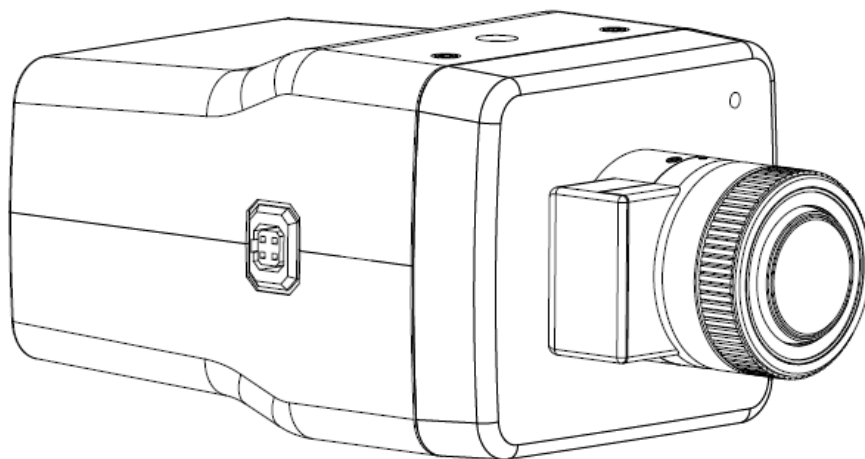




## **Illustra Flex Series 3MP and 8MP Box Cameras**

### **Quick Start Guide**



## Notice

Please read this manual thoroughly and save it for future use before attempting to connect or operate this unit. The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.

## Copyright

Under copyright laws, the contents of this manual may not be copied, photocopied, reproduced, translated or reduced to any electronic medium or machine-readable form, in whole or in part, without prior written consent of Tyco Security Products.

© 2018 Tyco Security Products. All rights reserved.

Tyco Security Products 6600

Congress Avenue Boca Raton,

FL 33487 U.S.A.

## Customer Service

Thank you for using Illustra products. We support our products through an extensive worldwide network of dealers. The dealer through whom you originally purchased this product is your point of contact if you need service or support. Our dealers are empowered to provide the very best in customer service and support. Dealers should contact American Tyco Security Products at (800) 507-6268 or (561) 912-6259 or on [www.illustracameras.com](http://www.illustracameras.com)

## Trademarks

Windows® is a registered trademark of Microsoft Corporation. PS/2® is a registered trademark of International Business Machines Corporation.

The trademarks, logos, and service marks displayed on this document are registered in the United States [or other countries]. Any misuse of the trademarks is strictly prohibited and Tyco Security Products will aggressively enforce its intellectual property rights to the fullest extent of the law, including pursuit of criminal prosecution wherever necessary. All trademarks not owned by Tyco Security Products are the property of their respective owners, and are used with permission or allowed under applicable laws.

Product offerings and specifications are subject to change without notice. Actual products may vary from photos. Not all products include all features. Availability varies by region; contact your sales representative.

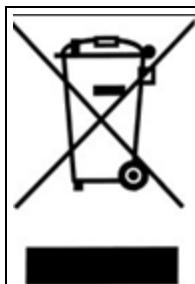
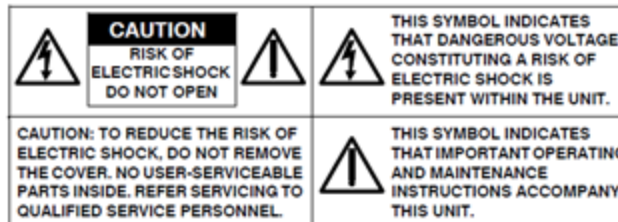
## Table of Contents

---

<b>Illustra Flex Series 3MP and 8MP Indoor Box Camera</b> .....	<b>1</b>
Product Features .....	1
Product overview .....	1
Installation .....	4
<b>System Requirements</b> .....	<b>6</b>
<b>Network Connection</b> .....	<b>7</b>
Default IP Address .....	7
DHCP .....	8
Managing cameras with the Illustra Connect tool .....	9
<b>Network Topology</b> .....	<b>12</b>
<b>Appendix A: Technical Specifications</b> .....	<b>13</b>
<b>Appendix B: Stream Resolutions</b> .....	<b>16</b>

## Warning

- This unit operates at DC 12V/ AC 24V/ PoE.
- Installation and service should be performed only by qualified and experienced technicians and comply with all local codes and rules to maintain your warranty.
- To reduce the risk of fire or electric shock, do not expose the product to rain or moisture.
- Wipe the camera with a dry soft cloth. For tough stains, slightly apply with diluted neutral detergent and wipe with a dry soft cloth.
- Do not apply benzene or thinner to the camera, which may cause the surface of the unit to be melted or lens to be fogged.
- ITE is to be connected only to PoE networks without routing to the outside plant.
- The power supply shall be approved for ITE NEC Class 2 or LPS with a rating of 24VAC, 550mA minimum and 50 degrees Celsius
- Video Out connection should be intra-building only.
- Avoid aligning the lens to very bright objects, for example, light fixtures for long periods of time.
- Avoid operating and storing the unit in the following locations:
  - Extremely humid, dusty, hot, or cold environments. The recommended operating temperature range is -20°C to 50°C (-4°F to 122°F).
  - Close to sources of powerful radio or TV transmitters.
  - Close to fluorescent lamps or objects with reflections.
  - Under unstable or flickering light sources.



WEEE (Waste Electrical and Electronic Equipment). Correct disposal of this product (applicable in the European Union and other European countries with separate collection systems). This product should be disposed of, at the end of its useful life, as per applicable local laws, regulations, and procedures.

# Illustra Flex Series 3MP and 8MP Indoor Box Camera

## Product Features

Dome camera bubbles require special care when handling and cleaning to avoid scratches. For information on bubble handling and cleaning, see 8200-1174-01 Bubble Clearing Procedure Application Note.

Go to <http://www.illustracameras.com/Products/illustra-flex-minidomes.aspx>

From the Products page, select **Illustra Flex Mini-Domes**, select **Documents**, select **Application Notes**, and select **Bubble Handling and Cleaning Procedures**.

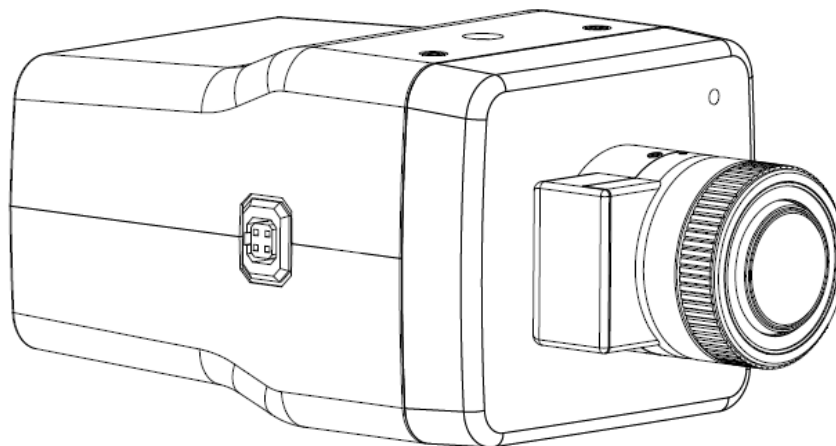
## Product overview

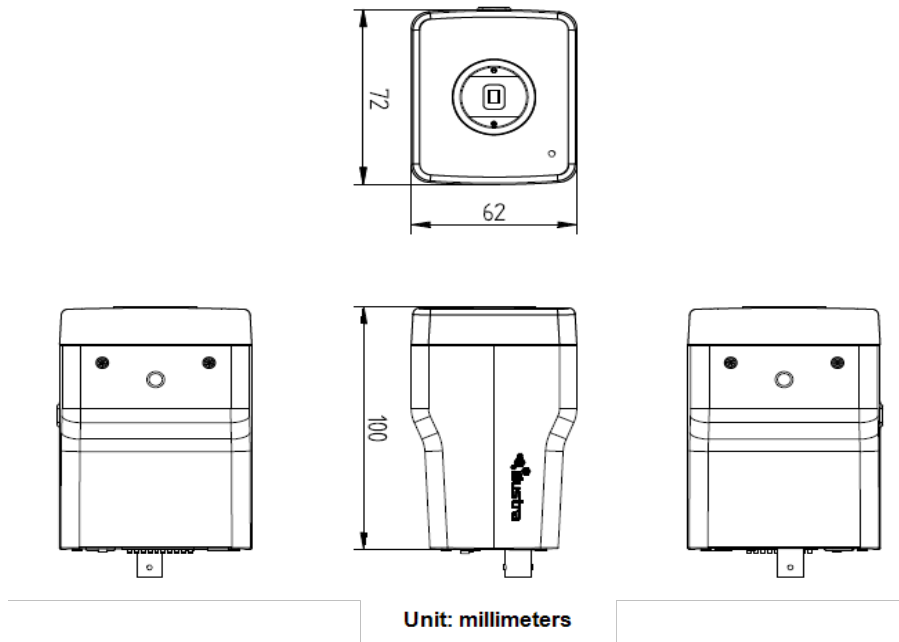
This chapter explains the features and installation of the Illustra Flex Indoor Box cameras. Product code and description of the cameras is provided in the table below.

**Table 1 Product code and description of the Illustra Flex Indoor Box cameras**

Product Code	Model Name	Description
IFS03XNANWTT	Illustra Flex 3MP Box	Illustra Flex 3MP Box, no lens, indoor, non-vandal, white, TDN, TWDR
IFS08XNANWTT	Illustra Flex 4K Box	Illustra Flex 8MP Box, no lens, indoor, non-vandal, white, TDN, TWDR

**Figure 2 Camera dimensions**

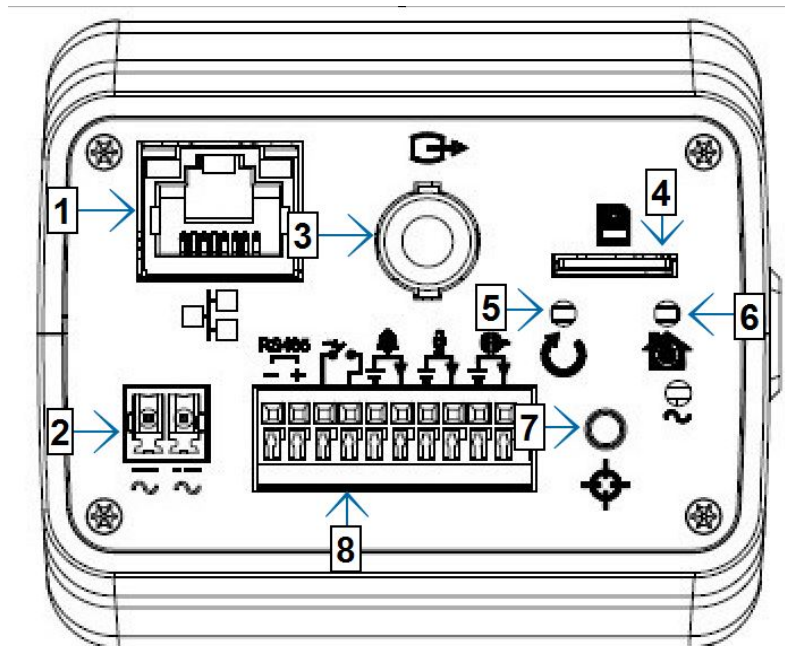




### Camera connectors

Figure 3 on page 2 and "Connector descriptions" describe the connectors of the camera and their designations.

Figure 3 Camera connectors

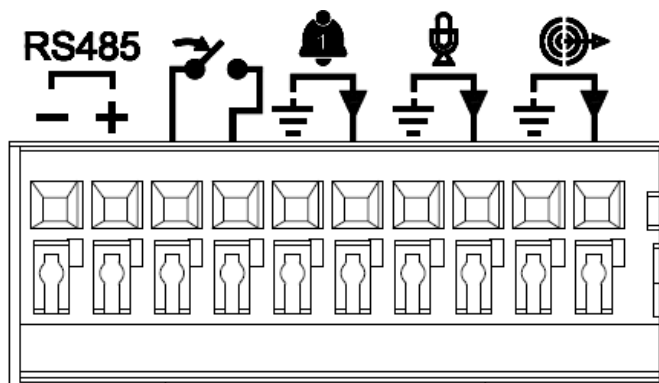


**Table 4 Connector descriptions**

Index	Name	Description
1	RJ-45 Ethernet Connector/PoE	To insert the RJ-45 cable for network connection as well as Power over Ethernet (PoE)
2	AC/DC	To use AC/DC power.
3	Video Out Connection	Analog out.
4	Micro SD Card Slot	To use a Micro SD card for recording and storage.
5	Reset Button	To reboot the unit.
6	Default Button	To reset all settings of the unit to factory default, press for 5 seconds.
7	Auto Focus Button	To apply backup focus.
8	I/O Connector	To connect Input/Output devices.



Figure 5 on page 3 and "I/O connectors icon descriptions" describe the input and output connectors and icons on the unit.

**Figure 5 I/O connectors**



**Table 6 I/O connectors icon descriptions**

Icon	Description
<b>RS485</b> 	RS-485 input and output
	Alarm in
	Alarm out

Icon	Description
	Audio input
	Audio output

## Installation

### In the box

Check everything in the box matches the order form and the packing slip. In addition to this manual, the items below are included in the box.

- 1 network Illustra Flex Box Camera
- 1 2 position 3mm Euro style plug
- 1 printed Quick Start Guide
- 1 printed Regulatory document

Please contact your dealer if any item is missing.

### Installation tools

Use the following tools to complete the installation:

- Drill
- Screwdriver
- Wire cutters

### Checking appearance

When first taking the camera out of the box, check if there is any visible damage to the appearance of the unit and its accessories. The protective materials used for the packaging should protect the unit from most potential accidents during transportation.

### Procedure 1 Connecting the wires

To connect the wires to the correct tables, complete the following steps:

Step	Action
1	Connect the power cable to the power plugs with one of the following options: <ol style="list-style-type: none"> <li>a DC 12V: Connect 12V(-) to terminal = DC 12V-, and connect 12V(+) to terminal =DC 12V+</li> <li>b AC 24V: Connect 24V (~) cables to terminals ~AC 24V</li> <li>c PoE: Connect the RJ-45 jack to a PoE compatible network device that supplies power through the Ethernet cable.</li> </ol>



- 2 Insert the audio cable and alarm cable to the unit, and connect the network cable to the RJ-45 terminal of a switch.

---

**Note:** The power source needs to be NEC Class 2 or LPS. The PoE connection should be provided by a UL Listed product and the connections shall be made in accordance with Article 800 of the NEC or local regulations.

---

<b>CAUTION</b>	If using DC supply, make sure the polarity is correct. Incorrect connection can cause malfunction and/or damage.
----------------	--

---

- End -

---

## Procedure 2 Mounting the camera

To mount the camera, complete the following steps:

Step	Action
1	Attach the camera unit to a pendant mount (not supplied), and insert and tighten the screws on the tripod receptacle into the screw holes on the base.
2	Mount the camera unit onto the ceiling or wall and fasten securely.
3	Connect the Safety Wire (Fall Prevention Wire, not supplied). One end connects to the wall or ceiling and the other connects to the safety-cord screw of the camera unit.

<b>NOTE</b>	Depending on the material of the mounting surface, different screws and anchors than those supplied may be required. To prevent the unit from falling off, ensure that it is mounted to a firm place, such as a ceiling slab or channel, using a safety wire strong enough to withstand the total weight of the unit. Safety wire must be connected with one end the wall or ceiling and the other to the safety cord screw of the unit. This helps prevent the unit from falling.
-------------	--

---

- End -

---

# System Requirements

The table below lists the minimum requirements to implement and operate an Illustra Flex Box Camera.

**Table 7 System Requirements**

System Hardware	
CPU	Intel Pentium 4 2.4GHz or equivalent
RAM	1 GB or above
Display	NVIDIA GeForce 6 Series or ATI Mobility Radeon 9500
System Software	
Browser	Microsoft Internet Explorer 9 or above, Firefox, Safari, Chrome
Unit	
Power Supply	DC 12V/AC 24V / PoE
Networking	
Wired	10/100BASE-T Ethernet-RJ-45 connector <b>NOTE:</b> A switch is required for surveillance on multiple units.
<b>NOTE</b>	All the installation and operations should comply with your local electricity safety rules.
<b>CAUTION</b>	To avoid damage to the unit, never connect more than one type of power supply (PoE IEEE802.3 Ethernet Class 0 or DC 12V/ AC24V power plug) at the same time. If using PoE, only connect the camera to PoE networks and do not route the camera to heterogeneous devices.

# Network Connection

## Default IP Address

Since this is a network-based unit, an IP address must be assigned at the very first bootup. The default IP address of the unit is 192.168.1.168 and sub mask is 255.255.255.0.

However, if you have a DHCP server in your network, the unit obtains an IP address automatically from the DHCP server so that you do not need to change the IP address of the camera.

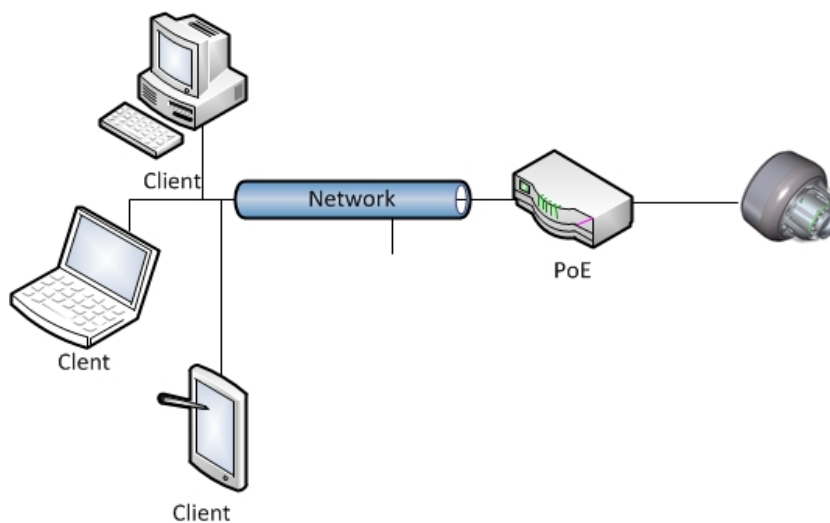
---

**Note:** If you assign the camera a Static IP address prior to DHCP being enabled, the camera first reboots for approximately 30 seconds and then remains accessible at its Static IP until it connects to a DHCP server.

---

- Connect to a PC directly: Directly connect the camera to a PC using a standard Ethernet cable. This requires POE switch or injector.
- Connecting a camera to a Local Area Network (LAN): To add the camera to an existing LAN, connect the camera to the POE hub or switch on your network.

Figure 8 Network connection diagram



## Default camera settings

The following table describes the default camera settings.

Network Settings	Defaults
DHCP	Enabled
Static IP Address	192.168.1.168
Default Username	admin
Default Password	admin

---

**Note:** At first login the user is prompted to change the default username and password.

---

### Procedure 3 Connecting from a computer

Step	Action
1	Ensure the camera and your computer are in the same subnet.
2	Check whether if the network is available between the unit and the computer by pinging the default IP address. <ol style="list-style-type: none"> <li>a Start a command prompt.</li> <li>b Type "Ping 192.168.1.168". If the message "Reply from..." appears, it means the connection is available.</li> </ol>
3	Start Internet Explorer and enter IP address: 192.168.1.168. A login window appears. In the window, enter the default user name: admin and password: admin to log in.

---

- End -

## DHCP

On initial camera startup, and after a hardware factory reset, Dynamic Host Configuration Protocol (DHCP) is enabled by default and remains enabled until the camera receives either a DHCP address or is assigned a Static IP address.

### Procedure 4 Enable DHCP

Step	Action
1	Select <b>Setup</b> on the Web User Interface banner to display the setup menus.
2	Select the <b>TCP/IP</b> tab in the <b>Basic Configuration</b> menu.
3	Select the <b>Enable DHCP</b> check box to enable DHCP and disable manual settings.
4	Select <b>Apply</b> to save the settings.

The camera searches for a DHCP server. If one is found it connects to that server. If no connection is made to a DHCP server within two minutes, the camera goes to the default IP address 192.168.1.168, but continues to search for a DHCP address.

---

**Note:** If you assign the camera a Static IP address prior to DHCP being enabled, the camera first reboots for approximately 30 seconds and then remains accessible at its Static IP until it connects to a DHCP server.

---

- End -

### Procedure 5 Disable DHCP

Step	Action
1	Select <b>Setup</b> on the Web User Interface banner to display the setup menus.
2	Select the <b>TCP/IP</b> tab in the <b>Basic Configuration</b> menu.
3	Clear the <b>Enable DHCP</b> check box to disable DHCP and allow manual settings to be entered. The default setting is 'Enabled'.
4	If Enable DHCP has been disabled:

- a Enter the IPv4 Address in the **IPv4 Address** text box in the form xxx.xxx.xxx.xxx. The default setting is '192.168.1.168'
  - b Enter the Network Mask in the **Network Mask** text box xxx.xxx.xxx.xxx. The default setting is '255.255.255.0'
  - c Enter the Gateway IP address in **Gateway** text box xxx.xxx.xxx.xxx.
  - d Enter the Primary DNS Server in the **Primary DNS Server** text box xxx.xxx.xxx.xxx.
- 5 Select **Apply** to save the settings.

---

- End -

---

## Managing cameras with the Illustra Connect tool

In addition to using the IE browser to access your camera, you can alternatively use the provided tool, Illustra Connect.

Illustra Connect is a management tool designed to manage your network cameras on the LAN. It can:

- help you find multiple network cameras
- set the IP addresses
- show connection status
- manage firmware upgrades
- bulk configuration

### Procedure 6 Connecting to the camera using Illustra Connect

---

**Note:**

Illustra Connect can only discover devices on the same subnet as its host computer. Therefore, the camera and the computer being used to configure it must be on the same subnet.

---

Step	Action
------	--------

---

- |   |   |
|---|---|
| 1 | Using a computer which is connected to the same network and subnet, install the Illustra Connect software.<br><br>The Illustra Connect software and the Illustra Connect manual are available to download on <a href="http://www.illustracameras.com">www.illustracameras.com</a> |
| 2 | When the installation is complete, run Illustra Connect.<br><br>It searches the network and displays all compliant devices.   |
| 3 | Select the camera you want to configure, locating it by its unique MAC address.   |
| 4 | Right-click the camera and select Launch Web GUI Configuration. The camera Web User Interface displays.   |

---

- End -

---

## Procedure 7 Connecting to the camera using the static IP address

Step	Action
1	The camera attempts to obtain an IP Address from the DHCP Server. When no DHCP Server is available the camera is assigned a Static IP address of 192.168.1.168.
2	Open Microsoft Internet Explorer and enter the URL of the camera as 192.168.1.168. The camera sign in page displays.

**Note:**

The computer you use to configure the camera must have an IP address on the same subnet.

- End -

## Procedure 8 Logging on to the camera web user interface

Step	Action
1	When you select the camera, the sign in page displays. Select your preferred language from the drop-down menu.
2	Enter the username in the <b>Username</b> text box. The default username is admin.
3	Enter the password in the <b>Password</b> text box. The default password is admin.
4	Select <b>Log in</b> .

**Note:** The first time that you access the camera or after a factory reset the following two pop up windows are visible: A pop up window that requests the user to **Define a Host ID** and a pop up window that requests the user to select a **Security Type**. Please refer to the user manual for further information on this.

5 The Live view page is visible. This displays the current view of the camera.

**Note:**

At first login the user is prompted to change the default username and password.

- End -

## Procedure 9 Enabling the correct video orientation for a wall mounted camera

Step	Action
1	Log on to the camera web user interface.
2	Select <b>Setup</b> on the camera web user interface banner to display the setup menus.
3	Select the <b>Picture Basic</b> tab from the <b>Basic Configuration</b> menu.
4	Select the required <b>Orientation</b> setting: <ul style="list-style-type: none"> <li>• <b>Mirror</b></li> <li>• <b>Flip</b></li> </ul>
5	The video pane updates to display the new settings.

- End -

## Lens Selection

You can select the lens on the Illustra Flex Box cameras. The lens models supported appear on the **Lens Selection** tab of the **Video** menu.

---

**Note:** Refer to the on-line data sheets at [www.illustracameras.com](http://www.illustracameras.com) for supported lens models details.

---

### Procedure 10 Perform a Lens Selection

Step	Action
1	Select <b>Setup</b> on the Web Interface Banner to display the setup menus.
2	Select <b>Picture Settings</b> from the <b>Video</b> menu.
3	Select the <b>Lens Selection</b> tab.
4	In the <b>Lens Model</b> field, use the drop-down list to select the lens you installed.
5	When you change lenses, you are prompted to reboot the camera. All active sessions will be lost. Select <b>OK</b> to proceed with reboot.

---

- End -

---

## Network Topology

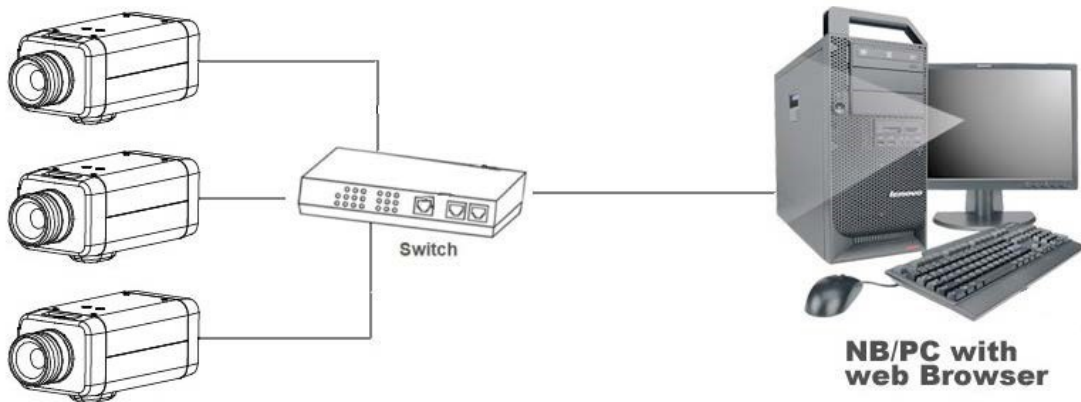
The Illustra Flex cameras deliver video images and audio in real-time using the Internet and Intranet. It is equipped with an Ethernet RJ-45 network interface.

The following images illustrate the network topology of the cameras.

**Figure 9 Illustra Flex Box Camera Network Topology Type I**



**Figure 10 Illustra Flex Box Camera Network Topology Type II**





## Appendix A: Technical Specifications

The table below lists technical specifications of the Illustra Flex Indoor Box camera.

<b>General Features</b>	
Model Type	Illustra Flex Indoor Box Camera
Model No.	IFS03XNANWTT / IFS08XNANWTT
Camera Body Color	White
Vandal Resistant Rating	N/A
<b>Mechanical Features</b>	
Dimensions	72x100x62mm
Weight	approximately 0.5kg
Housing Material	Aluminum Alloy
Other Housing Material	PC+ABS
<b>Video Processor</b>	
ROM/Flash Size	256 Mbytes
RAM Size	512 Mbytes
RTC Hold Up Time	24 hours
<b>Image Sensor</b>	
Format	1/2.8" CMOS
Capture Method	Rolling
Scan Method	Progressive
<b>Power Supply</b>	
Power Requirement	DC 12V, AC 24V, PoE IEEE 802.3af class 3
Current Draw Amps	0.398mA
Wattage	6.96W
Line Frequency Range	47 to 63 Hz
<b>Video Codecs</b>	
Frame Rate Range	1 to 60 fps
Maximum Resolution and Rate	IFS03XNANWTT - 2048x1536 @ 30 fps
Maximum Resolution and Rate	IFS08XNANWTT - 3840x2160 @ 15 fps
<b>Video Imaging</b>	
Dynamic Range Method	3MP includes WDR, TrueWDR, TWDR3x 8MP does not include TWDR3x

<b>Audio</b>	
Sampling Bits	16-BIT
Input Type	SE/Line/MIC
Input Impedance	20K/Attenuation = 0 dB
Maximum Input Level	2Vp-p
Input connector	Terminal Block
Output Type Impedance	Hi impedance
Maximum Output	2Vp-p
<b>I/O Interfaces</b>	
Micro SD Card	Micro SD/SDXC slot up to 128GB, Class 10 or higher. Card not included.
Alarm Inputs	1
Auxiliary Outputs	1
Video Output	Yes
IP Connector	RJ-45
LED Indicators	Network, Green LED, Orange LED, Power, Red LED
Reset Buttons	Reboot and Return to Defaults
<b>Environmental</b>	
Operating Temperature Range	-20° ~ +50°C
Start-up Temperature Range	-20° ~ +50°C
Water/Dust Intrusion	N/A
<b>Client Interfaces</b>	
Browsers supported	IE 9 or above, Firefox, Safari, Chrome
<b>Networking</b>	
Languages supported	English (default), Arabic, Czech, Danish, German, Spanish, French, Hungarian, Italian, Korean, Japanese, Netherlands, Polish, Portuguese, Swedish, Turkish, Chinese Traditional, Chinese Simplified, Russian.
Ethernet	10/100Base-T
Supported Protocols	TCP/IP, IPv4, IPv6, TCP, UDP, HTTP, FTP, DHCP, WS-Discovery, DNS, DDNS, RTP, TLS, Unicast, Multicast, NTP, SMTP, WS Security, IEEE 802.1x, PEAP, SSH, HTTPS, SSL, SOAP, WS Addressing, CIFS, SNMP, UPnP, RTSP, LLDP
Base Protocol	TCP/IP - RFC4614
Internet Layer Addressing	IPv4 - RFC791

	IPv6 - RFC2460
Transport Layer	TCP - RFC973 UDP - RFC768
Data Transmission	HTTP/HTTPS - RFC2616 FTP - RFC959 SFTP
Network Address Configuration	DHCP - RFC2131 Zeroconf - RFC3927 Static IP address LLDP
Time Synchronization	NTP - RFC1305 IETF NTP Working Group i minute poll rate
E-mail	SMTP - RFC5321 Authenticated SMTP - RFC4954
Authentication and Security	IEEE.802.1x - TLS/PEAP HTTPS (HTTP over TLS) - RFC2818 WS-Security Multi-level password protection IP address filtering HTTPS encryption User access log
Streaming	RTP - RFC3550 RTSP - RFC2326 Unicast Streaming Multicast RFC 1112 level 1
Firmware Upgrade	Browser/illustra Connect/ONVIF

## Appendix B: Stream Resolutions

### Flex Gen 2 3MP and Flex 8MP Streaming Combinations

Table 11 on page 16 and Table 12 on page 17 provide information for the stream resolutions and supported FPS of the Flex Gen 2 3MP cameras herein. Table 13 on page 18 provides information for the stream resolutions and supported FPS of the Flex 8MP cameras.

**Table 11 Flex 3MP Stream Set A (all resolution, codes and frame rate combinations of Stream 1, 2 and 3 are valid)**

Stream Resolution	Codecs	Frame Rates (fps)	Stream Resolution	Codecs	Frame Rates (fps)	Stream Resolution	Codecs	Frame Rates (fps)	TWDR Support
Stream 1			Stream 2			Stream 3			
2048x1536	H264/H264 IntelliZip H265/H26 IntelliZip	1-30	1280x720	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30	640x360	MJPEG	7-15	Yes (2x)
1920x1080	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30	1024x576	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30	480x360	MJPEG	7-15	Yes (2x)
1664x936	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30	640x360	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30	384x288	MJPEG	7-15	Yes (2x)
1280x720	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30	480x360	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30				Yes (2x)
			384x288	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-30				Yes (2x)

**Table 12 Flex 3MP Stream Set B (all resolution, codes and frame rate combinations of Stream 1, 2 and 3 are valid)**

Stream Resolution	Codecs	Frame Rates (fps)	Stream Resolution	Codecs	Frame Rates (fps)	Stream Resolution	Codecs	Frame Rates (fps)	TWDR Support
Stream 1			Stream 2			Stream 3			
1920x1080	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	31-60	1280x720	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-15	640x360	MJPEG	7-15	No
1664x936	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	31-60	1024x576	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-15	480x360	MJPEG	7-15	No
1280x720	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	31-60	640x360	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-15	384x288	MJPEG	7-15	No
			480x360	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-15				No
			384x288	H264/H264 IntelliZip H265/H26 IntelliZip MJPEG	1-15				No

**Note:**A maximum of 5 concurrent streams are supported by the camera. This includes shared streams. So, for example, Stream 1 can be shared twice along with a running Stream 2 and Stream 3, or Stream 1 can be shared 4 times if Stream 2 and Stream 3 are not running.

**Note:**When frame-rate is more than 30fps the following restrictions apply:

- Stream 1 max resolution is 1920x1080.
- TWDR is disabled.
- Stream 2 has a maximum frame-rate of 15.

**Table 13 Flex 8MP Box Camera resolutions**

Flex 8MP Box camera resolutions					
Stream 1	FPS	Stream 2	FPS	Stream 3	FPS
(3840x2160) 4K 16:9	1-15	(1280x720) 720p	1-15 or 1-30	(640x360) nHD 16:9	7-15
(3264x1840) 16:9		(1024x576) PAL+ 16:9		(480x360) 480 4:3	
(2592x1944) 4:3		(640x360) nHD 16:9		(384x288) 4:3	
(2688x1520) 16:9		(480x360) 480 4:3			
(2048x1536) QXGA 4:3		(384x288) 4:3			
(1920x1080) 1080p 16:9	1-60				
(1280x960) SXGA 16:9					
(1280x720) 720p 16:9					

---

**Note:Stream 2** is limited to a maximum of 15 FPS when: Stream 1 is set to **2048x1536** or above. Stream 1 is set to **1920x1080** or above with FPS greater than 30.

---

**Note:Stream 2** automatically reconfigures to a maximum of 15 FPS if Stream 1 FPS is 30 or greater.

---

**Note:Stream 2** supports 1-30 FPS when Stream 1 is set to 1920x1080 or below with FPS set to a maximum of 30.

---

**Note:Codec MJPEG** is not supported when the resolution is equal to or greater than 2048x1536.

---

**Note:TrueWDR 2x.** When TrueWDR2x is switch on, the following limits apply: For 2048x1536 and above, the framerate is limited to 15FPS (as it is when TrueWDR is off). For 1920x1080 and below, the framerate is limited to 30FPS.

---

**Note:TrueWDR 3x** is not available on 8MP units.

---