date and Time**.

Note:
Please note that if you press the ▤ button during recording, the system will stop recording and enter OSD menu. Make sure the recording is already stopped then continue operating the menu.

2.6.1 Set the Date / Time

To set the correct date and time, do the following:

1. Press the ▤ button to enter the OSD menu.

2. Press the △/▽ button to select **Date / Time**, and then press the ◎K button for entering function menu.

3. Press the △/▽ button to adjust the value, and then press the ◎K button to set the next field.

4. Repeat step 3 until the date and time setting is completed.

Note:
To ensure the accuracy of the video file time, please reset the date and time when not in use over 7 days.

3 Using the Car Camcorder

3.1 Automatic Record

Start the car engine, wait a few seconds to charge the camcorder, and then screen will light up and the camcorder will automatically power on and start recording.

Recording will automatically stop when the engine is switched off.

Note:
1. Some vehicle power supply would not turn on / off automatically with the car engine start, if the camcorder cannot automatically power on/off with the car engine, please manually connect the power supply with the vehicle power, and then power on, or manually power off the camcorder and then release the connector with the car power supply.
2. It can be configured to save a video file for every 30 Sec., 1 or 3 minutes of recording.
3. All the videos and photos are saved in the memory card, if memory card is full, loop recording will be generally overwrite the oldest video file.
4. The camcorder is built-in super capacitor. After start the car engine, please wait a few seconds for charging the camcorder, and then the camcorder will automatically power on and start recording.

3.1.1 The Recording Screen

No.	Icon	Item	Description
1	● **00:10**	Recording Duration	Indicates the video current duration.
2	2018/01/01 12:00:00	Date / Time	Indicates the current recording date and time.
3	▤	Menu Button	During video recording, press the ▤ button to enter the OSD menu；long press 3 seconds to enter 2 GRID FUNCTION CHART.
4	▷	Playback	During video recording, press the △ button to enter playback option.
5	◎	PIV (Picture in Video) Button	Press ▽ to capture video screen shots from the front camera.
6	⚠	Emergency Recording Button	During video recording, press the ◎⊠ button to enter emergency recording mode.
7	FHD HDR	Resolution icon	Indicates the video resolution.

3.1.2 Emergency Recording

To Start the Emergency Recording, do the following:

1. During Video Recording, press the ⊙⊠ button to enter emergency recording mode, the "***Emergency***" message will be shown immediately on the upper right corner of the screen, and the recorded file will be protected.

2. The emergency video recording length is same as the recording interval setting. When the emergency recording length reaches the setting, the system will return to the general recording mode.

Note:

1. If the *Collision Detection* function is enabled and a collision is detected, the camcorder will automatically trigger the emergency recording.

2. The emergency file is created as a new file and save in Emergency folder, which will be protected to avoid being overwritten by normal loop recording. The emergency video folder will occupy 40% of available memory card capacity. For example, if you use 8GB memory card, about 3.2GB memory space will be saved for emergency files. When the emergency video folder is full, the oldest emergency file will be automatically deleted by the newest emergency file.

3.2   Picture in Video

You can also use this camcorder to take snapshots of the current scene.

1.   In recording status, press $\triangledown$ to capture recording screen shots from the front lens.

2.   When the icon ![icon] shows in the central of screen, it means the screenshots is completed.

Note:
1. The screen shots image resolution quality is depending on the video resolution setting.
2. The definition of picture in video by this product, the picture resolution is limited by the speed of the target object and changes in ambient lighting. The photograph function is better used for taking still pictures in accident scenes or when the car is stopped to wait for a traffic light.

3.3   Driver Fatigue Alert

If the **Driver Fatigue Alert** function is enabled, this product produces audible alert and screen message one hour after it has begun recording and repeats the alerts every half hour afterwards.

To enable the Driver Fatigue Alert, do the following:

1.   Press the ▤ button to enter the OSD menu.

2.   Press the △/▽ button to select **Driver Fatigue Alert**, and then press the ⓞⓚ button for entering function menu.

3.   Press the △/▽ button to select **On**, and then press the ⓞⓚ button to enable the function.

4.   Press the ↩ button return to recording screen.

5.   This product produces audible alert and screen message when **Driver Fatigue Alert** activates.

3.4　Parking Mode

To monitor the vehicle when it is parked, you can activate **Park Recording,** or **Motion and Collision Detection, or Timelapse**.
Before you activate Parking Mode, please install ACC cable through professional car service shop.

Follow the steps below to change the settings for Parking Mode:
1. Press the ▤ button to enter the OSD menu.
2. Press the △/▽ button to select **Parking Mode**, and then press the ⊙🄺 button for entering function menu.
3. Press the △/▽ button to configure Parking Mode (Park Recording / Motion and Collision Detection / Timelapse/　Off), and then press the ⊙🄺 button to complete setting.
4. Press the ⬅ button to return recording screen.

Note:
1. ACC cable is not included in the package. Please ask for more information from your distributor.

3.4.1　Park Recording
- In normal recording, press and hold **OK** key for 3 seconds, the screen will show message "***Press OK key to power off or enter Park Recording after 10 sec.***" Please wait for 10 seconds and the camcorder will enter Park Recording automatically. The camcorder will turn off the screen temporarily, but still in recording status. Once the collision or vibration is detected, it will automatically trigger emergency recording.
- To disable this function, press any key to wake up the screen, and resume to normal loop recording.

Note:
1. The video file taken in this mode is same as normal loop recording mode. It will be saved in the "Video" folder. And the emergency file will be saved in the "Emergency" folder.
2. The file size is according to Record Interval setting.

3.4.2 Motion and Collision Detection
- In normal loop recording mode, press and hold OK key for 3 seconds, the screen will show message "***Press OK to power off or enter Motion and Collision Detection after 10 sec***." Please wait for 10 seconds and the camcorder will enter Motion and Collision Detection automatically. The camcorder will turn off the screen temporarily, but still in standby detection status. When the camcorder detects any motion in front of lens or any vibration/collision, the video recording will be triggered and the event will be recorded.
- To disable this function, press any key to wake up the screen, and resume to normal loop recording.

Note:
1. The video file taken in this mode will be saved in the "Emergency" folder.
2. In this mode, the event will be recorded for 10 seconds (per file). If the event lasts more than 10 seconds, the camcorder will keep recording up to 2 minutes.

3.4.3 Timelapse
- In normal loop recording mode, press and hold OK key for 3 seconds, the screen will show message "***Press OK to power off or enter Timelapse after 10 sec***." . Please wait for 10 seconds and the camcorder will enter Timelapse automatically. The camcorder will turn off the screen temporarily, but in timelapse recording status.
- To disable this function, press any key to wake up the screen, and resume to normal loop recording.

Note:
1. The video file taken in this mode will be saved in the "Video" folder.
2. In this mode, the camcorder is continuously recording by one second one frame. For example, 30 minutes recording will be saved in one minute.
3. The file size is according to Record Interval setting.

3.5   Collision Detection

If the **Collision Detection** function is enabled, this camcorder begins emergency recording once it detects any collision. Sensitivity of the Collision Detection function is set to Normal by default, if user wants to change the settings of Collision Detection, do the following:

1.   Press the ▤ button to enter the OSD menu.
2.   Press the △/▽ button to select **Collision Detection**, and then press the ⓄⓀ button for entering function menu.
3.   Press the △/▽ button to change the sensitivity of this camcorder's collision detection (High Sensitivity / Normal Sensitivity / Low Sensitivity / Off), and then press the ⓄⓀ button for entering function menu.
4.   Press the ⟵ button return to recording screen.

Note:
The emergency file is created as a new file and saves in Emergency folder, which will be protected to avoid being overwritten by normal loop recording. The emergency video folder will occupy 40% of available memory card capacity. For example, if you use 8GB memory card, about 3.2GB memory space will be saved for emergency files. When the emergency video folder is full, the oldest emergency file will be automatically deleted by the newest emergency file.

3.6　File Playback
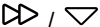
Playback video record files as follows:

1. Press the ▤ button to enter the OSD menu.
2. Press the △/▽ button to select **Playback**, and then press the ⓄⓀ button for entering function menu.
3. Press the △/▽ button to select **Video / Emergency/ Picture**, and then press the ⓄⓀ button for entering menu.
4. Press △/▽ button to browse video files, select the video file and then press ⓄⓀ button to enter **Playback Mode**.
5. Press the ⬠ repetitively to return recording screen.

3.6.1　Playback Screen
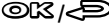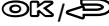
No.	Icon	Item	Description
1	1/30	File Number / Total File	Indicates of the total number of files.
2	▷▷ 4X	Fast Forward / Fast Rewind icon	Indicates video fast-forward and rewind status.
3	HPIM0001.MOV	File name	Indicates the file name of video / picture.
4	⬠	Return	Press the ⬠ button to return preview screen of video or picture. Press the ⬠ button repetitively to return recording screen.

No.	Icon	Item	Description
5	◁◁ / △	Fast Rewind / Previous File Button	When playing videos, press the △ button will reverse the playback. Press △ button to view previous file.
6	▷▷ / ▽	Fast Forward / Next File Button	When playing videos, press the ▽ button to fast forward playing of video. Press ▽ button to view next file.
7	▷❙❙ / ❙❙	Playback/ Pause button	Press the ◉⏻ button to play or pause the video.
8	00:28/ 00:36	Playback Duration / Total Duration	Indicates video playback time and total duration.
9	2018/01/01 12:00:00	Date and time	Indicates the date and time of film.
10	△	Previous File	When viewing pictures, press the △ button will switch over to the previous file.
11	▽	Next File	When viewing pictures, press the ▽ button will switch over to the next file.

3.7 Deleting Files

To delete file(s), do the following:

1. Press the ▤ button to enter the OSD menu.

2. Press the △/▽ button to select **File Deletion**, and then press the ⊙Ҝ button for entering function menu.

3. Press the △/▽ button to select **Video / Emergency / Picture**, and then press the ⊙Ҝ button for entering menu.

    - **Delete One:**
        - Press the △/▽ button to select **Delete One**, and then press the ⊙Ҝ button to enter the menu.
        - Press △/▽ button to browse files , select the files you want to delete and then press ⊙Ҝ button to enter the menu.
        - Press the △/▽ button to select item, and then press the ⊙Ҝ/⊅ button to confirm or cancel the selection.
    - **Delete All:**
        - Press the △/▽ button to select **Delete All**, and then press the ⊙Ҝ button to enter the menu.
        - Press the △/▽ button to select item, and then press the ⊙Ҝ/⊅ button to confirm or cancel the selection.

4. Press the ⊅ repetitively to return recording screen.

Note:
Deleted files cannot be recovered. Ensure the files have already backup before deletion.

4 Adjusting the Settings

4.1 Using the Menu

You can customize the general settings via the on-screen display (OSD) menus.

1. Press the 🖽 button to enter the OSD menu.
2. Press the △/▽ button to select menu item, and then press the ⓄⓀ button for entering function menu.
3. Press the △/▽ button to select or adjust the value, and then press the ⓄⓀ button to confirm setting.
4. Press the ⬅ button to return recording screen.

4.2 Menu Items

Refer to the below table for details of main menu and function list.

Menu option	Description	Available option
Playback	Select the file category that you want to view.	Video / Emergency / Picture
Date / Time	Set the date and time.	Press the △/▽ button to adjust the value, and then press the ⓄⓀ button to set the next field, and complete setting
Language	Language setting.	According to the actual shipping regions.
Time Stamp	If the time stamp is enabled, recording files or photos will show the date and time.	On / Off
WDR	Present a crisp and clear picture quality with harmonious contrast in a high contrast, high discrepancy environment.	On / Off
Resolution	Setting of video resolution.	1920x1080@30fps HDR/ 1280x720@30fps HDR

Menu option	Description	Available option
EV	Setting of exposure value.	Press the △/▽ button to set the exposure value. It can be set between -2 ~ +2
LCD Setting	Set LCD off time. Camcorder screen will be off after a set time if no operation is detected during the standby or record mode. Press any button will switch it on. (Recording is not affected when screen is off).	On / Off After 30 sec. / Off After 3 min. / Off
LED Setting		On / Off
Voice Record	Setting for activating audio in the video.	On / Off
Key Tone	Turn on/off key tone and power-on tone	On / Off
Volume	Adjust the sound volume.	Press the △/▽ button to set the volume. It can be set between1 ~ 10.
Record Interval	Save respective video files in a length of the selected duration.	30 sec. / 1 min. / 3 min.
Parking Mode	To monitor the vehicle when it is parked, you can activate Parking Mode	Park Recording / Motion and Collision Detection / Timelapse / Off
Collision Detection	If Collision Detection is activated, this camcorder starts emergency recording once it detects any collision.	High Sensitivity / Normal Sensitivity / Low Sensitivity / Off

Menu option	Description	Available option
Driver Fatigue Alert	When Driver Fatigue Alert is enabled, audible alert and screen message will be activated 1 hour after the camcorder is powered on, with a repetition every 30 minutes.	On / Off
File Deletion	Delete the file(s).	Video / Emergency / Picture
Anti-flicker	Domestic power supply varies by area. It is recommended that you should check the "Table of voltage and frequency of different countries" for the correct setting.	60Hz / 50Hz
Format	Format the memory card inserted in the equipment. All the files in the card will be erased.	Yes / No
Default Setting	The system reverts to the default setting.	Yes / No
Firmware Version	Indicates the current firmware version.	

5   Specifications

Item	Description
Image Sensor	1/2.9" CMOS sensor
Effective Pixels	1920 (H) x 1080 (V)
Storage Media	Support SDHC class 10 and 16GB micro SD card (up to 32GB)
LCD Display	1.3" TFT LCD color screen
Lens	Wide Angle Fixed Focus lens F2.0, f=2.34mm
Focus Range	1.5m~Infinity
Movie Clip	Resolution: 1920x1080@30fps HDR/ 1280x720@30fps HDR Format: MOV
Still Image	Resolution: depends on video resolution setting Format: JPEG
Shutter	Electronic shutter
G-Sensor	3-Axis G-Force sensor
ISO	Auto
White Balance	Auto
Microphone	Yes
Speaker	Yes
Interface	Mini USB
Battery	Super Capacitor
Best Working Temperature	0° ~ 45° C

Item	Description
Operating Humidity	20 ~ 70% RH
Storage Temperature	-20° ~ 70° C
Dimensions	99 x 46.6 x 51.1 mm
Weight	Approx. 82g (without memory card)