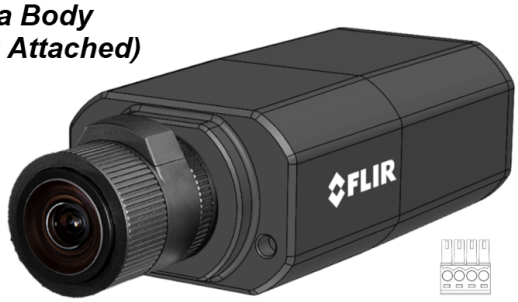
Quasar™ Fixed Box Camera with Edge AI Analytics



Items Included in Kit (images not to scale)

1 Select a Location

Warnings

- Placing a camera in an environment subject to extremely high temperature can result in an explosion or the leakage of flammable liquid or gas.
- Subjecting the camera to extremely low air pressure can result in an explosion or the leakage of flammable liquid or gas.
- The camera must be installed by qualified personnel and the installation should conform to all local codes.

The camera can be mounted outdoors or indoors.

The camera's operating temperature range is -30º C to 55º C (-22º F to 130º F), with no more than 90% non-condensing humidity. A heater is not required.

Tip

To support video analytics (VA), mount the camera so that it can accurately detect and classify objects. For VA mounting and scene considerations, see the camera's installation and user guide.

Make sure you have the required accessories and tools. Make sure that the location provides a suitable method for routing cables to and from the camera.

Supplying Power to the Camera

Source		Max. Power Consumption
UL-listed L.P.S. (Limited Power Supply) unit, rated to a maximum temperature of 60º C	12V DC	10.78 W
	24V AC	11.66 W
IEEE 802.3af, class 0 PoE (Power over Ethernet)	48V DC	12.95 W

For assistance with purchasing a power supply, contact Teledyne FLIR.

2 Attach the Lens

Before viewing video from the camera, attach a supported lens.

The camera kit does not include a lens, which must be purchased separately.

The camera has a CS lens mount. It does not support i-CS lenses.

For information about supported lenses available from Teledyne FLIR, see the camera's installation and user guide.

To attach a supported lens:

a. Remove the plastic insert covering the threaded camera lens mount. Do not touch the sensor or allow dust to accumulate in the lens mount.

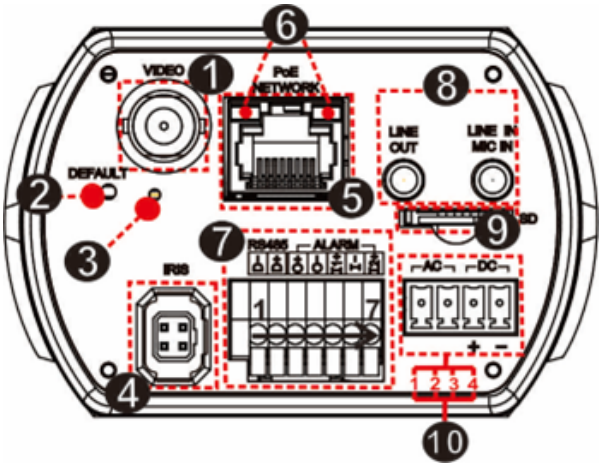
b. Align the lens thread with the lens mount. Then, using a minimal amount of force to prevent cracking the lens body - especially when attaching the longer, larger CF-L408-21-1 9.0-50mm lens - carefully screw the lens onto the mount.

c. Plug the auto iris cable from the lens assembly into the IRIS port of the camera.

3 Connect the Camera

Teledyne FLIR recommends connecting the camera on a bench or in a lab and configuring it for networking before mounting it.

Warning	The camera itself does not have a power on/off switch. Do not supply power to the camera until you have completely finished connecting it.



Connections

Connector		Connection
1	VIDEO	BNC connector for analog video output.
2	DEFAULT Button	To restore the camera to its factory defaults, use a proper tool to press the default button for at least 20 seconds.
3	Power LED	The green power LED indicates power is being supplied to the camera.
4	IRIS	Auto iris lens connection.
5	PoE NETWORK	Attach a Cat 6 cable from the network switch to the RJ-45 connector for a 10/100/1000 Mbps Ethernet and IEEE 802.3af class 0 PoE

Connector		Connection		
		connection. Ethernet is required for streaming video and for configuring the camera.		
6	Network LEDs	The green link LED indicates a good network connection. The orange activity LED flashes to indicate network activity.		
7	Seven-pin I/O terminal block	1	D −	RS-485 connection
		2	D +	
		3	Alarm Out +	Attach wires from external devices to the terminal block connector for alarm in/out according to the pin assignment shown.
		4	Alarm Out −	
		5	Alarm 1 In +	
		6	Alarm In −	
		7	Alarm 2 In +	
		Warning Do not connect an external power supply to the seven-pin I/O terminal block.		
8	LINE OUT	Line-level audio output		
	LINE IN MIC IN	Line-level audio input (mic-level audio input not supported)		
9	microSD Card Slot	For video clip and snapshot recording and file storage, insert a microSD / SDHC / SDXC card (up to 1 TB) in the card slot. When the camera is powered on, do not remove the microSD card.		
10	Four-pin power terminal block	1	24VAC 1	If using a 24V AC or 12V DC power supply, connect the wires to the power terminal block connector according to the pin assignment shown.
		2	24VAC 2	
		3	12VDC -	
		4	12VDC +	

Warning

This product contains a battery that is soldered to the PCB. There is a risk of explosion if the battery is replaced by an incorrect type. **Do not replace the battery.** The battery should be disposed of in accordance with the battery manufacturer's instructions.

4 Configure for Networking

To discover the camera on the network, Teledyne FLIR recommends using the FLIR Discovery Network Assistant (DNA) tool, which does not require a license to use, and is a free download from the Teledyne FLIR website. After downloading the DNA ZIP file, extract it.

You can configure the camera using the DNA tool, the camera's web page, or a supported VMS.

	DNA tool	Camera's web page
Discover camera IP address	•	
Configure IP address, mask, and gateway	•	•
Change user credentials	•	•
Configure DNS settings, MTU, and Ethernet speed		•
Change video format	•	•
Configure more than one camera at the same time	•	

For information about using the DNA tool to configure one or more cameras, see the *DNA User Guide*. While the software is open, click the Help icon .

For information about using the camera's web page to configure the camera, see the camera's installation and user guide. For information about using a supported VMS to configure the camera, see the VMS documentation.

By default, DHCP is enabled on the camera and a DHCP server on the network assigns the camera an IP address. If the camera cannot connect to a DHCP server, the camera's default IP address is 192.168.0.250. For example, if the camera is managed by FLIR Horizon or Meridian VMS and the VMS is configured as a DHCP server, the VMS automatically assigns the camera an IP address.

If the camera is managed by FLIR Latitude VMS or is on a network with static IP addressing, you can manually specify the camera's IP address using the DNA tool or the camera's web page.

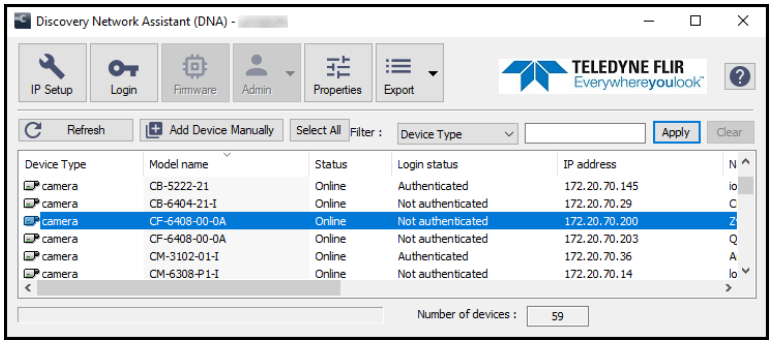
To manually specify the camera's IP address using the DNA tool:

a. Make sure the camera and the PC are on the same LAN segment.

b. Run the DNA tool (DNA.exe) by double-clicking .

   The Discover List appears, showing compatible devices on the LAN segment and their current IP addresses.

c. In the DNA Discover List, verify that the camera's status is Online.

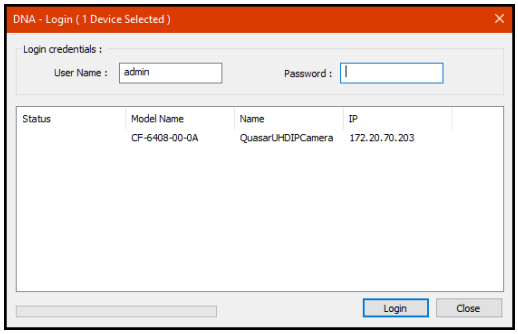


   If this is the first time you are configuring the camera or if it is the first time after resetting the camera to its factory defaults, DNA automatically logs in to the camera with user name *admin and* its default password (*admin*).

If the *admin* user's password is not the default password, you need to authenticate the camera.

1. In the DNA Discover List, select the camera and then click **Login**  .
2. In the **DNA - Login** window, type *admin* or the name of any user assigned Admin privileges; and the password.

   If necessary, contact the person who configured the camera's users.
3. Click **Login**, wait for ✓ Ok status to appear, and then click **Close**.

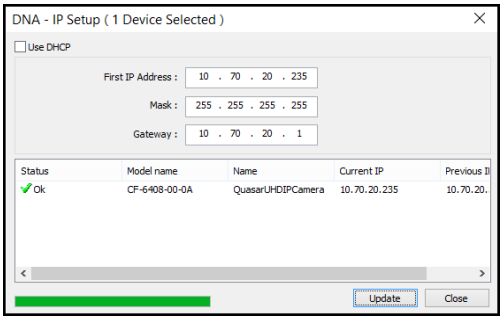


d. Verify that the camera's Login status is Authenticated.

e. Change the camera's IP address.

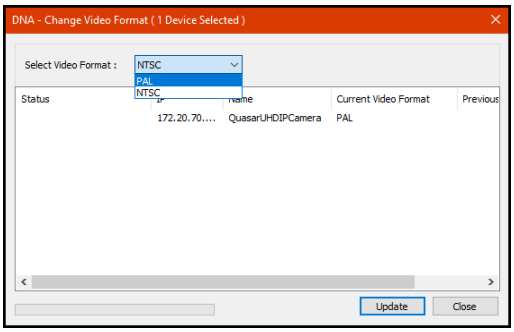
   1. Right-click the camera and select **IP Setup**.
   2. In the **DNA - IP Setup** window, clear *Use DHCP* and specify the camera's *IP address*. You can also specify the *Mask* (default: 255.255.255.0) and *Gateway*.

      Then, click **Update**, wait for ✓ Ok status to appear, and then click **Close**.



5 Change Video Format (Optional)

By default, NTSC is the camera's video format. You can change the camera's video format to PAL using the DNA tool.



a. In the DNA Discover List, right-click the camera and select **Change Video Format**.

b. In the **Change Video Format** window, select PAL. If Shutter WDR 30 FPS NTSC is the camera's current video format, it changes to Shutter WDR 25 FPS PAL. Likewise, if Linear 60 FPS NTSC is the camera's current video format, it changes to Linear 50 FPS PAL.

c. Click **Update**, wait for ✓ Ok status to appear, and then click **Close**.

6 Mount and Connect the Camera

For information about the Teledyne FLIR mounting accessories that support the camera, see the camera's installation and user guide.

According to the installation instructions for the hardware and according to the instructions in Connect the Camera:

- Attach the mounting hardware to the mounting surface.

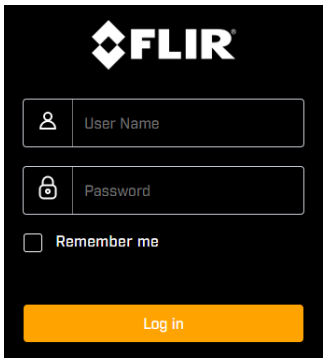
- Attach the camera to the mounting hardware.
- Route the Ethernet and any other cables from the mounting surface to the camera.
- Connect the camera.

The sequence of these steps depends on how you are mounting the camera and the mounting hardware involved.

7 Complete Camera Setup

To complete camera setup — for example, to format the microSD card — you need to access the camera's web page with the default *admin* user or with another user assigned Admin or Expert privileges. The camera web page supports the latest version of Google Chrome® and other popular web browsers.

To access the camera's web page:



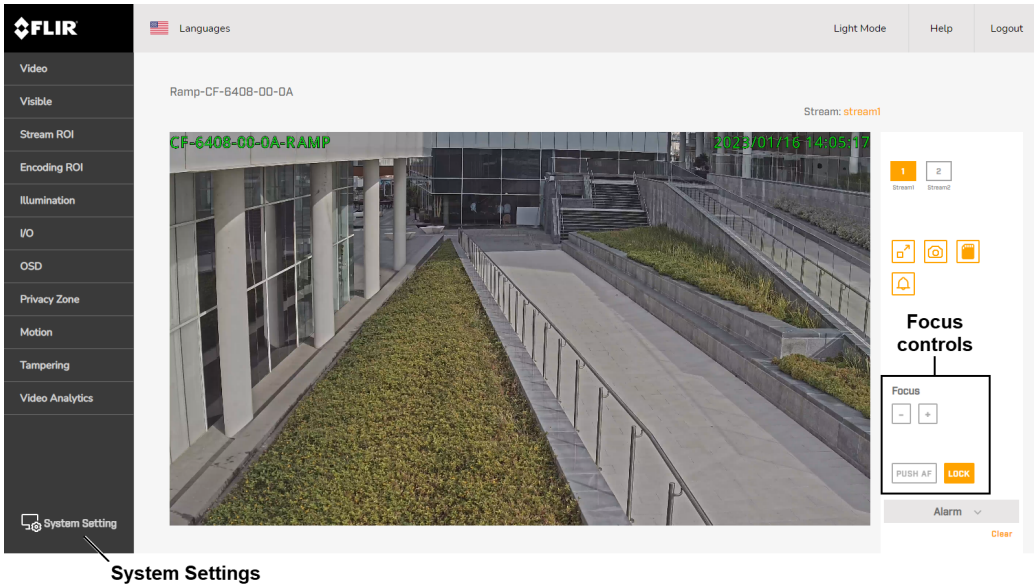
a. Do one of the following:
   - In the Teledyne FLIR Discovery Network Assistant (DNA) tool, double-click the camera in the Discover List.
   - Type the camera's IP address in a browser's address bar (when the PC and the camera are on the same network). If you do not know the camera's IP address, you can use the DNA tool to discover it.

b. On the login screen, enter a user name and password. If necessary, contact the person who configured the camera's users and passwords.

   When logging in to the camera for the first time or for the first time after resetting the camera to its factory defaults:

   1. Log in with user name *admin* and the default password, *admin*.
   2. Specify a new password for *admin*:
      - must be 8-64 characters
      - can include the following special characters: @#~!$&<>+_-.,*?
      - cannot include four-digit sequences (for example, 1234)
      - cannot include four repeating characters (for example, aaaa)
   3. Log back in using the new password.

   The camera's View Settings home page opens.



View Settings Page - Light Mode

To adjust the focus:

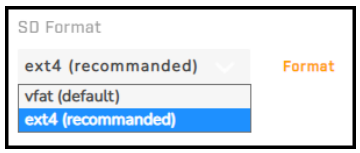
Use the controls on the View Settings home page. They are available when a View Settings menu page is not open.

To format the microSD card:

a. Click **System Settings**. Then, open the SD Card page.

b. Under SD Format, select *vfat* (default) or *ext4* (recommended).

c. Click **Format**.



Additional Configuration Steps

Depending on installation and use, completing camera setup can also consist of adjusting the camera's zoom and focus, including physically adjusting and configuring the camera lens—for example, you might need to configure the iris size; configuring the camera's video analytics; and configuring or modifying the default video stream and visible picture settings; network security settings; and alarm settings.

Many configuration steps can be performed before or after mounting the camera. However, some of them can or should only be performed after mounting the camera. For example, configure the camera's video analytics after mounting the camera.

For more information about configuring the camera, see the camera's installation and user guide.

8 Attach the Camera to a Supported VMS

After mounting the camera and discovering or defining its IP address, use VMS Discovery/Attach procedures to attach the camera to a supported VMS.

Camera Dimensions