

# QUICK START GUIDE

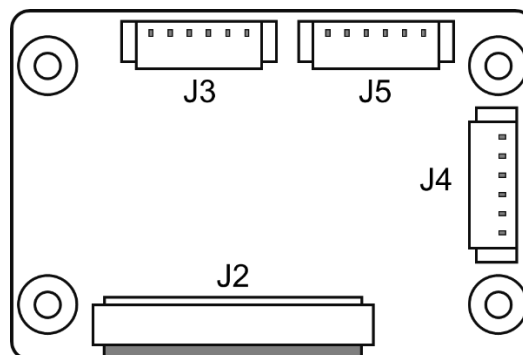
## HARRIER 23x AF-ZOOM IP 4K CAMERA

### Introduction

This guide is designed to get you quickly up and running with the **Harrier 23x AF-Zoom IP 4K Camera** (AS-CAM-23IP4K-A). This document should be read in conjunction with the datasheet and technical reference manual for the Harrier 23x AF-Zoom IP 4K Camera. The camera is shipped with a fixed IP address of 192.168.1.108; this can be changed once you have connected to the camera.



**Figure 1.**  
**Harrier 23x AF-Zoom IP 4K Camera**



**Figure 2.**  
**Harrier 23IP4K Camera Evaluation Board**

### Evaluation Kit Contents

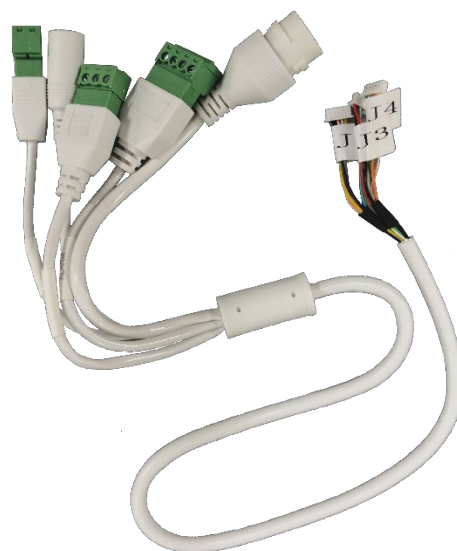
The Evaluation Kit for the Harrier 23IP4K Camera (AS-CAM-23IP4K-EVAL-A) contains all the parts needed to evaluate the Harrier 23x AF-Zoom IP 4K Camera. Note that the evaluation kit does not include a camera, this needs to be ordered separately.

Please check that you have all the parts listed below:

- Harrier 23IP4K Camera Evaluation Board (see Figures 2 and 3).
- Fixing posts and screws to mount evaluation board on to the camera.
- Multi-way evaluation cable (see Figure 4).
- 36-way 0.5mm pitch FFC cable
- 12V multi-standard power supply and mains socket adapters.



**Figure 3. Harrier 23IP4K Camera Evaluation Board**



**Figure 4. Multi-way evaluation cable**

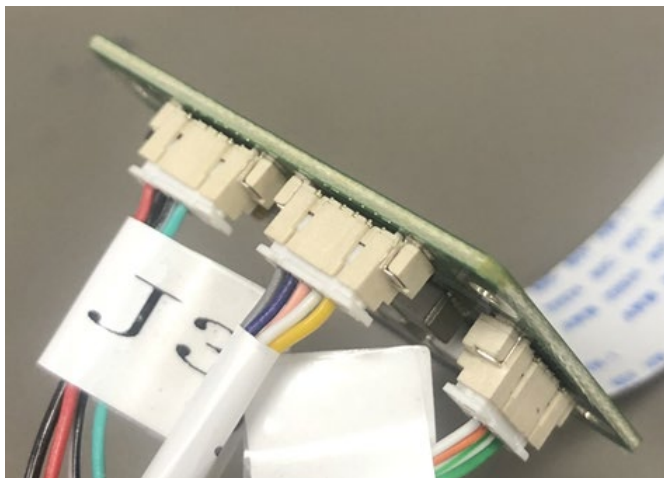
### Mounting the Evaluation Board on the Camera (optional)

1. Connect the Harrier 23IP4K Camera Evaluation Board (J2) to the camera (J2) using the 36-way 0.5mm pitch FFC cable. Ensure that the cable is connected the right way round. The metal contacts should face towards the PCB.
2. Screw the mounting posts into the back of the camera.
3. Using the screws, carefully mount the Harrier 23IP4K Camera Evaluation Board to the camera. Without creasing the FFC cable, gently fold the FFC cable between the evaluation board and the camera so it does not protrude excessively.

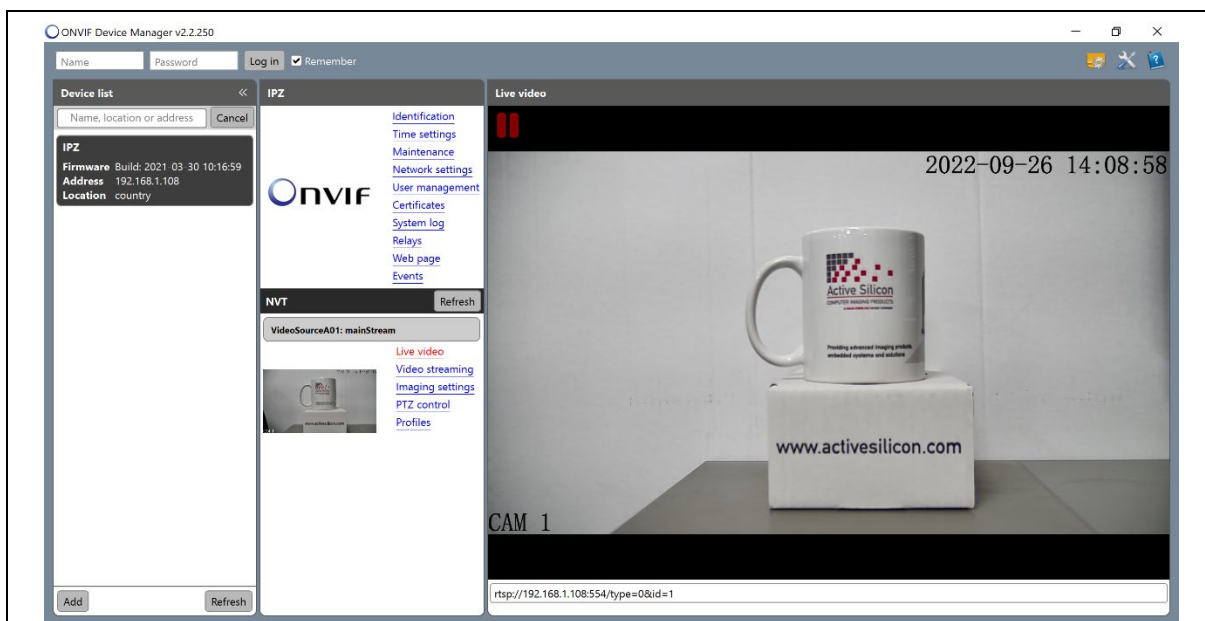
## Quick Start

1. Download and install the [ONVIF Device Manager](https://sourceforge.net/projects/onvifdm/) from <https://sourceforge.net/projects/onvifdm/>
2. Configure the network adapter on a PC to have an address of 192.168.1.1 (or similar).
3. Connect the J3 connector of the multi-way cable to socket J3 on the evaluation board. Double check that the J3 cable is in the right socket (J3 cable has red and black wires, see Figure 5).
4. Connect the cable labelled J4 to socket J4 on the evaluation board (see Figure 5).
5. Connect the cable labelled J5 to socket J5 on the evaluation board (see Figure 5).
6. Using a Cat5/6 RJ45 cable, connect the RJ45/Ethernet port of the multi-way evaluation cable to the network adapter of the PC.
7. Connect the 12V power supply to the barrel connector of the multi-way cable.
8. When you are ready the power supply can be plugged in and switched on, the camera will start up. After a while the camera will have initialized and a blinking LED on the PC ethernet port will indicate network activity.
9. On the PC, open the ONVIF Device Manager and use it to locate the camera. Click the Refresh button and the camera will appear on the Device List with the IP address 192.168.1.108.
10. Open the connection to the camera by clicking on the box in the left-hand pane that shows the camera and its IP address. The panes on the right will populate and show a video preview image and camera stream settings.
11. By clicking on the **Live video** menu option, you can view the streaming video from the camera (see Figure 6).  
If you select the **Video streaming** option on the menu you will also be able to change the resolution and frame rate of the video stream (make the selection, then click on **Apply**, see Figure 7.).  
Note: selecting 3840x2160 resolution requires a reasonably high-performance PC as the video has to be decoded and re-scaled for display.  
Sometimes when the camera first starts up the ONVIF Device Manager will not display 3840x2160 live video; if this is the case try selecting 1080p resolution then changing back to 3840x2160.
12. If the PTZ control menu option is selected, the camera can be zoomed using the Zoom +/- buttons on the screen.
13. The video stream can also be opened using a media player application (e.g. VLC media player or GStreamer). Use **rtsp://192.168.1.108:554/type=0&id=1** to connect to the camera.

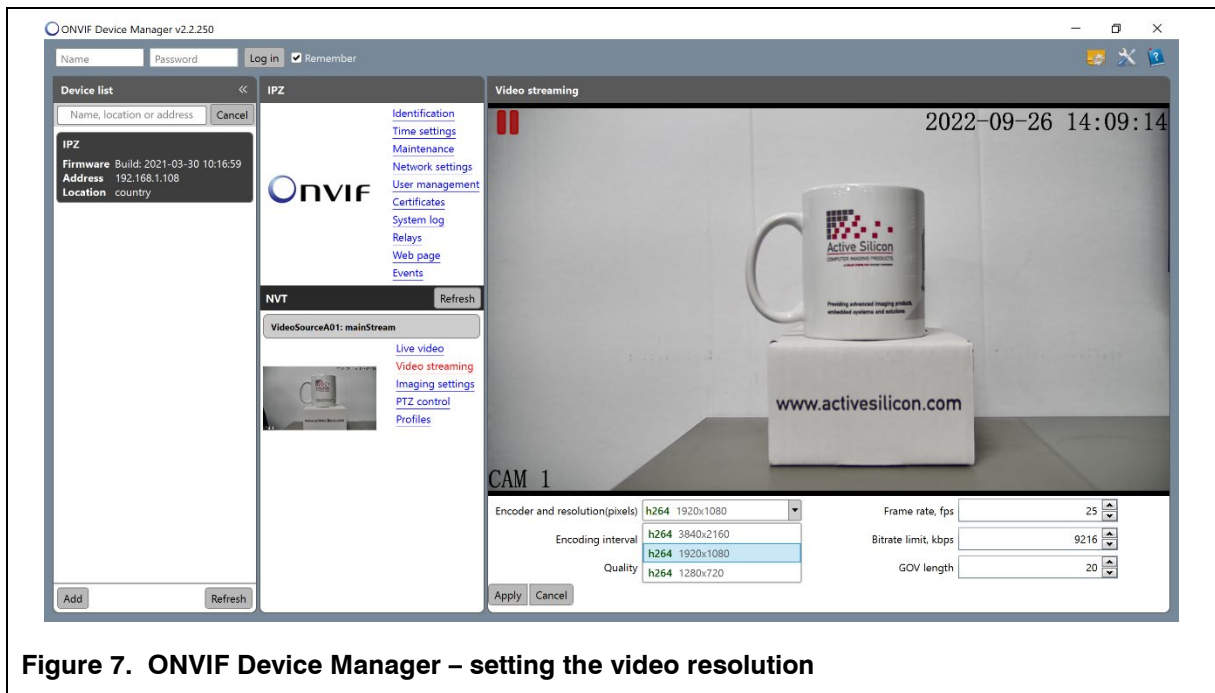
E.g. for VLC media player: Select the Media menu, select Open Network Stream.  
In the Open Media dialog, enter **rtsp://192.168.1.108:554/type=0&id=1**.  
Click the Play button.



**Figure 5. Multi-way evaluation cable correctly connected to the evaluation board.**



**Figure 6. ONVIF Device Manager video streaming screen**

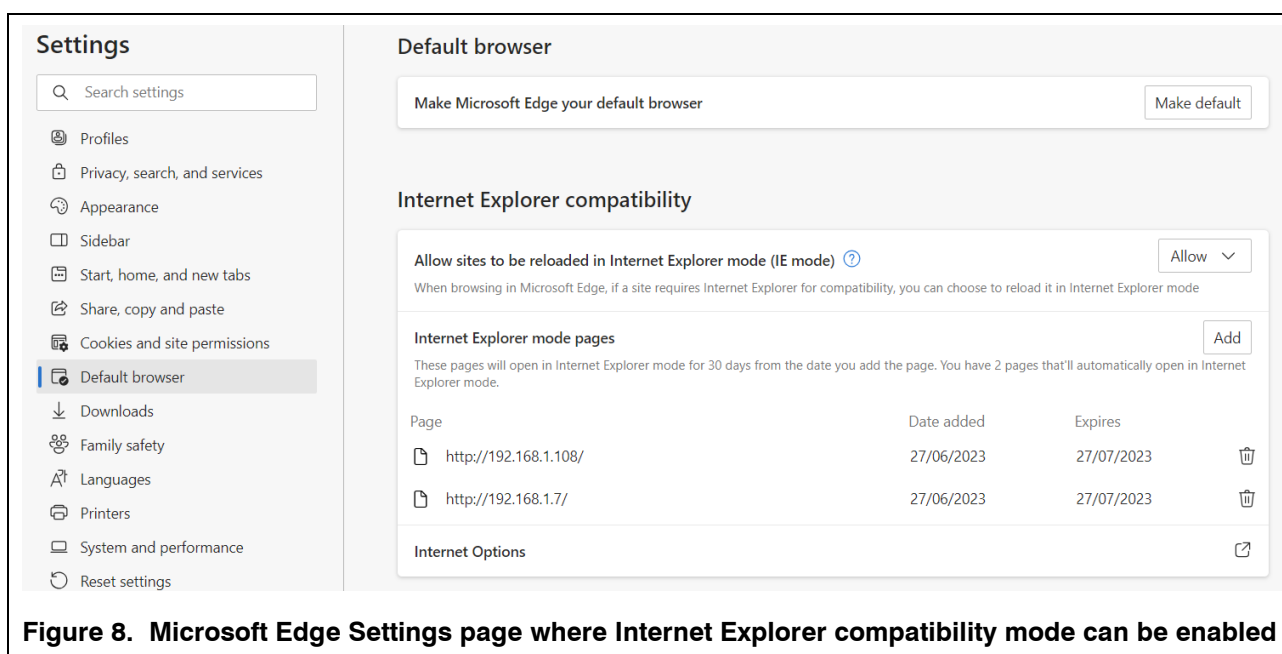


**Figure 7. ONVIF Device Manager – setting the video resolution**

## Web Browser Compatibility

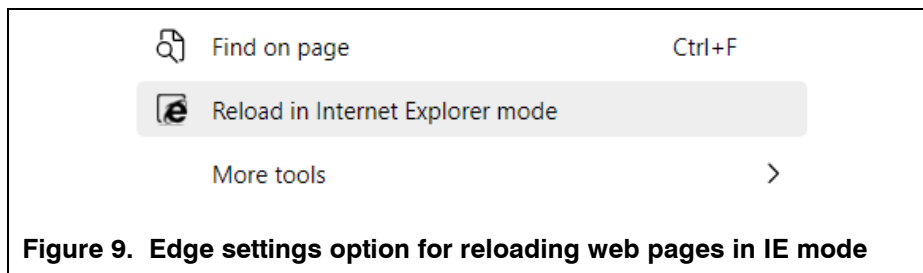
The current camera firmware was designed for use with Internet Explorer and relies on an Internet Explorer plug-in that is downloaded from the camera. This means that the camera demo web page is unlikely to work properly in other browsers. Fortunately, the Microsoft Edge browser can be set into Internet Explorer compatibility mode:

- Open Edge.
- Open Settings.
- Select the Default browser section.
- Under Internet Explorer compatibility set 'Allow sites to be reloaded in Internet Explorer mode (IE mode)' to 'Allow'.
- You can then 'Add' the camera IP address to the list of Internet Explorer mode pages.



**Figure 8. Microsoft Edge Settings page where Internet Explorer compatibility mode can be enabled**

Once IE mode has been enabled, you can open the Edge settings panel (click on the three dots) and select 'Reload in Internet Explorer' for any site. If you added the camera IP address to the Default Browser settings, this will happen automatically whenever you open the camera demo web page.



**Figure 9. Edge settings option for reloading web pages in IE mode**

## Opening the Camera Demo Web page

Open Internet Explorer (or Edge in Internet Explorer mode) and browse to the IP address of the camera. A login page will open.

To display video the web page requires an ActiveX plug-in that is downloaded from the camera. This plug-in works with Internet Explorer (or Edge in Internet Explorer mode) but may not work with other web browsers.

On the login dialog you will see 'Plug-in Download'. If you have not done this before, click on the option to download and install the file: Setup.msi.



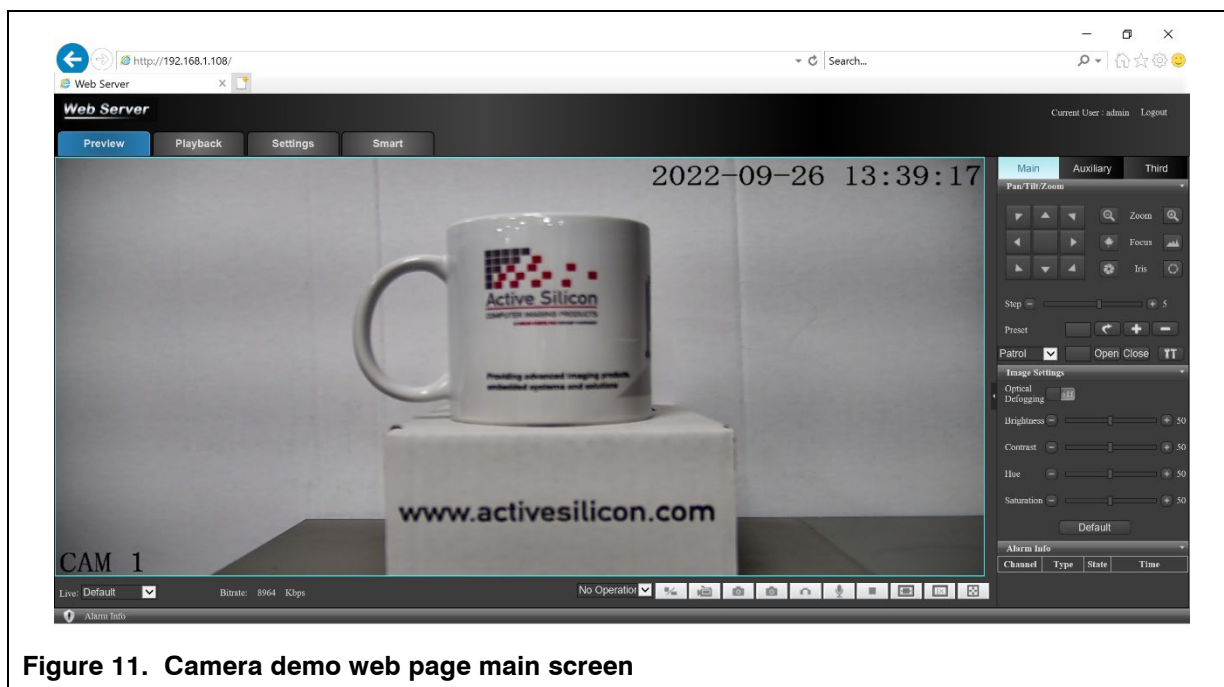
Figure 10. Camera demo web page login dialog

Once the plug-in is installed you can log in:

User: **admin**

Password: **password123** or **123456**

This will open the demonstration web page where you can control the camera and change the camera settings.



**Figure 11. Camera demo web page main screen**

## Changing the Network Address

The network address can be changed using ONVIF Device Manager or the camera web page. Care must be taken when changing the address to ensure that you are always able to find the camera.

To change the network address using ONVIF Device Manager (see Figure 12):

- Open/connect to the camera by clicking on the box in the left hand panel.
- Select 'Network settings' in the centre panel and edit the settings.
- Select 'Apply' and the settings on the camera will change – note you will need to refresh the view as the camera will now be at a different IP address.

To change the network address using the Camera demo web page (see Figure 13):

- Log in to the camera demo web page
- Select the 'Settings' tab
- Select the 'Network Settings' option from the menu on the left and edit the settings.
- Select 'Apply' and the settings on the camera will change – note you will need to reconnect to the camera as it will now be at a different IP address.

For more information, please refer to the Camera Technical Reference Manual.



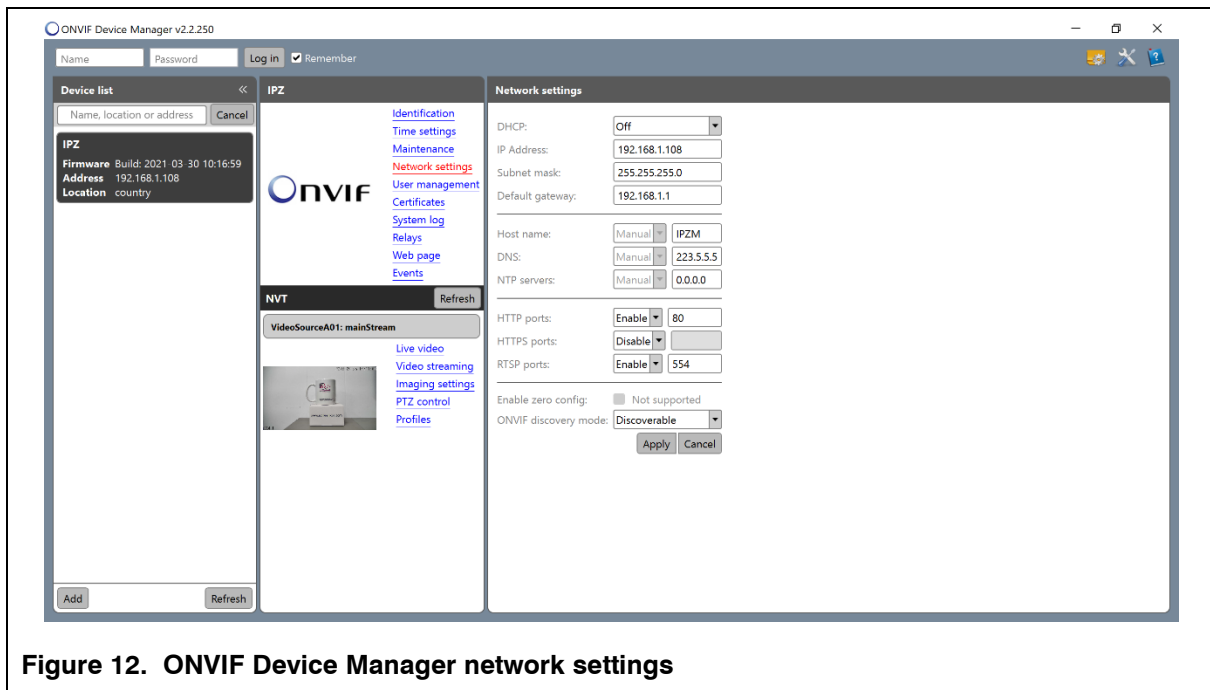


Figure 12. ONVIF Device Manager network settings

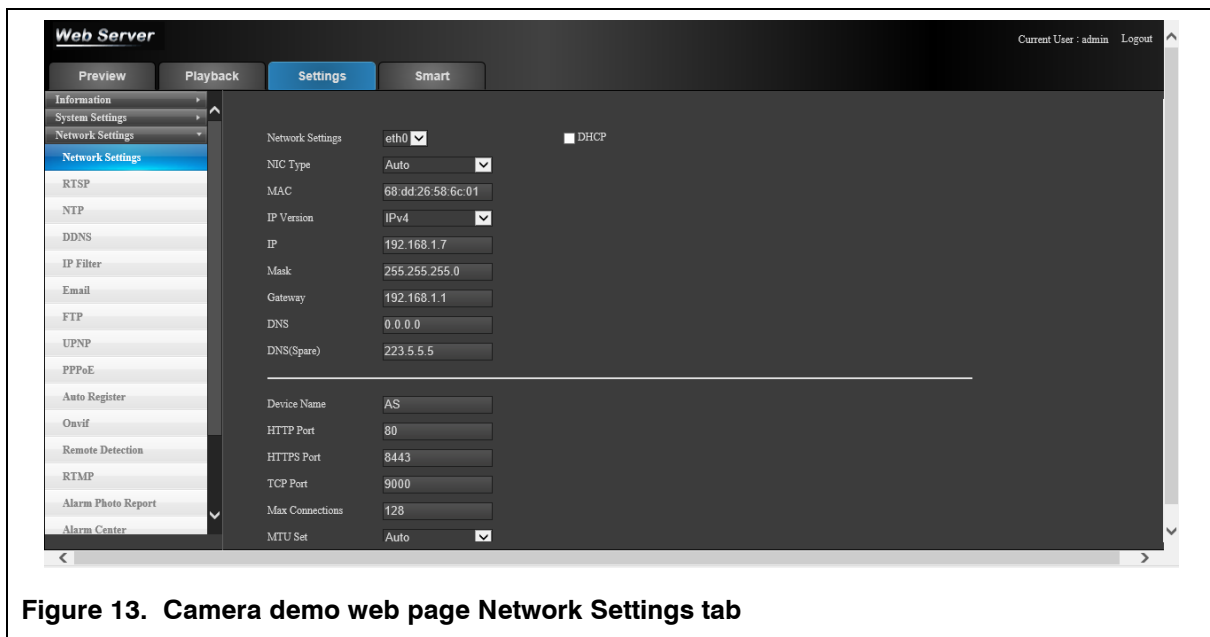


Figure 13. Camera demo web page Network Settings tab

## SD Card Recording

Applications should use the ONVIF service to control the recording, but the demo web page can also be used to set up recording on the SD card.

- Insert an SD card into the camera.
- Open the camera demo web page and log in.
- Open the 'Settings' tab and select 'Storage Settings' -> 'Disk Manager'.
- Click on 'Refresh' and select the SD card (it will be listed as a hard drive).
- Select 'Format' and accept the prompts.
- The camera will re-boot, log in again and re-select the 'Disk Manager' to check that the card is formatted correctly.
- Select 'Record Settings'.
- The demo page has been designed to emulate a security system and can be set to operate at set periods of time or with alarms.
- Set the 'General' tick box on Period 1, a green line will appear in the display for Sunday.
- Set the 'Copy To All' tick box, the green line will now appear on all days. Click on the 'Save' button. This has now enabled 24 hour/7 days a week recording.
- Go to the 'Disk Manager' or 'Information' -> 'Disk Information' and you will see that the free space is slowly going down as the camera records the video to the SD card.
- To stop the recording return to 'Storage Settings' -> 'Record Settings' and use the 'Reset All' button to clear the recording schedule then click on 'Save'.

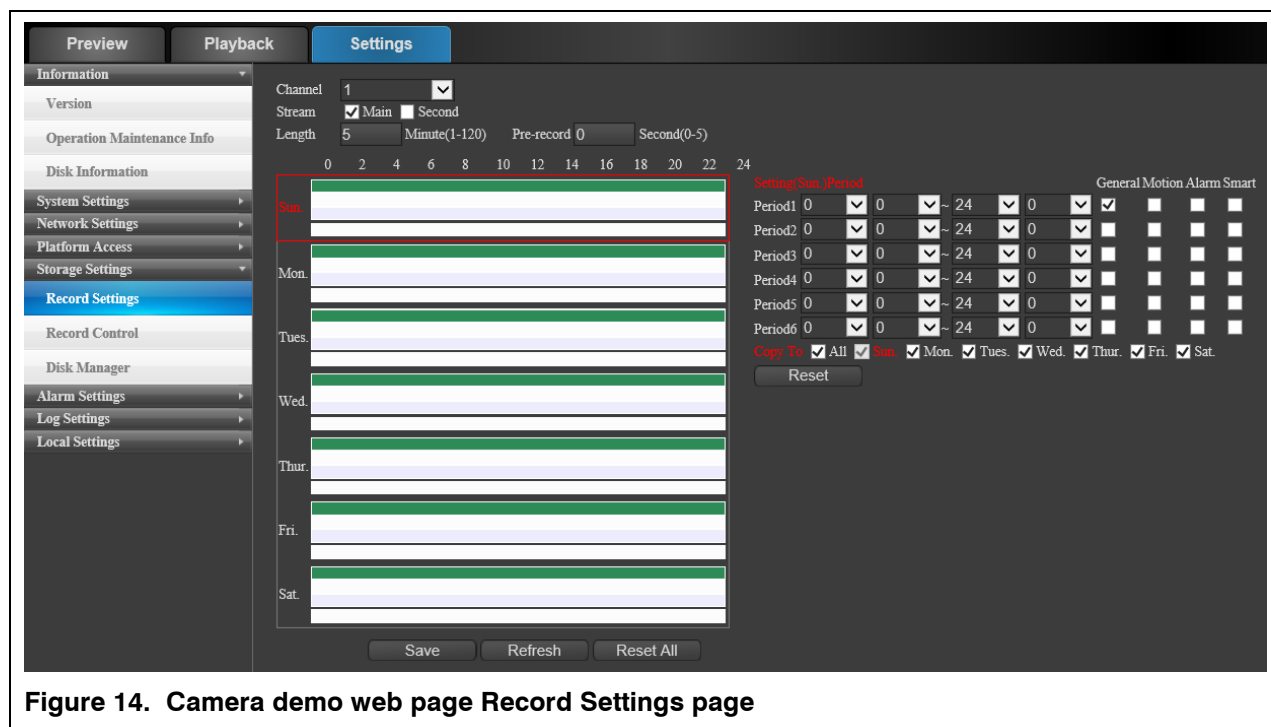
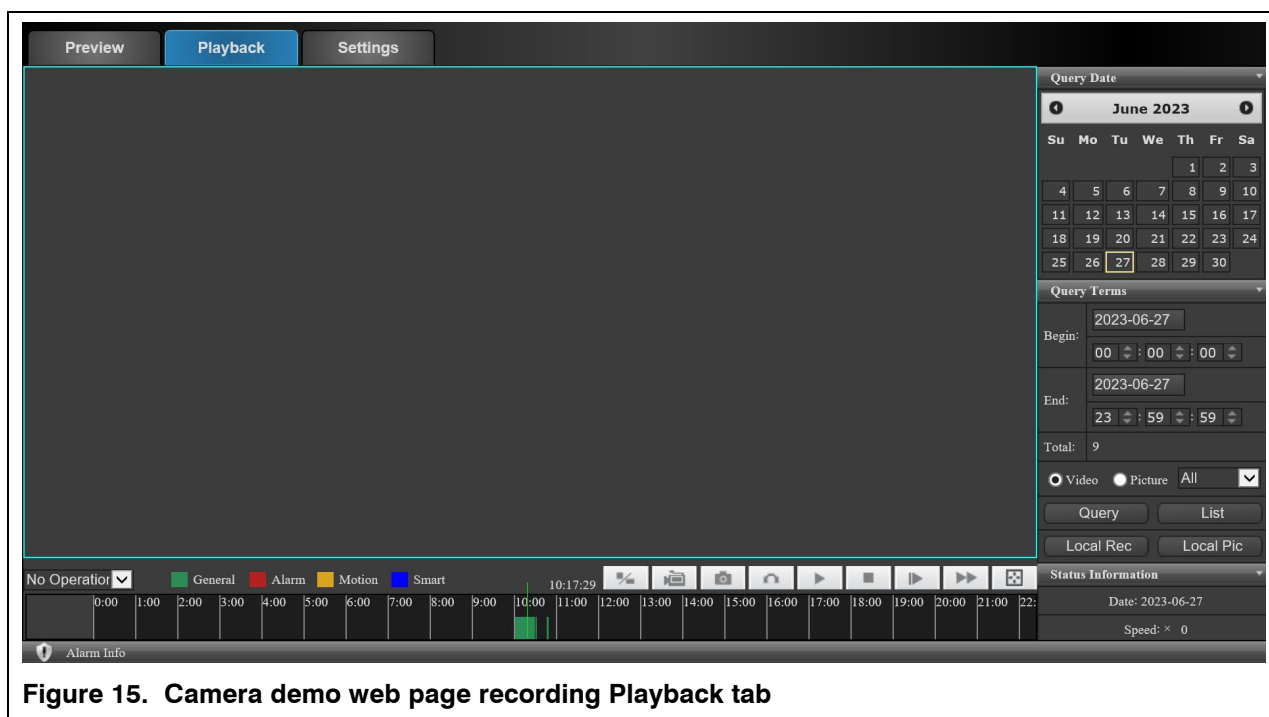


Figure 14. Camera demo web page Record Settings page

To view the recordings:

- Select the Playback tab.
- Click on the 'Query Terms'-'>'Query' button.
- The timetable row/bar at the bottom of the frame will update to show the times where recordings have been made (shown in green).
- Click on and slide the timetable row/bar until the recoding region you want to view is under the green maker line shown at the centre of the timetable row/bar.
- Click on the play button and the recording will be played back to the display.



**Figure 15. Camera demo web page recording Playback tab**

## Downloads

ONVIF reference documentation: <https://www.onvif.org/resources/>

ONVIF Device Manager: <https://sourceforge.net/projects/onvifdm/>

VLC: <https://www.videolan.org/vlc/index.en-GB.html>

GStreamer: <https://gstreamer.freedesktop.org/download/>

## Technical Support

In case of any issues, please contact Active Silicon Technical Support by email on [techsupport@activesilicon.com](mailto:techsupport@activesilicon.com).



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