

QUICKSTART GUIDE

ORIOLE HD-IP BOARD CAMERA

Introduction

This guide is designed to get you quickly up and running with the **Oriole HD-IP Board Camera** (AS-BCAM-IP32-001-A). This document should be read in conjunction with the technical reference manual for the Oriole HD-IP Board Camera. By default, the IP address of the camera is set by DHCP, so to connect to the IP camera your initial network setup must have a DHCP server installed and running (see below). This setting can be easily changed once you have connected to the IP camera.

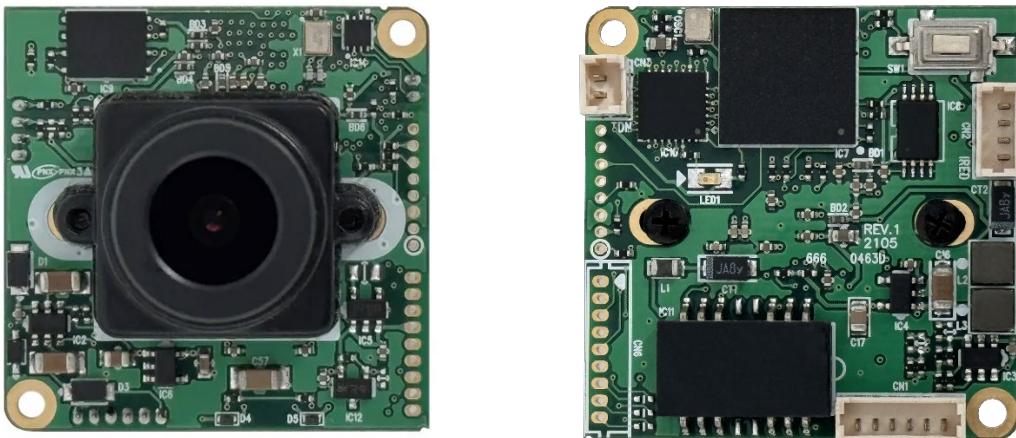


Figure 1. Front and rear of Oriole HD-IP Board Camera



Figure 2. Oriole HD-IP Board Camera Ethernet/Power adapter cable

The camera is supplied with an adapter cable that has a standard 10/100 RJ45 socket and a barrel socket (2.1mm x 5.5mm Centre Positive)

This product contains electrostatic sensitive devices, to prevent damage to the board when handling you must take precautions against electrostatic discharge.



Quick Start

1. On the host PC, prepare an application that can view rtsp/ONVIF video streams.
For example you can download and install the [ONVIF Device Manager](http://sourceforge.net/projects/onvifdm/) from <https://sourceforge.net/projects/onvifdm/>
2. To be able to scan for the camera on the network, download and install Advanced IP scanner from <http://www.advanced-ip-scanner.com>
3. Ensure that the network connection you are using is running a DHCP server.
For point to point Ethernet connections, a DHCP server application can be downloaded from <https://pjo2.github.io/tftpd64/>.
Install the DHCP server and set it up so that it will assign IP addresses from the network interface card that the IP camera will be connected to. This means that the IP camera will be able to request an IP address from the DHCP server application.
4. Connect the Ethernet/Power adapter to CN1 of the Oriole HD-IP Board Camera.
5. Connect the camera to a live network by plugging in an RJ45 cable to the RJ45 socket of the Ethernet/Power adapter.
6. Connect the 12V power supply ($\geq 200\text{mA}$, centre positive) to the barrel connector socket of the Ethernet/Power adapter. Turn on the power supply. When the camera has started, the blue LED on the rear of the camera will illuminate.
7. Using Advanced IP scanner or by checking the DHCP server, get the IP address of the camera
8. On the Host PC, open the Microsoft Edge or Chrome browser and enter the camera IP address.
9. The camera configuration website will open, and you will see a login prompt (Figure 3).
10. Login using user: **admin** password: **admin**
11. You should change the default password before using the camera in a product.
12. You should now see a video preview from the camera (Active X support required).
13. If necessary, you can browse to the Basic->Network page and assign a static DHCP address (see Figure 7). Remember to click on **Submit** to update the settings before moving on.
14. On the host PC, open the ONVIF Device Manager application and use it to locate the camera.
Click the Refresh button and the camera will appear on the Device List at the camera's IP address.
15. Enter the login details into the dialog boxes at the top left-hand corner of the ONVIF Device manager application.
16. 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 an options menu.
17. By clicking on the **Live video** menu option, you can connect to the camera and view the streaming video (see Figure 5).
Selecting the **Profiles** option on the menu will allow you to select between the different video streams served by the camera.
18. The streaming settings (bitrate, GOV length) can be changed in ONVIF Device Manager.
19. To change any other camera settings, use the Camera Configuration web page.
20. The video stream can also be opened using a media player application (e.g. VLC media player or GStreamer).
Use **rtsp://<IP_ADDRESS>:554/stream0** 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://192.168.189.5:554/stream0`
Click the Play button.

IP Camera Web Viewer/Settings

Login



User ID :

Password :

Model Name :	ASBCAM-IP32001A
IP Address :	192.168.189.5
MAC Address :	00 15 dc 00 ee b9
Serial Number :	L2061113

Figure 3. Camera configuration website – login dialogs



IP Camera Settings

LOGOUT

Basic > Codec Information

Basic

- Network
- User
- Codec**
- Date/Time

Camera

Network

System

Video Information

submit

Sensor Name	IMX307
Max Resolution	1920 x 1080
Max FPS	25FPS
Output Mode	25FPS Normal

RTSP Port [1~65535]

H264 Resolution

H.264 Quality [0~51]

H.264 GOP(IDR) [1~240]

H.264 FPS

Bitrate Control OFF VBR CBR

H.264 Bitrate

H.264 2ch Resolution

H.264 2ch Quality [0~51]

H.264 2ch GOP(IDR) [1~240]

H.264 2ch FPS

Bitrate Control OFF VBR CBR

H.264 2ch Bitrate

M-JPEG Resolution

M-JPEG Quality [0~99]

M-JPEG FPS

Bitrate Control OFF VBR CBR

M-JPEG Bitrate

Figure 4. Camera configuration website – encoding setting view

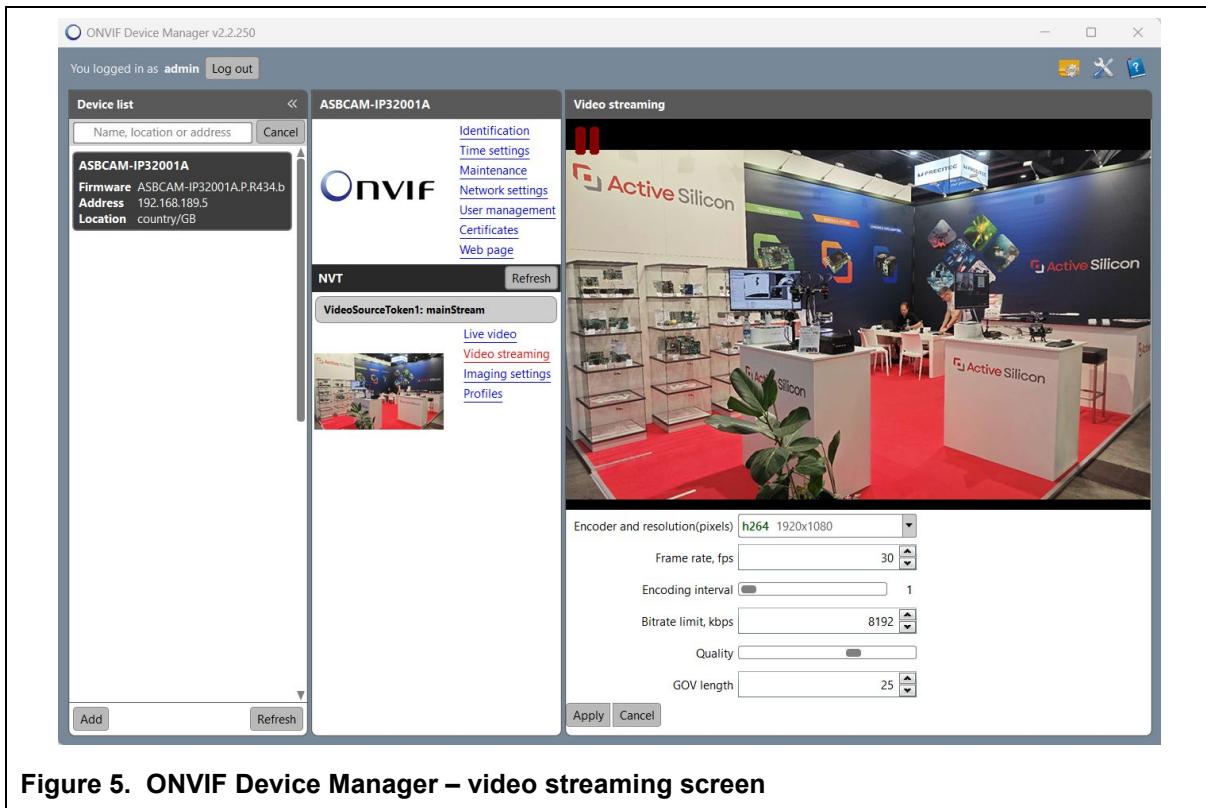


Figure 5. ONVIF Device Manager – video streaming screen

Opening the Camera Configuration Website

Open Microsoft Edge or Chrome and browse to the IP address of the camera. A login page will open (Figure 3). Default login is:

User: **admin**

Password: **admin**

This will open the configuration website where you can change the camera settings.

Changing the Network Address

The network address can be changed using an ONVIF based application (e.g. ONVIF Device Manager) or the camera configuration website. Care must be taken when changing the IP address to ensure that you always know the IP address set and will be able to find the camera on the network.

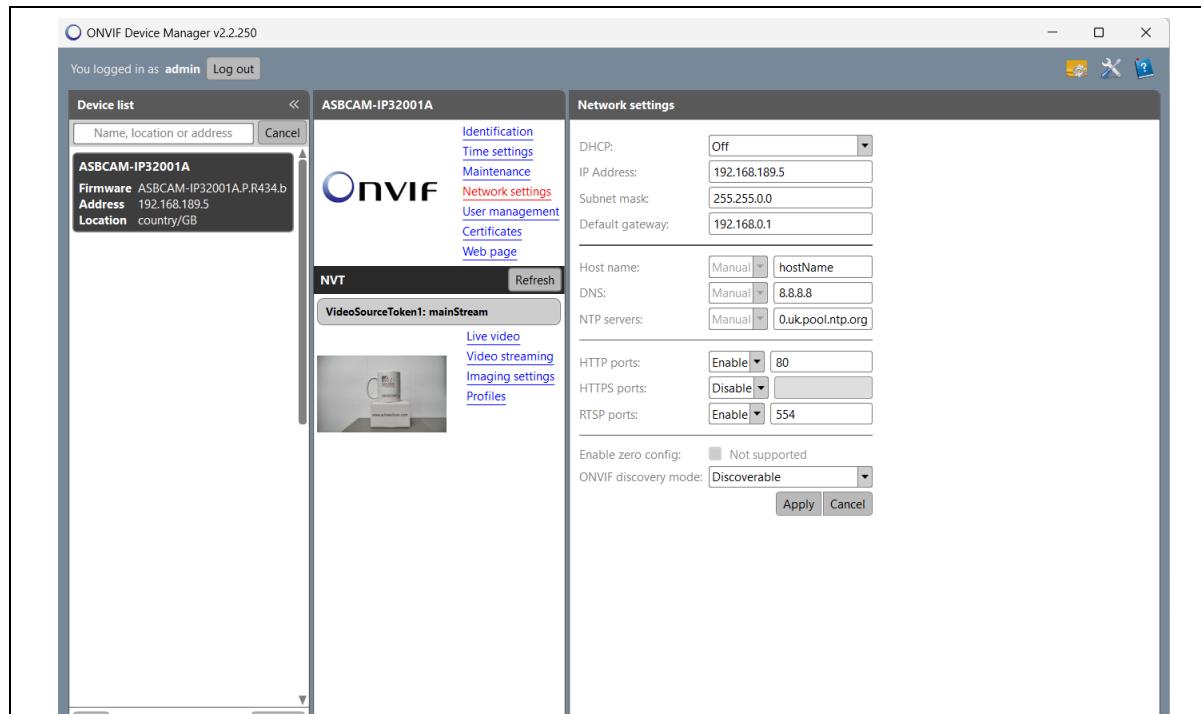


Figure 6. ONVIF Device Manager – Network Settings

To change the network address using ONVIF Device Manager (see Figure 6):

- 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 click on Refresh as the camera will now be at a different IP address.



IP Camera Settings

Basic > Network Information

Basic

Network

User

Codec

Date/Time

Camera

Network

System

LOGOUT

Network Information

IP Address Setup

DHCP Static

IP Address: 192.168.189.5

Subnet Mask: 255.255.255.0

Default Gateway: 192.168.189.2

Primary DNS Server: 208.67.222.222

Secondary DNS Server: 0.0.0.0

WEB Port: 80 [1~65535]

submit

Figure 7. Camera configuration website – Network Settings tab

To change the network address using the camera configuration website (see Figure 7):

- Log in to the camera configuration website
- Select ‘Basic’
- Select the ‘Network’ option from the menu on the left and edit the settings.
- Select ‘Submit’ 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 Technical Reference Manual of the camera.

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/>

Advanced IP scanner: <http://www.advanced-ip-scanner.com>

DHCP server: <https://pjo2.github.io/tftpd64/>

Technical Support

In case of any issues, please contact Active Silicon Technical Support by email on techsupport@activesilicon.com.

***Head Office:***

Active Silicon Ltd
1 Waterside Court, Waterside Drive,
Langley, Berks, SL3 6EZ, UK.

Tel: +44 (0)1753 650600
Email: info@activesilicon.com
Website: www.activesilicon.com

North America Office:

Active Silicon, Inc.
479 Jumpers Hole Road, Suite 301,
Severna Park, MD 21146, USA.

Tel: +1 410-696-7642
Email: sales.us@activesilicon.com
Website: www.activesilicon.com