PaceBlade Camera Hub Instruction Manual

Model

☐ HH420 (without HDD)
☐ HH421 (with HDD capability)

Camera Input

☐ Up to 4 camera inputs (all camera must be same
☐ type) Support analog camera (960*576)
☐ Support AHD 720p camera (1080*720)
☐ Support AHD 1080p camera (1920*1080)

Power Supply

☐ Input DC 12V-36V

Product picture

HH420/HH421 Camera Hub

①12PIN Socket ②RJ45 Socket ③Lock ④Video output socket ⑤Wifi antenna socket

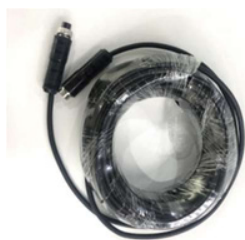HH421 with HDD

HDD size: 100*69*7mm

MDT Device

Cradle

Camera

15m extension cable Video cable Power switch

Connections

▢ Connect the power switch to the power supply 12V-36V.

▢ Connect the cradle to power switch.

▢ Connect the cradle to the camera hub.

▢ Connect the video cable to the camera hub.

▢ Connect the camera to the video cable, if necessary, you can connect the extension cable between the camera and the video cable (as shown below).

▢ Install the live video application (DemoRtpView-FourChannels.apk or DemoRtpView-OneChanne.apk) to the
MDT device.

▢ Put the MDT device to the cradle.

▢ The Camera Hub will start working when ignition is on.

▢ As the trigger switch turns on, the live video application will popup automatically on the screen of the MDT device.
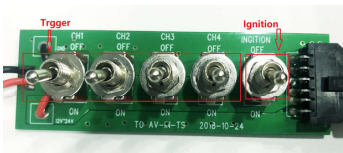
Trigger Voltage Optional

1. when the Jumper is put in, the voltage for trigger

as

below:

< around 5V, it is LOW

> around 5V, it is HIGH

2. When the Jumper is removed, the voltage for
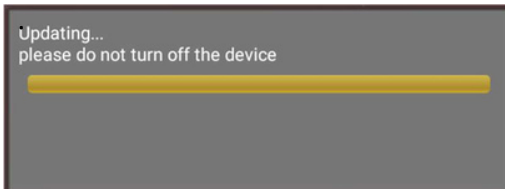
trigger

as below:

< around 16V, it is LOW

> around 16V, it is HIGH

3

Upgrade the camera hub's firmware

1. Install the upgrade application (HH40RemoteUpgrade.apk) on the MDT device.
2. Put the device to the cradle, and it will upgrade files automatically when the device connected to the camera hub, and you can see the upgrade progress bar displayed on the screen.
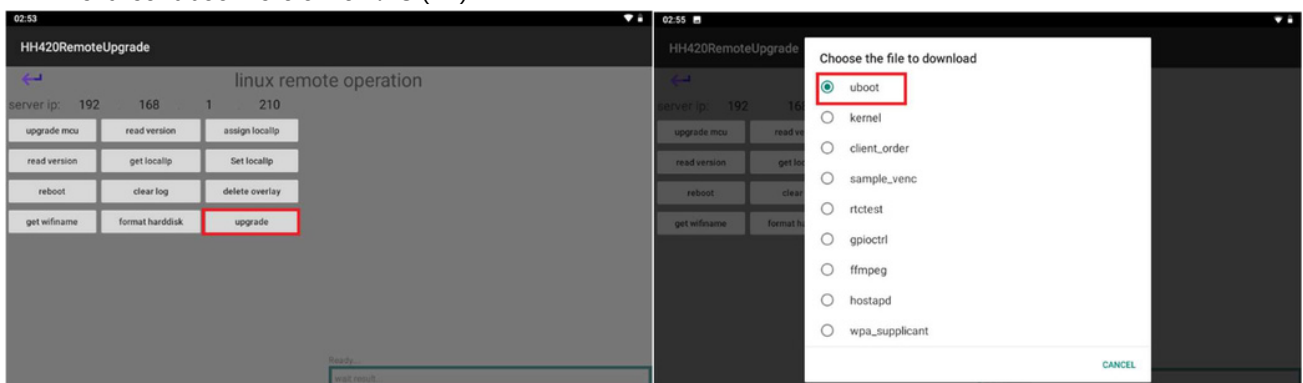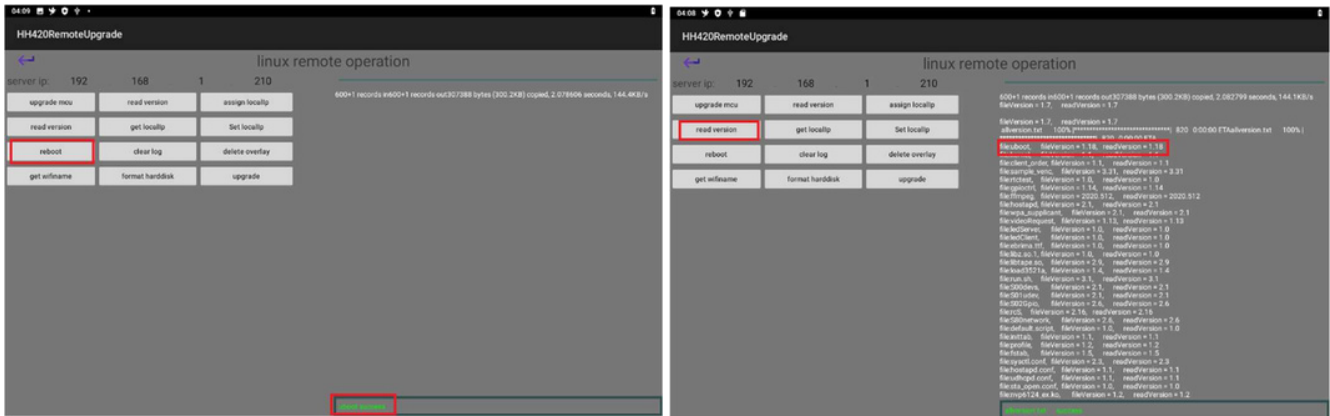

Update the uboot file

1. Open the phone app on the MDT device.
2. Dial *#*#420#*#* to enter the remote upgrade interface
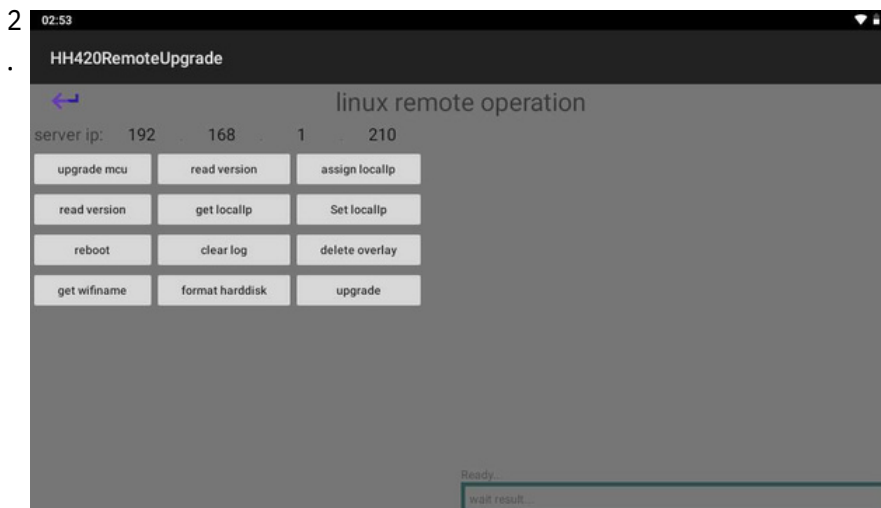
3. Click upgrade (P1)☐ Click uboot (P2)☐Click reboot to restart the camera hub if upgrade success (P3) ☐ The latest uboot version is 1.18 (P4)


P1 P2

P3 P4

Display video with trigger

1   Install Rtsp Trigger application to the MDT device.
.
2   when the trigger is turned on, it automatically pops up the video.

Output the video via RJ45

1. Set IP address
1) Open the phone app on the MDT device.
2) Dial *#*#420#*#* to enter the remote upgrade interface
3) The default IP address in the camera hub is 192.168.1.210, you can change it.
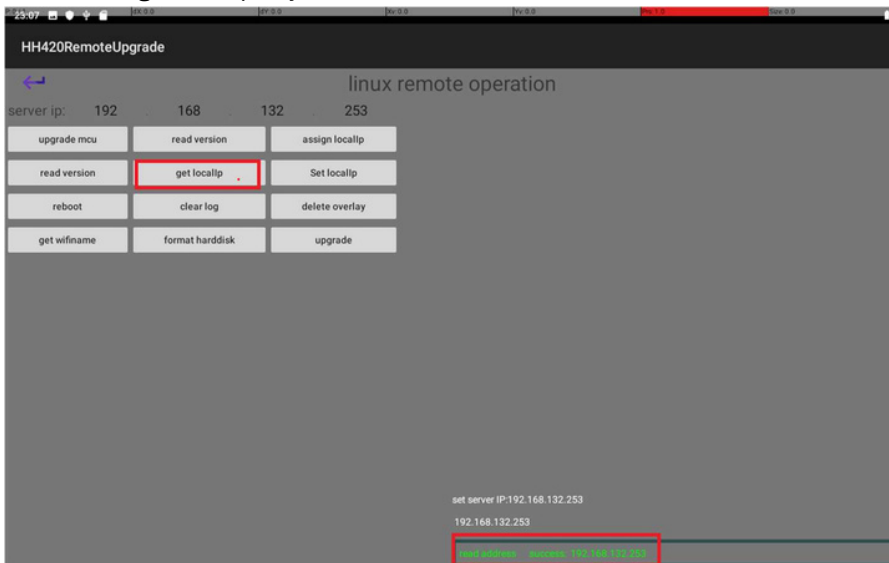4) Please follow the IPV4 address of your computer network to set the camera hub's IP address.
For example: if the IPV4 address is 192.168.132.20 of your PC, so it need set the IP address of the camera hub to 192.168.132.xxx (xxx less than 255).
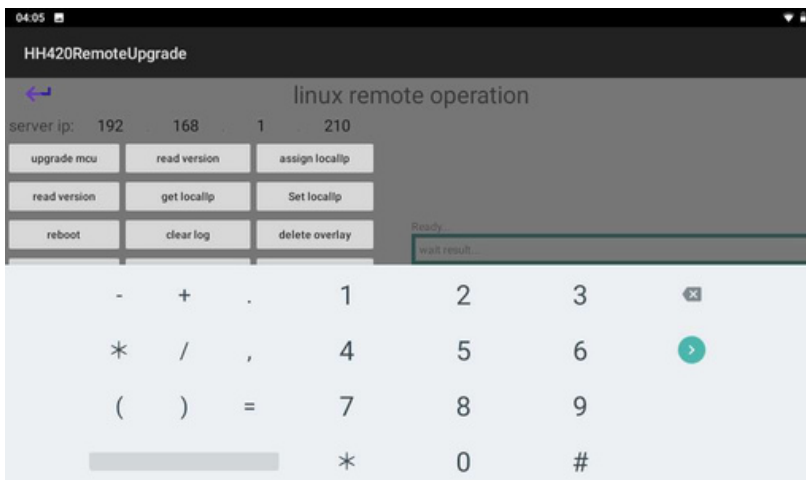
4) Press the Set localIp key to save the IP address.
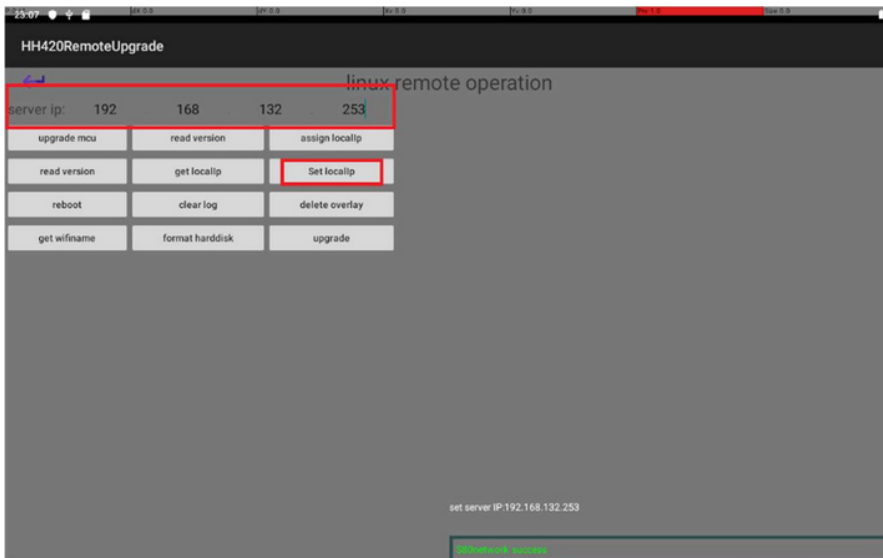
5) Press the get localIp key to check the IP address that has been set.
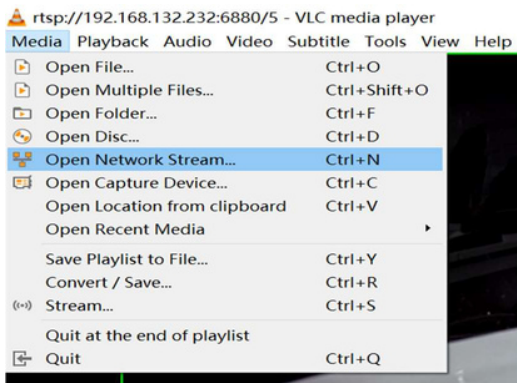

2. Connect the network cable to the RJ45 socket on the camera hub.

3. It can use VLC player on-demand-video on your PC.

1) Open the VLC player from your computer.

2) Set the network URL for VLC player.

      Steps: Media-->Open Network Stream-->Network (show as below)

Please enter a network URL: rtsp://192.168.1.10:6880/1~4 or 5~8 (Channel 1/2/3/4 for 1080P video and channel 5/6/7/8 for 720P video), and set the cache time to 100ms-200ms, and then click the play button to display video.
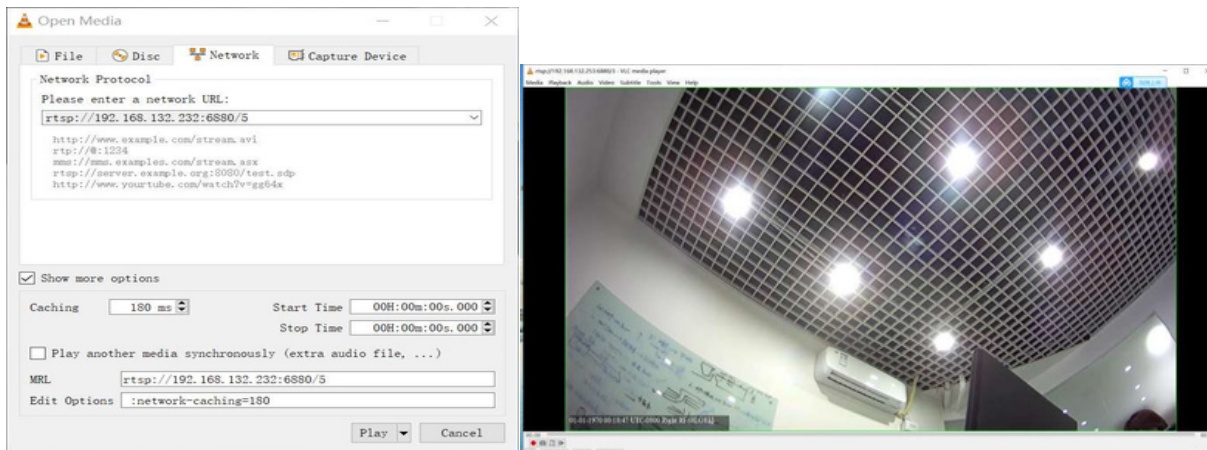
Overlay display

1. Edit the overlay.txt file, user can change the Date Format, Time Zone, Camera Name and Vehicle ID in the overlay.txt file (as show below screenshot).

Time Zone:

1) Because the time zone setting of LINUX is opposite to UTC time, so the plus is replaced with minus, and the minus with plus，for example: the German time zone should be set to UTC-0200.

2) The overlay display time of all 4 channels uses the time zone in the first row (<1) of overlay.txt.

```
# OVERLAY_VERSION=v1.0
# date"DD-MM-YYYY HH:MM:SS " BST"UTC[+-][0~9]{4} " Camera"[a~Z]{1,5} " VehicleId"[a~Z,-]{11}"

<1 Date(DD-MM-YYYY HH:MM:SS) TimeZone(UTC-0200) Camera(Front) VehicleID(RF68LG933)>
<2 Date(DD-MM-YYYY HH:MM:SS) TimeZone(UTC-0200) Camera(Left) VehicleID(RF68LG933)>
<3 Date(DD-MM-YYYY HH:MM:SS) TimeZone(UTC-0200) Camera(Right) VehicleID(RF68LG833)>
<4 Date(DD-MM-YYYY HH:MM:SS) TimeZone(UTC-0200) Camera(Back) VehicleID(RF68LG833)>
# end
```
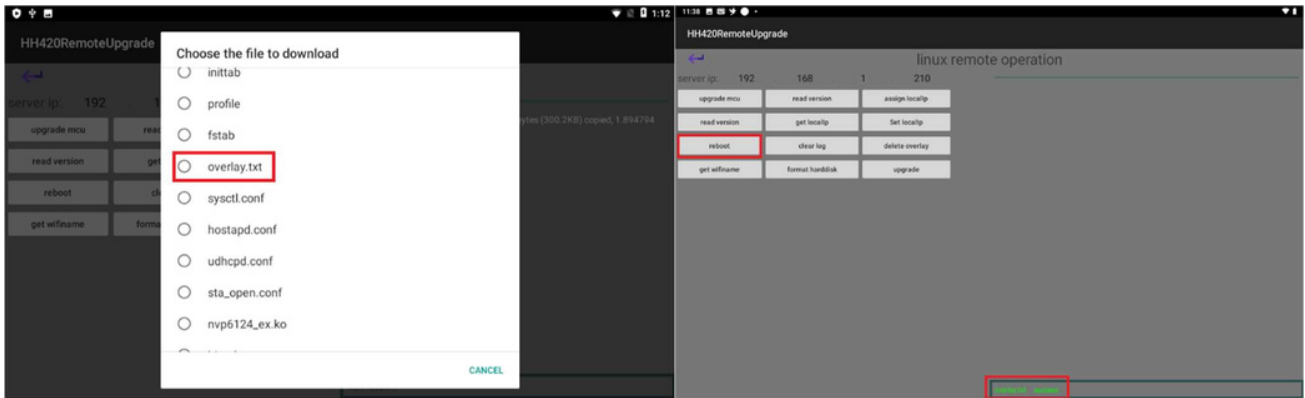
2. Copy the overlay.txt file to the root directory of the internal storage of the MDT device.

3. Download overlay

　　Open the phone app，Dial *#*#420#*#* to enter the remote upgrade interface，

Click upgrade →Click upgrade Choose overlay.txt to download→ After the overlay download is successful, click the reboot button to restart the camera hub.

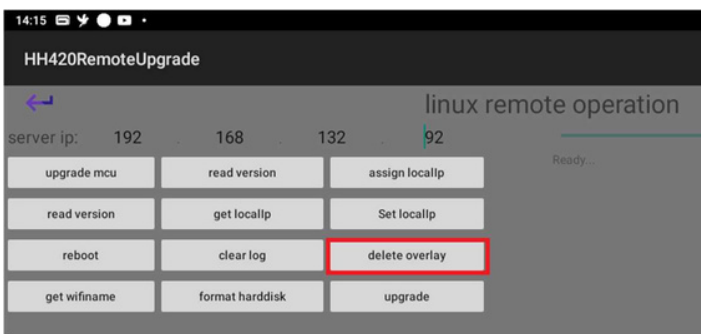4. It can be displayed on videos of MDT device and VLC player.

01-01-1970 02:17:24 UTC-0800 Front RF68LG933

5. Delete overlay

Open the phone app→ Dial *#*#420#*#* to enter the remote upgrade interface→ Click delete overlay

Request Video Application

Install the Request Video APK to the MDT device and open it, then put the device to the cradle to connect the Camera Hub HH421.

1. Request video in the MDT device.

1) Click the get video key.

2) Set the start time and duration time.

3) Choose video channels (ch1, ch2, ch3, ch4).

4) Click the read key to request video.
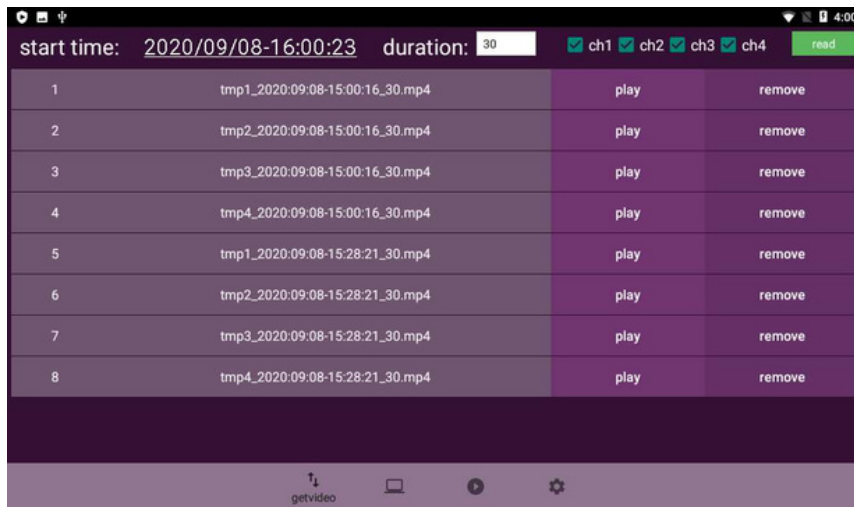
5)The video will be played on the VLC player when press the play key.
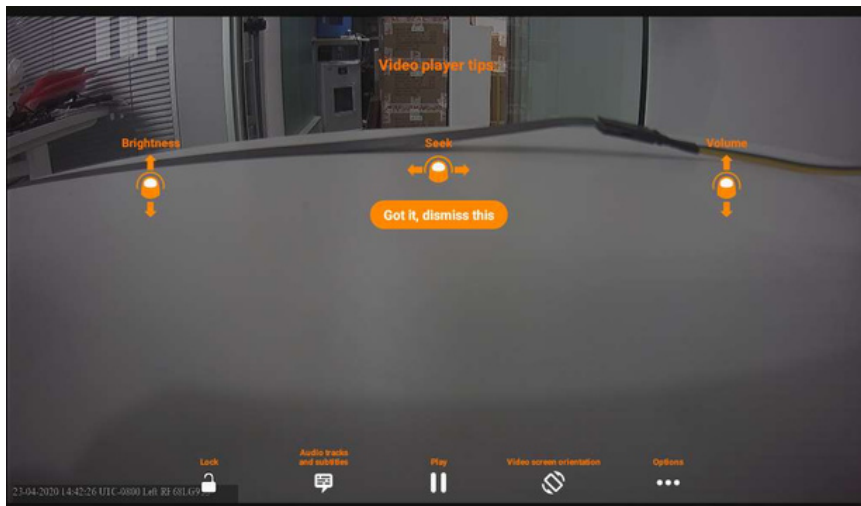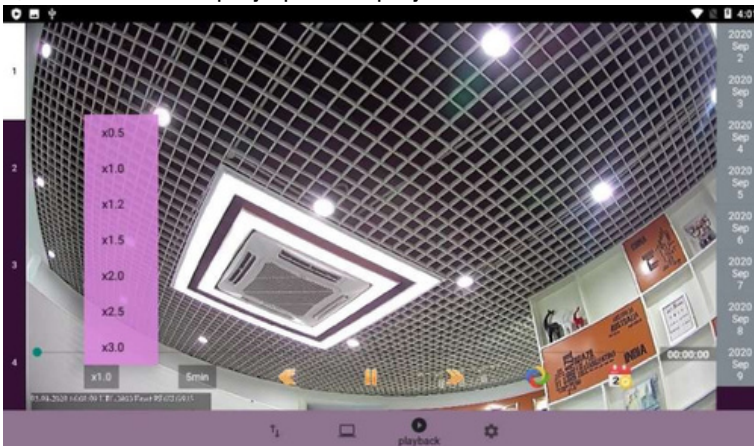
2. Preview Video
1) Press preview key to see the live video.
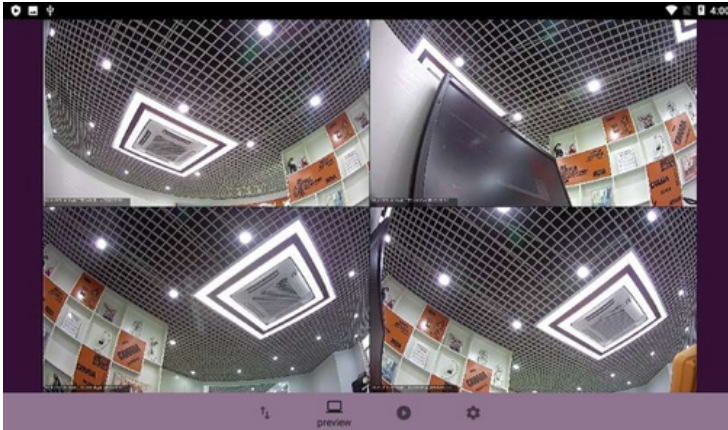
3. Playback
1) Press playback key to review recorded video.
2) Press 1,2,3,4 key on the left side of the screen to choose video channel.
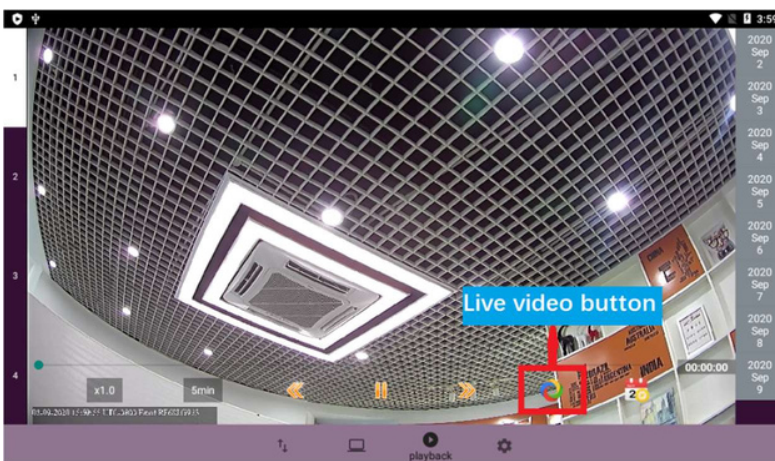3) Press the date key on the right side of the screen to select the video to playback.
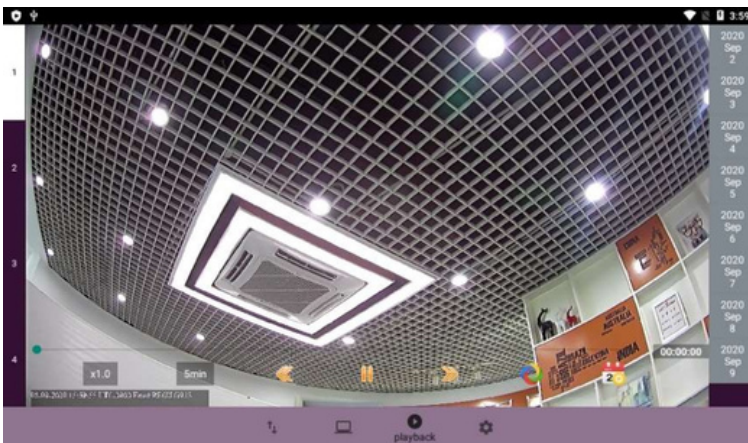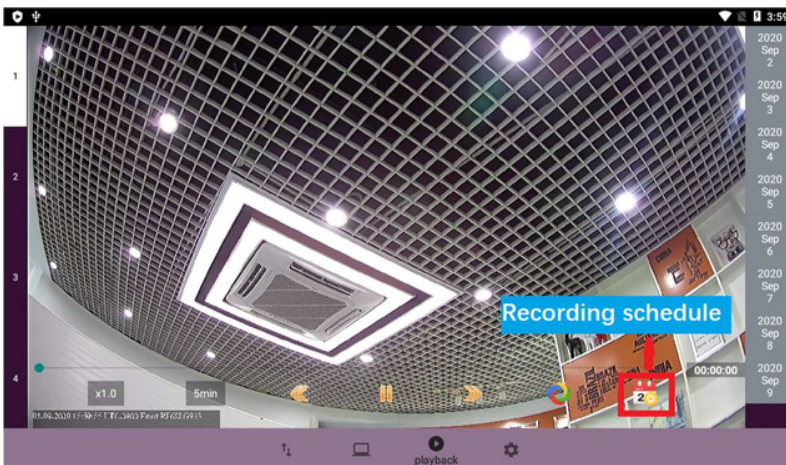

4) Select different play speed to playback video.

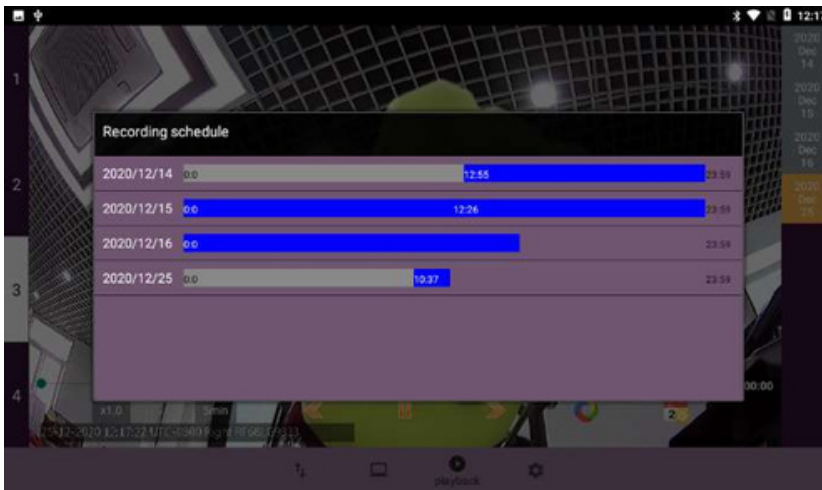5) Select the seek time, and press fast forward and fast back buttons to playback video.
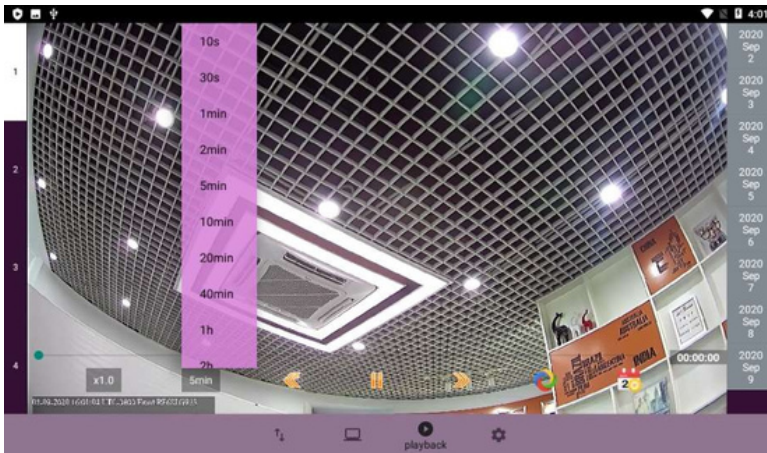
6) Click this button to view the live video.

7) Click this button to view the time period for recording video.

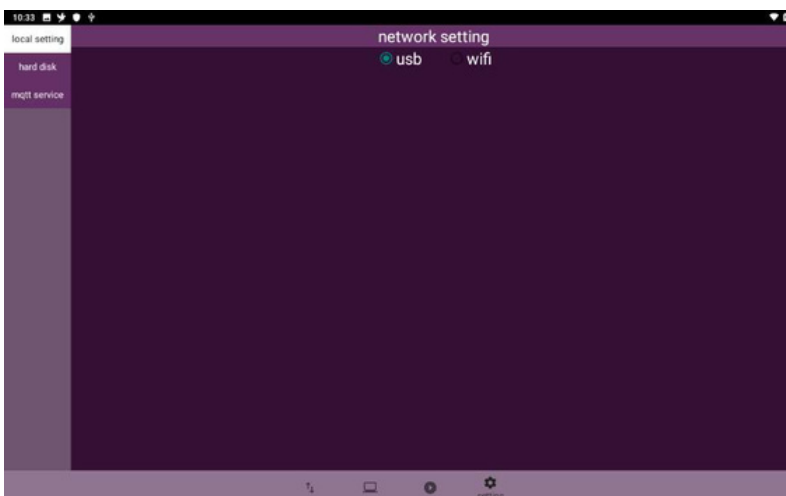8) Check the Recording schedule.

4. Video file export path on the MDT.

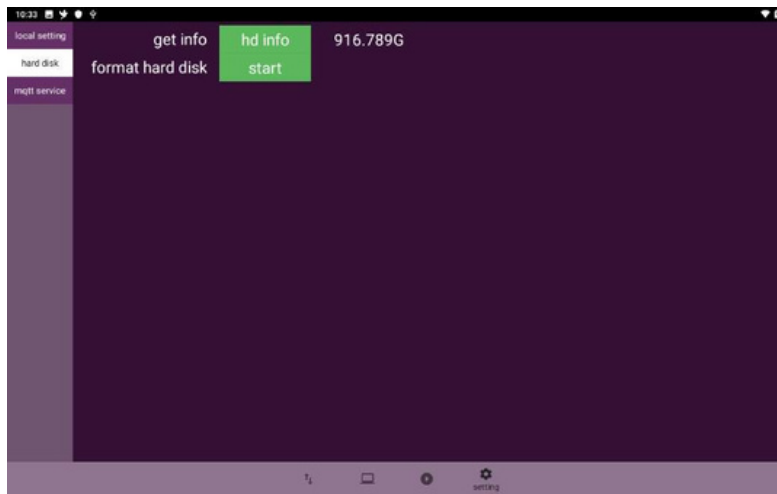\Internal shared storage \Android \data \hk.topicon.requestvideo \files \videos
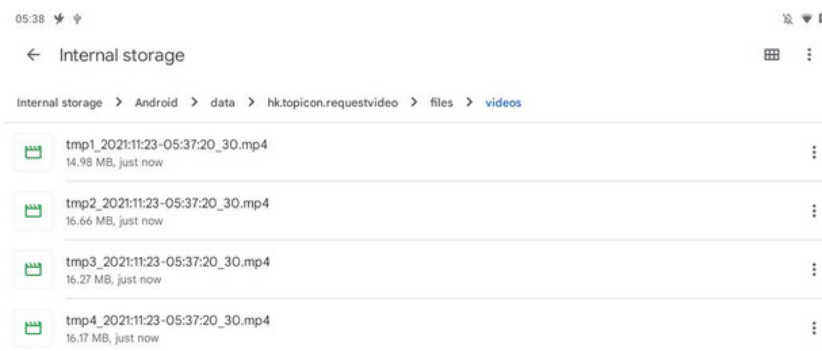
5. Setting
1) Local setting: default USB mode, but WiFi mode is not available.

2) Hard disk: click get info to check the size of the hard disk memory, but the format feature is not available.
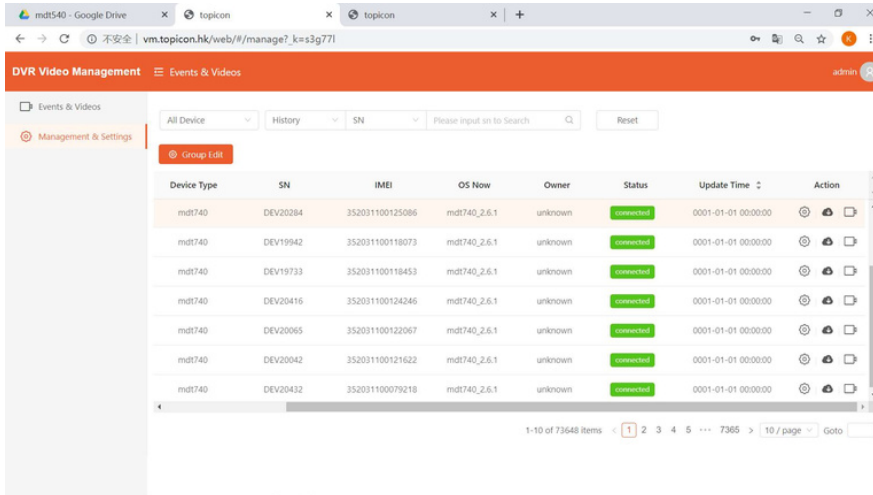

3) MQTT service: MQTT service will be opened automatically when the MDT device restarts, and the device can communicate with the video server when the MQTT is opened.
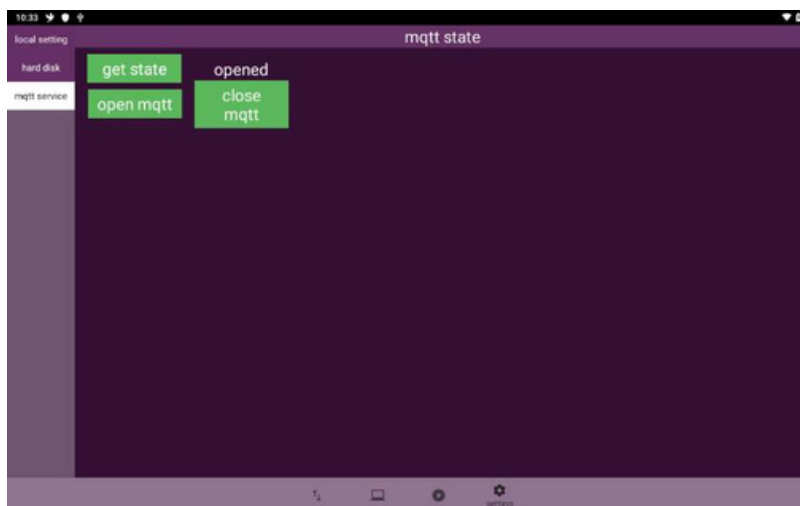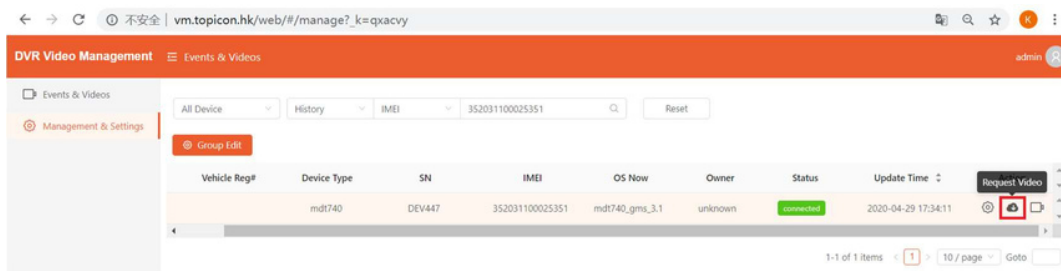
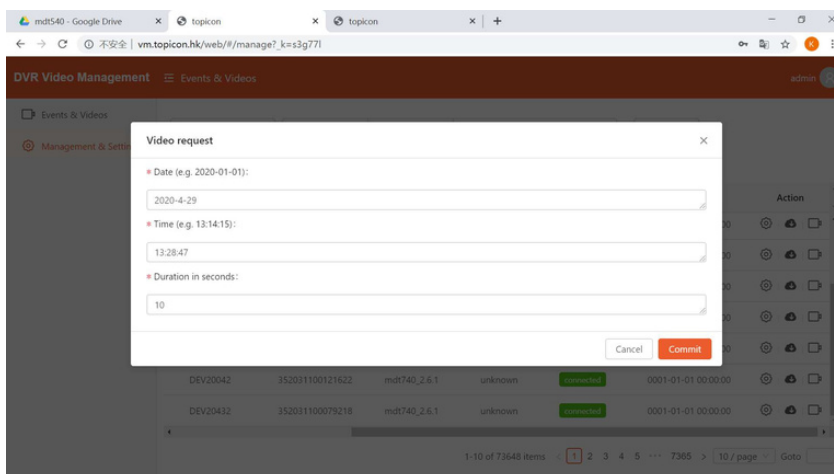# Request video in PaceBlade Video server

1. Open the DVR Video management website: https://vm.topicon.hk/web/#/login
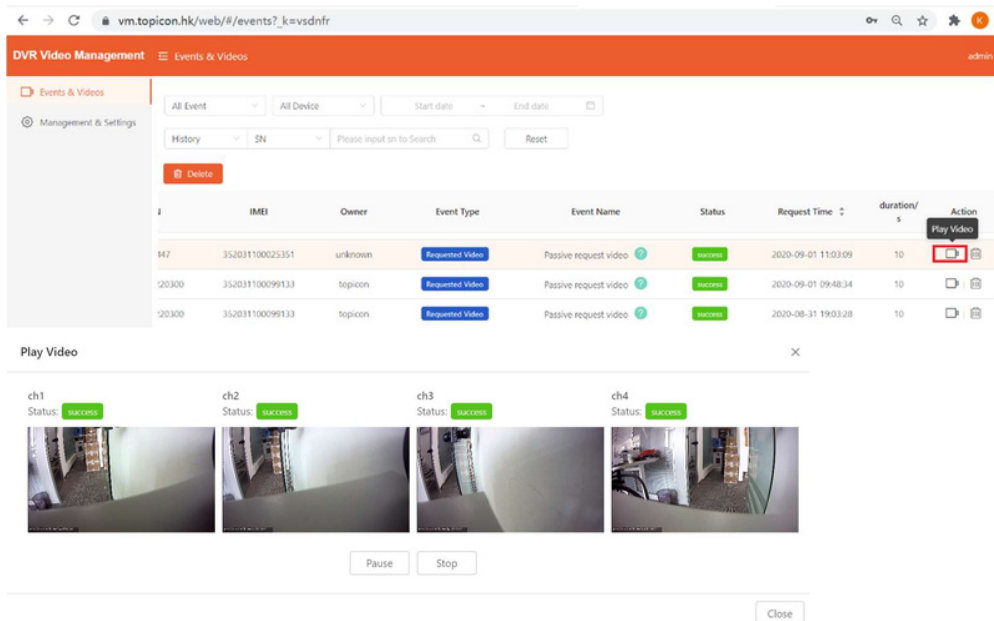

2. Click this icon ⬇ to request video on the server.

3. Set the date time and duration of the requested video.

4. Click Events & Videos and then click this icon to play video

5. Click Management & Settings and then click this icon to live video.

Recording file size and recording duration

camera	720p	960p	1080p
Bitrate	3M	1M	4M
Hard disk size	512G	1T	2T
Max video file size	100G	200G	400G
720p record time	3day	6day	12day
960p record time	9day	18day	36day
1080p record time	2.2day	4.5day	9day

FileSize = hardDiskSize / 5

RecordTime = fileSize x 8 / Bitrate

LED definition for HH421_V50

LED1 status	Hard Disk status
The blue light is on	Hard Disk mounted normally, recording video.
The blue light blinking	Hard Disk formatting
The purple light is on	No video was recorded, it may be that the time on the camera hub is not calibrated, it needs to remove the device from the cradle and put it back, it will automatically calibrate the time.
The purple light blinking	If the time on the tablet is less than the camera hub, no video is recorded for a short time until normal returns after time synchronization.
The red light is on	Hard Disk is not installed or not identified.
The red light blinking	Hard Disk failure, unable to write data.
LED2 status	Camera hub status
The blue light is on	The tablet has been connected to the camera hub and the communication is normal.
The blue light blinking	Upgrading the firmware to the camera hub.
The purple light is on	Ignition off, waiting to shut down
The red light is on	The tablet is not connected to the camera hub