

Aleta S1



User Guide

Version 2.2

Introduction

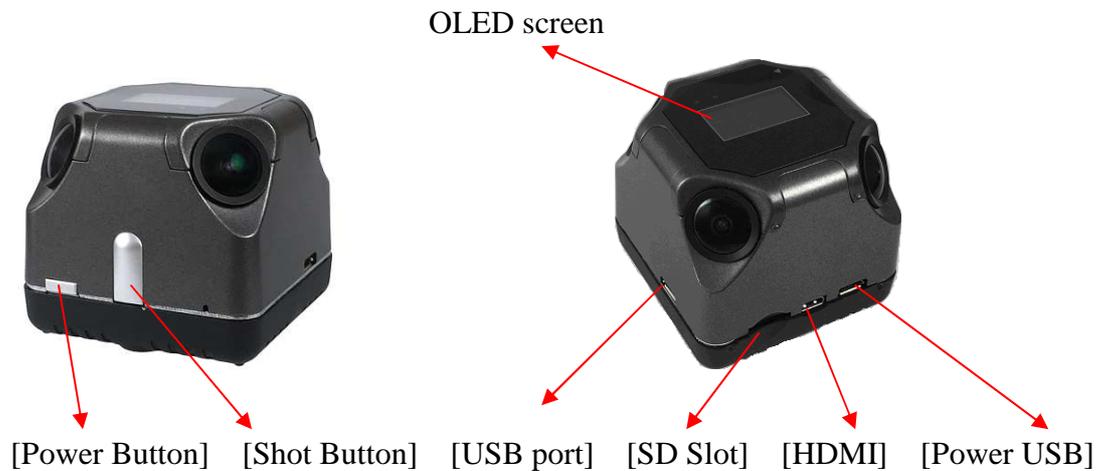
This manual is for the users who attempt to use Aleta S1 360 degree camera and the Aleta Viewer on mobile device.

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Chapter 1 Connectors and Buttons



1.1 Power Button

- Press power button to power on the camera.
- Press power button to enter sleep mode when camera is on.
- Press power button again to exit sleep mode.
- Hold power button for 2 seconds to turn off camera. The OLED screen will show “Shutting down”
- Hold power button for 4 seconds to hard shut down the camera.

1.2 Shot Button

- Press shot button to take picture in Photo mode.
- Press shot button to start / stop recording in Record mode.
- Hold shot button to switch Photo / Record mode.
- Hold shot button and tilt the camera to enter motion setting mode.



Rotate camera to move the options and click shot button to select.

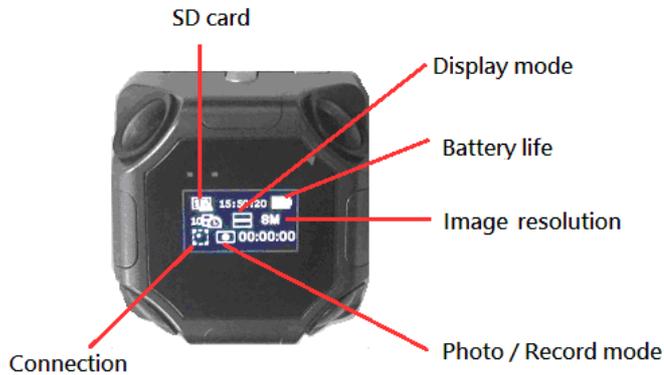
First row: Photo / Recording / Burst mode / Time-lapse mode

Second row: Display mode

Third row: Resolution

1.3 OLED screen

The icons on the OLED screen would show camera information:



1.4 LED indicators

Yellow LED: Power and recording

Blue LED: Wi-Fi data transferring

1.5 Connectors

- USB port: Connect to extension devices.
- SD Slot: Insert Micro SD card for storage. The camera supports 8GB~128GB SD cards, but only in FAT32 format. Note that most 128GB SD cards exFAT so please use the camera to format it.
- HDMI: Connect to HDMI displayer.
- Power USB: Connect to USB power to charge the battery.

Chapter 2 Connect to Aleta S1 to Mobile Device

2.1 Install Aleta Viewer

Install Aleta Viewer from APP Store or Google Play on your mobile device. The icon

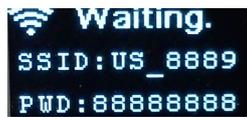


will show on your app list.

2.2 Power on Camera

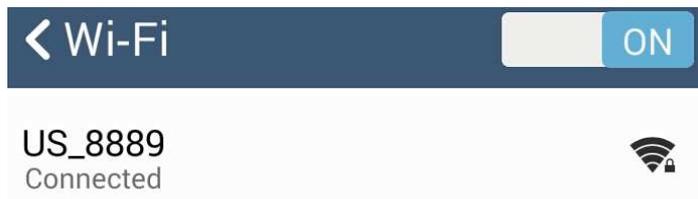
Click the power button to power on the camera.

During the booting processing, a set of SSID and Password will show up on the OLED screen.



2.3 Connect to Wi-Fi

Connect to the Wi-Fi SSID and input the password shown on camera by your mobile device.



※If you missed the Wi-Fi SSID and password information, click power button to enter sleep mode, and click it again to wake up the camera. The Wi-Fi information will show up again.

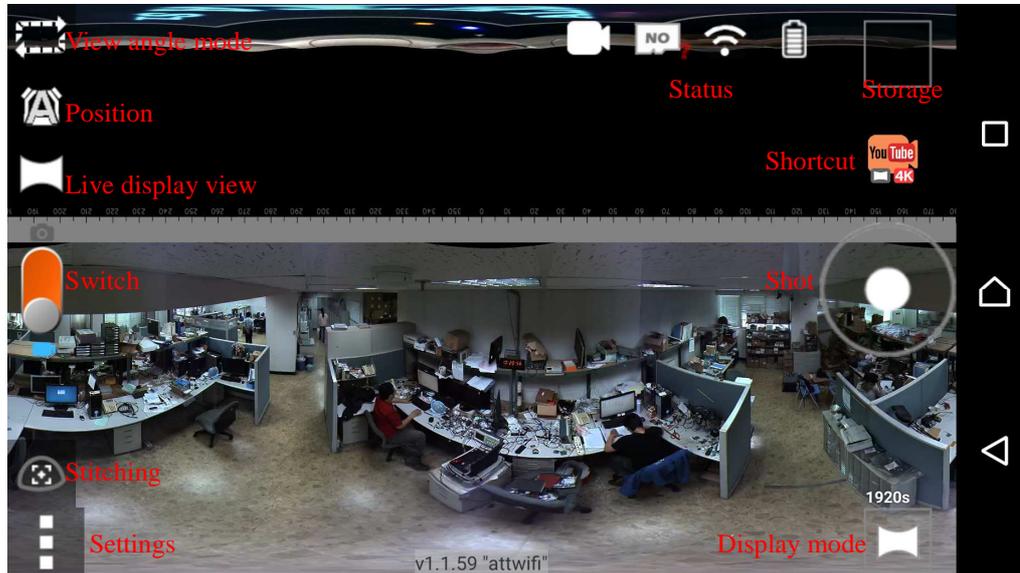
2.4 Run Aleta Viewer



Click the  icon to run the Viewer. If the Wi-Fi is connected correctly it will show live image immediately.

Chapter 3 Live View Function

3.1 Live View



The live image should be displayed in Front mode while you first access to Viewer. There are 3 modes to control the view angle:

-  Normal mode: Slide on the screen to change the view angel.
-  Auto mode: The view angel will keep moving after sliding.
-  Compass mode: Rotate your mobile device to change the view angel.

Just click the icon in the upper-left to switch the mode.

3.2 Switch button

Slide the  button to switch photo and recording modes. Note that 6K resolution is only available in photo mode.

3.3 Shot button

In photo mode, click the capture button  to take pictures. In recording mode,

click the recording button  to start recording, and click it again to stop.

Recording time will show up during recording. The maximum size of the recoded file

is 1GB, and the maximum time is 30 minutes. Once one of the thresholds is reached, camera will save current file and start a new file automatically.

3.4 Position

There are 3 position modes:

-  Auto
-  Flat
-  Ceiling

Select the mode according to the way you install your camera, or use Auto mode for auto position detection.

3.5 Live display view

In Global display mode, live view can be displayed in different views. (To change display mode, please see **Chapter 4: Display Mode**).



Normal global view: Display full 360 image.



Front view: Display 90 degrees of image and the view angle can be changed.

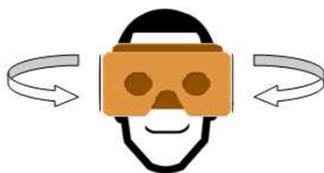


Tiny planet view: Display 360 image in a circle.



VR view: Display side-by-side image. Please use a cardboard to view the immersive 360 degree image.

View angle control:



Rotate head to change view angle

3.6 Status

The status icons will show in upper-right.

-  SD card status. “OK” means SD card is in slot and ready for image saving. “No” means there is no SD card in slot. “100%” means the SD card is full, and “ERR” means the card is broken or still in detection. Click this icon can view full SD card status.
-  Wi-Fi signal status. “!” mark means the signal is weak or disconnected that image could be lag or lost. Click this icon could select available Wi-Fi. (Android only)
-  Battery life indication. Click this icon can view full battery status.
-  Shooting mode. Photo mode includes continuous shooting and self timer. Recording mode includes time-lapse. Click this icon can change the setup.

3.7 Shortcut

Click the  button can enter the shortcut menu. It offers some default settings for different applications. You can set the shot mode, display mode, resolution, and time-lapse just in one click.

3.8 Storage

Click the upper-right button  to access the storage menu.

Tool Bar:



- All / Photo / Video: Select the type of file to be shown.
-  Change the amount of displayed files.
-  Switch to Atelta SD card / Mobile device storage.
-  View file folders (Android) / Album (iOS) in the cell phone
-  Play selected file. Only downloaded files can be played. To play a file in

SD card will trigger download first. Files recorded in 360 or Global mode can be displayed in different formats. Click the button on lower-right to select the format.



Normal 360: Display full 360 image.



Front view: Display 90 degrees of image and the view angle can be changed.



Tiny planet: Display 360 image in a circle.



VR: Display side-by-side image. Please use a cardboard to view the immersive 360 degree image.

View angle control:



Rotate head to change view angle

-  Download file from SD card to mobile device.
-  Upload selected file. Only downloaded files can be uploaded. To play a file in SD card will trigger download first. During uploading the camera will shut the Wi-Fi connection so that the cell phone can access internet through other connection.
-  Delete file

The color of frame means different status:

- Green: Selected
- Gray: Downloaded
- Red: Resume (download unfinished)

The color of file name tag different location:

- Green: In camera SD card
- Blue: In cell phone local storage
- Yellow: In cell phone SD card

3.9 Stitching

Stitching is focus function to adjust the distance between lenses.

Click the bottom-left button  can change the stitching method:



Manual: Manually change distance. (See 5.2 **Focus** for more information)



One Time: Auto stitching one time and then keep the setting.



Loop: Auto stitching continuously.

* There is a min. distance of 65 cm that can be stitched.

Chapter 4 Display Mode

Click the display button in the bottom right to setup display mode and video quality. First click the mode icon, and then click the resolution number to finish the setting. The live view display, captured picture, and recorded video will all follow the setting.

4.1 Global



Global mode is the standard panorama mode including full sky view which is capable for Google and YouTube image format. 6K is for photo only.

Video frame rate:

- 4K(1920s): 10fps
- 3K(1536s): 24fps

* Global mode can be played in different views in live display.

4.2 360



This mode displays 360 degree image without full sky. The horizontal view angel can be moved by view angle control. 6K is photo only and the video frame for 3K (1536s) is 24.

Note: The actual pixel size would be different between video and picture in 360 and global mode since video would have addition filler image to blind spots for better looking and capacity. The actual size:

| | Picture | Video |
|--------|-------------|-------|
| 360-6K | 6144 x 1152 | N/A |

| | | |
|-----------|-------------|-------------|
| 360-3K | 3072 x 576 | 3072 x 1536 |
| Global-6K | 6144 x 1792 | N/A |
| Global-4K | 3840 x 1120 | 3840 x 1920 |
| Global-3K | 3072 x 896 | 3072 x 1536 |

4.3 Front



90° view with free view angle moving. Recording frame rate is 30 fps for both 1080p and 720p resolution. Note that this mode offers better quality but the view angle cannot be changed after recording.

4.4 180



This mode displays a combination of two 180° view without full sky. The horizontal view angle can be moved by view angle control.

Video frame rate for 180 mode:

- 4K(2160p): 10fps
- Full-HD (1080P): 30fps
- HD (720p): 30fps

4.5 Quad



This mode is 4-screen split mode with free view angle moving.

Video frame rate for Quad mode:

- 4K(2160p): 10fps
- Full-HD (1080P): 30fps
- HD (720p): 30fps

Chapter 5 Setup

Click the bottom-left button  for Aleta S1 setup.

5.1 EV



Change image target brightness by selecting the EV value. Note that the target is adjusted by ISO and shutter speed. If both ISO and shutter speed are set to fixed values, this function would not work.

5.2 Focus



The focus function changes the stitching gap between lenses. The button will work differently according to **Live Stitching** setting.

One Time  or **Loop** : This button will trigger auto stitching



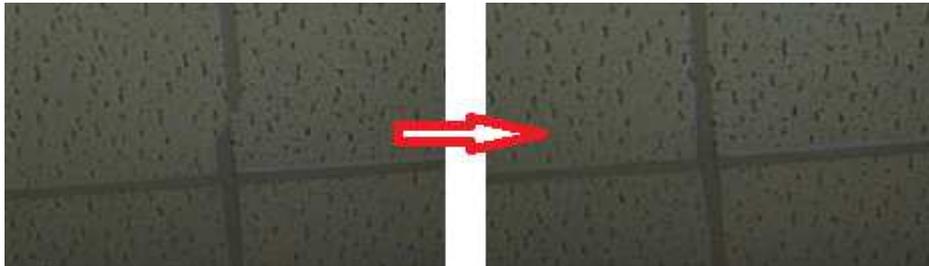
Manual: Manually change stitching gap by distance.. Just slide the bar to find the best stitching gap for the target.



■  Stitching gap for the image on top.



■  Stitching gap for surrounding image.



5.3 ISO



Change image gain value. Larger gain brings more brightness, but also more noise. If ISO is set to auto, camera will adjust it based on EV.

5.4 Shutter Speed



Change the shutter speed. Fast (short) shutter speed can get clear image for moving objects, but the brightness would become low. If shutter speed is set to auto, camera will adjust it based on EV.

※ EV target adjustment is based on ISO and shutter speed, so it only works when at least one of them is set to “Auto”.

5.5 Sharpness



Change the sharpness of the image.

5.6 White Balance



Change the white balance of the environment:

- AUTO Auto detection
- Lamp
- Fluorescent
- Daylight
- Cloudy

5.7 Setting



Camera

- **Photo Mode:** It includes continuous shooting mode and selfie countdown. Set burst to capture 3 / 5 / 10 shots by one click and 2 / 10 seconds countdown time for self shooting.
- **Time Lapse Mode:** Setup the time between each frame for time lapse mode. The recorded video would be played in 30 fps. The time-lapse video would be faster than normal video and need more time to record.
 - 0.1 sec: 3 times faster.
 - 1 sec: 30 times faster
 - 2 sec: 60 times faster
 - 5 sec: 150 times faster
 - 10 sec: 300 times faster
 - 30 sec: 900 times faster
 - 60 sec: 1800 times faster
- **Light Frequency:** Select the frequency of the light source and electric equipments to avoid flicker.

System

- **Format SD:** Format the SD card in camera (all files will be erased).
- **Sleep:** Set the idle time that triggers sleep mode. Click the power button can wake up the camera. Note if the camera is in sleep mode for over 10 minutes, it will shut down automatically.
Auto: Auto speed control by temperature detection.
- **Restore to Factory Default:** Reset all settings to default.
- **About:** Check Firmware version, System Time, Battery power, and SD card status.

Advanced

- **Power Saving:** On: Live view image on the viewer is all 6 fps.
Off: Live view image on the viewer is up to 30 fps.
Choose Normal for power saving and Performance for smoother image.
- **Wi-Fi Channel:** Select the Wi-Fi channel to avoid interference.
- **SSID / Password:** Change the SSID and password of the camera Wi-Fi.
- **Fan Control:** The fan can cool down the camera, but it will also make noise for audio recording. Select the fan behavior that fits your application.
On: Always on and in max speed.
Off: Always off.
- **Live Stream Codec:** H.264 is more compressed but need more CPU power to decode. MJPEG is easier to decode but need more bandwidth so that the frame rate is lower. Note that if your cell phone doesn't support 4K H.264 decoding, you can only use MJPEG to view 3K / 4K / 6K live image.
- **Color Control:** Color control on will make color stitching more accurate, but will cause unstable cooler shifting while camera is moving. Set it on, off or auto for the best performance in different conditions.
- **Ethernet Setting:** Set camera IP for Ethernet IP connection.

***For Ethernet connection, please refer to Appendix 1.**

- **HDMI Display Chart:** Show / Hide the lumen chart in HDMI display.
- **Camera Version Update Tip:** Turn on / off the notice of camera firmware update.

Chapter 6 Firmware Upgrade

- Put the upgrade file (.zip) to the root of the SD card and make sure that there is no other zip file in the same root.
- Insert the SD card into the camera.
- Turn on the camera and while the SD card status is “OK”, the camera will start to upgrade.
- After finishing upgrading, the camera will reboot.
- The upgrade file will be remembered so the camera will not keep upgrading by the same file.
- If the zip file is not recognized successfully, the camera will stop upgrading and show “aborted” on the OLED screen. Please press power button to shut down the camera and check the file again.

Appendix 1: Aleta S1 Network streaming display guide

1. IP setting

Required devices:

(1) Micro USB to RJ45 adaptor



(2) Network Hub



1-1. DHCP: No need setting.

1-2. Static IP: Connect to Aleta S1 by Aleta Viewer and go to Ethernet Settings.

Ethernet Settings

| | |
|----------------|--|
| IP Mode : | <input checked="" type="radio"/> DHCP <input type="radio"/> MANUAL |
| IP Address : | 0.0.0.0 |
| Mask Address : | 0.0.0.0 |
| GateWay : | 0.0.0.0 |
| DNS Server : | 0.0.0.0 |

1-3. Connect Aleta S1 to the Hub through a USB to RJ45 adaptor.

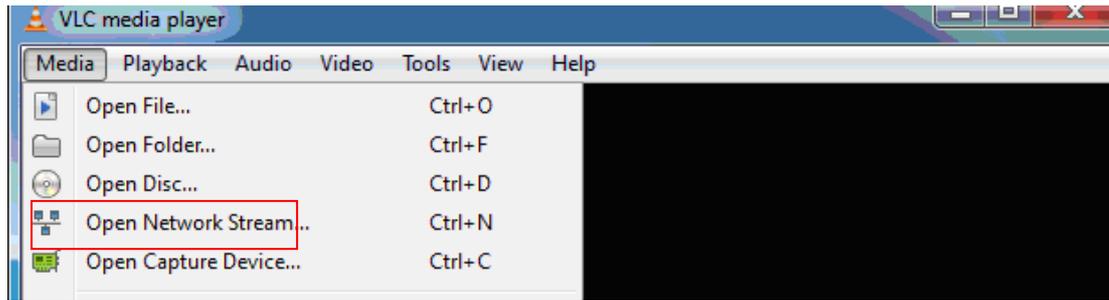


1-4. After connection, the OLED screen will show the IP.



2. Play by VLC player

2-1. Connect your PC to the hub and run VLC Player and click open "Network Streaming".



2-2. Input: rtsp://(IP):8554/us360.264

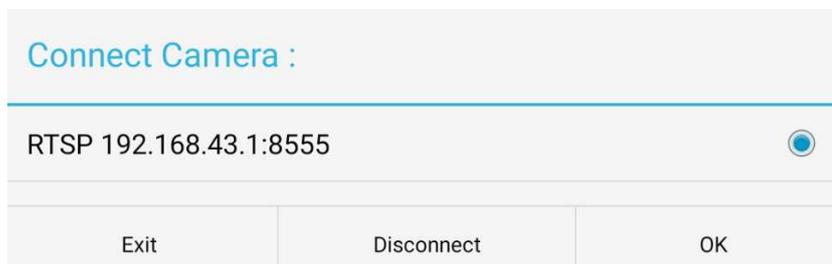
rtsp://192.168.0.219:8554/us360.264

*If it needs user name and password, enter the camera Wi-Fi SSID and password.

3. Play by the Viewer on a mobile device

3-1. Connect your mobile device to the same network of the camera and run the Viewer.

3-2. Click the Wi-Fi icon on upper-right and select RTSP connection. (For iOS version, run the APP without connecting to a Aleta S1 Wi-Fi, the RTSP connection will show up.)



2-8. Input the IP and port to connect to the camera in the network.