
Release Notes

**Illustra Pro 5MP 3MP & 2MP Mini-Dome Series
FW 1.5**

Firmware Version	Product Data
1.5.1.C22106A1903	Visit the IP Cameras section of www.illustracameras.com to download datasheets and other documentation in PDF format.

February 2020

Note
In case of discrepancy, the information in this document supersedes the information in any document referenced herein.

8200-1135-03 U0

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What is in this release

What is new

1.5.1.C22106A1903 firmware release adds the following improvements:

- Improves video stream robustness.

Previous Firmware Releases

1.4.0.C20433A1893

- Improved robustness for Edge off-line recording.

1.3.2.C17223A1581

New Features

- iAPI3 Multicast support including GUI configuration to support integration with VideoEdge/Victor 5.1
- Support for Russian Language

Enhancements to

- TrickleStor feature
- Alarm Out (relay output) support to integrate with VideoEdge 5.1
- Automatically set camera to HTTPs when Enhanced Security mode is enabled. Please reference User Manual & VideoEdge camera handler Release notes when using using Enhanced Security Mode and adding the camera to VideoEdge.

Note:

After upgrading to 1.3.2 the user may experience the following:

- InCookie Error
- Irregular GUI layout

Both issues are due to further enhancements on the camera's cyber security, both are resolved by logging out of the GUI and clearing Browser cache.

1.3.1.C16105A1476

- Introducing new camera models:

IPS02D00CWTT	Illustra Pro 2MP Mini-dome, 1.8-3mm, outdoor, vandal, clear, white, TDN, TWDR
IPS03D00CWTT	Illustra Pro 3MP Mini-dome 1.8-3mm, outdoor, vandal, clear, white, TDN, TWDR
IPS05D00CWTY	Illustra Pro 5MP Mini-dome, 1.8-3mm, outdoor, vandal, clear, white, TDN, WDR

1.3.1.C15591A1432

- LLDP Support for POE switches
 - Camera now runs an LLDP daemon to help with power management in PoE networks.
 - The camera indicates that it is a PoE class 3 (Mid power) device.
- Alarm out link to Motion Detection (MD) events.
 - When an Alarm out is linked to a MD event, the user now has the option of selecting that a stop Motion event will clear or reset the Alarm out.
- Robustness enhancements with ExacqVision.
- Image quality improvements on the 5MP camera.
- Introducing new camera models:

IPS03D3OCWIT	Illustra Pro 3MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, TWDR
IPS05D3OCWIY	Illustra Pro 5MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, WDR
IPS02D3OCWIT	Illustra Pro 2MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, TWDR

1.2.1.C12896AF91

- Enhancement to enable/disable individual IR LEDs.
- Fix to enable/disable audio.
- Performance enhancement to Metadata Eventing

1.2.0.C12439AF55

1.2.0 Updates

- (1) Illustra Video Intelligence – Generates alarms for events configured on the camera.
 - Configurable rules are: Object Detection, Abandoned / Removed, Direction, Linger, Dwell, Enter, Exit, Crowd, and Queue.
 - To configure video intelligence, see the *Illustra Pro Series 5MP, 3MP & 2MP Mini Dome Series Configuration & User Guide* for more information.
- (2) Digest HTTP authentication enabled by default when the camera is in Enhanced Security mode.
- (3) New Feature – SIP – The camera can be configured as a SIP user agent that can register with a SIP server to make / receive audio calls to another SIP device.
- (4) Enhancement to SD card event recording. Maximum of 1000 most recent video clips are displayed on camera web user interface and the oldest clips are deleted. Downloaded clips are displayed quicker than before this release.
- (5) Enhancement to the DHCP feature.
- (6) Enhancement to ONVIF implementation integration with third party recorders.

1.1.4.C11835AD91

1.1.4 Updates

Enhancement to Day / Night transition.

1.1.1.C11078AD9

1.1.1 Updates

- (1) Focus optimization. To resolve camera focus issues caused by lens shift during transit.
- (2) Lens Calibration page available on web user interface. This can be used to recalibrate lenses if focus issues persist after the firmware upgrade – For more information, refer to Technical Bulletin [TB-00346-00-160316](#).
- (3) New feature – IR Compensate Enable / Disable. When the feature is enabled, the camera automatically refocuses within 30 seconds of the “day to night/night to day” mode transition.

1.1.0.C10707AA16

1.1.0 Updates:

Firmware 1.1.0.C10707AA16 introduces UPnP (Universal Plug and Play) broadcasts information about the camera to other devices on the network.

1.0.1.C10314A780

1.0.1 Updates:

Support added for 2MP models

1.0.0.C8982A560

Initial Camera Firmware release for 3MP and 5MP models.

Continued support

The Illustra Pro Mini-Dome 2MP, 3MP, and 5MP are now available in the following configurations:

2MP Models

IPS02D00CWTT	Illustra Pro 2MP Mini-dome, 1.8-3mm, outdoor, vandal, clear, white, TDN, TWDR
IPS02D21CWTT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN, TWDR
IPS02D21CWIT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN w/IR, TWDR
IPS02D20CWTT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN, TWDR
IPS02D20CWIT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN w/IR, TWDR
IPS02D21SWTT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN, TWDR
IPS02D21SWIT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN w/IR, TWDR
IPS02D20SWTT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN, TWDR
IPS02D20SWIT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN w/IR, TWDR
IPS02D21CBTT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN, TWDR
IPS02D21CBIT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN w/IR, TWDR
IPS02D20CBTT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN, TWDR
IPS02D20CBIT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN w/IR, TWDR
IPS02D21SBTT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, smoked, black, TDN, TWDR
IPS02D21SBIT	Illustra Pro 2MP Mini-Dome, 3-9mm, indoor, vandal, smoked, black, TDN w/IR, TWDR
IPS02D20SBTT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, black, TDN, TWDR
IPS02D20SBIT	Illustra Pro 2MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, black, TDN w/IR, TWDR
IPS02D31CWTT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN, TWDR
IPS02D31CWIT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN w/IR, TWDR
IPS02D31SWTT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN, TWDR
IPS02D31SWIT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN w/IR, TWDR
IPS02D31CBTT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN, TWDR
IPS02D31CBIT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN w/IR, TWDR
IPS02D31SBTT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN, TWDR
IPS02D31SBIT	Illustra Pro 2MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN w/IR, TWDR
IPS02D30CWIT	Illustra Pro 2MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, TWDR

3MP Models

IPS03D00CWTT	Illustra Pro 3MP Mini-dome 1.8-3mm, outdoor, vandal, clear, white, TDN, TWDR
IPS03D21CWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN, TWDR
IPS03D21CWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN w/IR, TWDR
IPS03D20CWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN, TWDR
IPS03D20CWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN w/IR, TWDR
IPS03D21SWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN, TWDR
IPS03D21SWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN w/IR, TWDR
IPS03D20SWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN, TWDR
IPS03D20SWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN w/IR, TWDR
IPS03D21CBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN, TWDR
IPS03D21CBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN w/IR, TWDR
IPS03D20CBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN, TWDR
IPS03D20CBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN w/IR, TWDR
IPS03D21SBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, black, TDN, TWDR
IPS03D21SBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, black, TDN w/IR, TWDR
IPS03D20SBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, black, TDN, TWDR
IPS03D20SBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, black, TDN w/IR, TWDR
IPS03D31CWTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN, TWDR
IPS03D31CWIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN w/IR, TWDR
IPS03D31SWTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN, TWDR
IPS03D31SWIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN w/IR, TWDR
IPS03D31CBTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN, TWDR
IPS03D31CBIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN w/IR, TWDR
IPS03D31SBTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN, TWDR
IPS03D31SBIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN w/IR, TWDR
IPS03D30CWIT	Illustra Pro 3MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, TWDR

3MP Models

IPS03D00CWTT	Illustra Pro 3MP Mini-dome 1.8-3mm, outdoor, vandal, clear, white, TDN, TWDR
IPS03D21CWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN, TWDR
IPS03D21CWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN w/IR, TWDR
IPS03D20CWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN, TWDR
IPS03D20CWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN w/IR, TWDR
IPS03D21SWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN, TWDR
IPS03D21SWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN w/IR, TWDR
IPS03D20SWTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN, TWDR
IPS03D20SWIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN w/IR, TWDR
IPS03D21CBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN, TWDR
IPS03D21CBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN w/IR, TWDR
IPS03D20CBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN, TWDR
IPS03D20CBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN w/IR, TWDR
IPS03D21SBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, black, TDN, TWDR
IPS03D21SBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, indoor, vandal, smoked, black, TDN w/IR, TWDR
IPS03D20SBTT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, black, TDN, TWDR
IPS03D20SBIT	Illustra Pro 3MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, black, TDN w/IR, TWDR
IPS03D31CWTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN, TWDR
IPS03D31CWIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN w/IR, TWDR
IPS03D31SWTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN, TWDR
IPS03D31SWIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN w/IR, TWDR
IPS03D31CBTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN, TWDR
IPS03D31CBIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN w/IR, TWDR
IPS03D31SBTT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN, TWDR
IPS03D31SBIT	Illustra Pro 3MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN w/IR, TWDR
IPS03D30CWIT	Illustra Pro 3MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, TWDR

5MP Models

IPS05D0OCWTY	Illustra Pro 5MP Mini-dome, 1.8-3mm, outdoor, vandal, clear, white, TDN, WDR
IPS05D2ICWTY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN, WDR
IPS05D2ICWIY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, clear, white, TDN w/IR, WDR
IPS05D2OCWTY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN, WDR
IPS05D2OCWIY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, clear, white, TDN w/IR, WDR
IPS05D2ISWTY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN, WDR
IPS05D2ISWIY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, smoked, white, TDN w/IR, WDR
IPS05D2OSWTY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN, WDR
IPS05D2OSWIY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN w/IR, WDR
IPS05D2ICBTY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN, WDR
IPS05D2ICBIY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, clear, black, TDN w/IR, WDR
IPS05D2OCBTY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN, WDR
IPS05D2OCBIY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, clear, black, TDN w/IR, WDR
IPS05D2ISBTY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, black, smoked, TDN, WDR
IPS05D2ISBIY	Illustra Pro 5MP Mini-Dome, 3-9mm, indoor, vandal, black, smoked, TDN w/IR, WDR
IPS05D2OSBTY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, black, smoked, TDN, WDR
IPS05D2OSBIY	Illustra Pro 5MP Mini-Dome, 3-9mm, outdoor, vandal, smoked, white, TDN w/IR, WDR
IPS05D3ICWTY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN, WDR
IPS05D3ICWIY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, clear, white, TDN w/IR, WDR
IPS05D3ISWTY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN, WDR
IPS05D3ISWIY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, smoked, white, TDN w/IR, WDR
IPS05D3ICBTY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN, WDR
IPS05D3ICBIY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, clear, black, TDN w/IR, WDR
IPS05D3ISBTY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN, WDR
IPS05D3ISBIY	Illustra Pro 5MP Mini-Dome, 9-22mm, indoor, vandal, smoked, black, TDN w/IR, WDR
IPS05D3OCWIY	Illustra Pro 5MP Mini-dome, 9-22mm, outdoor, vandal, clear, white, TDN w/IR, WDR

Firmware upgrade

Use the camera web user interface, or the Illustra Connect Tool to upgrade the firmware on the Illustra Pro Mini-Dome camera.

Upgrading the camera firmware using the web user interface

Note:

All existing camera settings are maintained when the firmware is upgraded.

After the upgrade is complete, you will need to clear your internet browser cache to access the camera web user interface.

To upgrade the camera firmware using the web user interface, complete the following steps:

1. Using a web browser, connect to the camera using the IP Address and login to the web user interface.
2. Select **Setup** from the web banner to access the setup menus.
3. Select **System** and then **Maintenance** from the menu.
4. Identify the **Camera Upgrade section** from the Maintenance menu.
5. Select **Browse**. The Choose file dialog displays.
6. Navigate to the location where the firmware file has been saved. Select the firmware file then select the **Open** button.
7. Select **Upload**. The file transfer begins and a progress bar displays.
8. After the upgrade is complete, you will need to clear your internet browser cache to access the camera web user interface.

Note:

After upgrading to 1.3.2 the user may experience the following:

- InCookie Error
- Irregular GUI layout

Both issues are due to further enhancements on the camera's cyber security, both are resolved by logging out of the GUI and clearing Browser cache.

Upgrading the camera firmware using Illustra Connect

Note:

All existing camera settings are maintained when the firmware is upgraded.

To update the camera firmware using Illustra Connect, complete the following steps:

1. Install and launch the Illustra Connect software utility.
2. From the displayed list of cameras; right-click on the camera requiring the software upgrade.
3. Select **Upgrade Firmware**. The Firmware Upload window displays.
4. Select **Choose File** and browse to the firmware upgrade file.
5. Select **Upgrade** to start the upgrade.

Note:

After upgrading to 1.3.2 the user may experience the following:

- InCookie Error
- Irregular GUI layout

Both issues are due to further enhancements on the camera's cyber security, both are resolved by logging out of the GUI and clearing Browser cache.

Features

Key Features

- High resolution, 2, 3 or 5 megapixel, imager Multiple IP streams of H.264 and MJPEG video
- Integration with American Dynamics VideoEdge NVR, VideoEdge Hybrid, victor Unified Client exacqVision recorders and Clients
- exacqVision Edge-Ready
- Integration with Illustra Connect v 3.0 and higher
- Illustra API v3.3
- ONVIF profile S compliant
- PoE or AC powered
- Motion Detection, Face Detection and Blur Detection support on camera
- Wide Dynamic Range
- Auto and Manual White Balance Modes
- Eventing with RTP meta-data streaming
- Supports up to five Regions of Interest
- Supports up to nine Privacy Zones
- Gaming Mode
- Manual Focus and Zoom Control
- One touch Focus
- Frame noise reduction
- SD card event buffering (requires micro-SD or SD-HC card)
- Easy to install
- Outstanding color reproduction
- Sleek and compact design
- No dependencies on third party utilities for camera setup. No QuickTime and Java requirements
- Expanded browser support: IE, Chrome, Firefox, Safari
- Corridor Mode - 2MP only
- UltraVision Lowlight color video at 1 Lux
- UPnP Discovery
- SIP
- Enhanced Security
- On board Video Intelligence Analytics

Edge Analytics support

VE NVR Server Edge Analytics Support on firmware 1.0.0 and higher

Model	Edge Motion	Edge Motion Metadata	Edge Face Alarms	Edge Face Metadata	Edge Blur Alarms	Video Intelligence
Illustra Pro 5-3-2MP Mini-Dome	Yes	Yes	Yes	Yes	Yes	Yes (v4.9 onwards)

Exacq Server Edge Analytics Support on firmware 1.0.0 and higher

Model	Edge Motion	Edge Motion Metadata	Edge Face Alarms	Edge Face Metadata	Edge Blur Alarms	Video Intelligence
Illustra Pro 5-3-2MP Mini-Dome	Yes	No	No	No	No	Yes (v8.0 onwards)

Specific feature information

UPnP feature

UPnP (Universal Plug and Play) broadcasts information about the camera to other devices on the network. The UPnP uses the Windows Network apps to discover the devices in the network that you are connected to.

Navigate to this feature by selecting the following menu options on the camera web user interface:

Setup-> Security-> Remote Access.

The information broadcasts about the camera are:

- Device Name : <Product Code>-<Serial Number>
- Manufacturer and manufacturer URL
- Model (product code) and model URL (same as manufacturer URL)
- Device webpage (camera homepage)
- Serial number
- MAC address
- Unique Identifier: uuid<unique id for that camera type>-<serial number
- IP address

Note: The information broadcast on Windows XP is slightly different from the above.

Supported key UPnP functions

- Windows XP, Windows 7, Windows 8 and Windows 10
- HTTP and HTTPS

Unsupported Key UPnP Functions

- Video streaming
- Audio streaming
- API command to enable and disable UPnP feature

MicroSD card

A MicroSD card pre-formatted with FAT32 to a maximum size of 128GB is supported

Video streaming

Illustra Pro Mini-Dome supports 3 configurable streams:

- Codec
- Resolutions
- Frame rate (ips)
- MJPEG Quality:
1 to 100
- H.264 Variable Bit Rate Quality:
5 pre-defined quality presets for VBR: Highest, High, Medium, Low and Lowest
Available through the web user interface or iAPI.
- H.264 Constant Bit Rate target bit rate:
16kbs to 10000kpbs

Table 1: 2MP Mini-Dome Stream Resolutions

2MP		
Stream 1	Stream 2	Stream 3
(1920x1080) 1080p 16:9	(1920x720) 720p 16:9	(1024x576) PAL+ 16:9
(1664x936) 16:9	(1024x576) PAL+ 16:9	(640x360) nHD 16:9
(1280x720) 720p 16:9	(640x360) nHD 16:9	(384x216) 16:9
(1024x576) PAL+ 16:9	(384x216) 16:9	
(640x360) nHD 16:9		
(384x216) 16:9		

Table 2: 3MP Mini-Dome Stream Resolutions

3MP		
Stream 1	Stream 2	Stream 3
(2048x1536) QXGA 4:3	(1920x720) 720p 16:9	(1024x576) PAL+ 16:9
(1920x1440) 4:3	(1024x768) 1024 XGA 4:3	(960x720) 4:3
(1920x1080) 1080p 16:9	(1024x576) PAL+ 16:9	(768x576) 4:3
(1600x1200) UXGA 4:3	(768x576) 4:3	(640x480) 640 VGA 4:3
(1280x960) SXGA 4:3	(640x480) 640 VGA 4:3	(640x360) nHD 16:9
(1280x720) 720p 16:9	(640x360) nHD 16:9	(480x360) 480 4:3
(1024x768) 1024 XGA 4:3	(480x360) 480 4:3	(384x288) 4:3
(1024x576) PAL+ 16:9	(384x288) 4:3	(384x216) 16:9
(768x576) 4:3	(384x216) 16:9	
(640x480) 640 VGA 4:3		
(640x360) nHD 16:9		
(480x360) 480 4:3		
(384x288) 4:3		
(384x216) 16:9		

Table 3: 5MP Mini-Dome Stream Resolutions

5MP		
Stream 1	Stream 2	Stream 3
(2592X1944) 4:3 (H264 Only)	(1920x1080) 1080p 16:9	(1024x576) PAL+ 16:9
(1920x1440) 4:3	(1600x1200) UXGA 4:3	(920x720) 4:3
(1920x1080) 1080p 16:9	(1280x960) SXGA 4:3	(768x576) 4:3
(1600x1200) UXGA 4:3	(1280x720) 720p 16:9	(640x480) 640 VGA 4:3
(1280x960) SXGA 4:3	(1024x768) 1024 XGA 4:3	(640x360) nHD 16:9
(1280x720) 720p 16:9	(1024x576) PAL+ 16:9	(480x360) 480 4:3
(1024x768) 1024 XGA 4:3	(768x576) 4:3	(384x288) 4:3
(1024x576) PAL+ 16:9	(640x480) 640 VGA 4:3	(384x216) 16:9
(768x576) 4:3	(640x360) nHD 16:9	
(640x480) 640 VGA 4:3	(480x360) 480 4:3	
(640x360) nHD 16:9	(384x288) 4:3	
(480x360) 480 4:3	(384x216) 16:9	
(384x288) 4:3		
(384x216) 16:9		

Camera stream limitations

The camera is capable of streaming a limited amount of H264 data due to hardware platform limitations; for each models (2/3/5 MP) this is usually limited to a single stream at highest supported resolution.

Changing any of these settings results in a unique stream request: Codec, Resolution, FPS, Quality, bitrate control and bitrate range.

The camera, however, supports multiple streaming (up to three instances) of identical streams.

Possible causes of running into stream limitations include:

- A camera is configured on more than one server, and requesting two different stream configurations. In this case one of the streams will not be satisfied.
- A camera is configured on a single server, but a web user interface session is open with an active live stream. Requesting stream 1 changes from the server will be denied as Stream1 is active and streaming to a web user interface on a separate configuration.
- A camera is configured on a single server, but a web user interface session is open with an active live stream. Requesting stream 1 changes from the web user interface will be denied as Stream1 is active and streaming to a server on a separate configuration.
- A camera configured on a single server, but with exacq Edge application also running on camera. Requesting stream 1 changes from the server will be denied as Stream1 is active and streaming to the exacq Edge application on a separate configuration.

Technical details of limitation:

On the Illustra Pro FD range for H.264 codec, the maximum total throughput for all H.264 streams is roughly 108 mega pixels per second (mpps). Running a single H.264 5MP stream @ 15fps results in a resource usage of 75 mpps. Therefore, adding a second stream at 5MP will not work unless the parameters are exactly the same. Different parameters would result in 150mpps which the camera will reject. A similar calculation can be done for the 2MP and the 3MP cameras. This is a limitation of the hardware platform that is being used.

Megapixel model	Typical H264 highest resolution throughput
5MP 15 fps	75/108 mpps
3MP 30 fps	90/108 mpps
2MP 30 fps	60/108 mpps

MJPEG usage consideration

MJPEG video does not use any temporal compression, but uses only spatial compression, making its bandwidth requirements much greater than H264.

The following quality settings are recommended to optimize bandwidth utilization when using MJPEG spatial compression at high resolution:

Resolution	FPS	Recommended maximum quality
1920x1440	30	50
1920x1440	15	50
1920x1080	30	70
1920x1080	15	80
1600x900	30	75
1600x900	15	85
1280x720	30	80
1280x720	15	90

Illustra iAPI

Illustra Pro Mini-Dome supports Illustra API v3.3 API documentation and specific details of Illustra Pro Mini-Dome implementation is available to Tyco Security Products partners.

ONVIF Profile S Conformance

Illustra Pro Mini-Dome is conformant with ONVIF Profile S and has been tested with ONVIF Device Test Tool version 17.01.

Server Integration

American Dynamics VideoEdge NVR/VideoEdge Hybrid Integration

Illustra Pro Mini-Dome integrates with the following versions of American Dynamics VideoEdge NVR and the VideoEdge Hybrid:

- American Dynamics VideoEdge NVR/ VideoEdge Hybrid version 4.5.1 and above using a specific camera handler
- Refer to the American Dynamics VideoEdge Camera Handler Release Notes for integration information with upcoming releases.

exacqVision Server 7.0 and above

Illustra Pro Mini-Dome integrates with the following versions of exacqVision server:

- exacq Server 7.0.x
- exacq Server Edge application exacqVisionServer-7.0.1.81035-Illustra-825 or above

Recovery procedure for damaged firmware

Illustra Pro Mini-Dome has a dual bank firmware structure to address unexpected severe events such as the system becoming inoperable due to power interruptions during firmware upgrades. If this rare event occurs, it is possible to force a manual switch to the second firmware bank.

It is possible to manually switch to the second firmware bank by forcing seven failed boots. Use the following procedure:

1. Power up the camera.
2. Wait for the ethernet port status lights on the camera base to start flashing.
3. Wait 10 seconds.
4. Cut power to the camera.
5. Repeat steps 1 to 4 seven times.

This procedure should only be carried out by Tyco Security Products Support Engineers.

Video Intelligence

- The camera supports the configuration of Video Intelligence Alerts. You can define Video Intelligence settings that can be used to set up Analytics Rules.
- You can add up to three Analytics Rules by default on the camera web user interface. An alarm is generated each time an event is triggered.
- For detailed information about configuring each rule, refer to the *Illustra Pro Series 5MP, 3MP & 2MP Mini Dome Series Configuration & User Guide*.
- Video Intelligence alarms are compatible with VENVR 4.9 and exacq 8.0.
- It is recommended to configure Video Intelligence rules on the camera, before adding the camera to a VENVR.

- After enabling Video Intelligence on a camera that is already on a VENVR, it is necessary to restart the NVR services in order for the new configuration to be recognized by the NVR. To restart the NVR services select **Advanced**, then select **Shutdown**, and then select **Restart NVR Services**.

DHCP

- On initial camera startup, and after a hardware factory reset, DHCP is enabled by default and it remains enabled until the camera receives either a DHCP address or is assigned a Static IP address.
- If no connection is made to a DHCP server within two minutes, the camera will go to default IP address 192.168.1.168, but will continue to search for a DHCP address.
- If the camera is assigned 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 a connection is made to a DHCP server.

Enhanced Security

The Enhanced Security feature intends to advance the security of the Illustra cameras by enforcing security best practices and adding features to allow the installer and end-users to customize the camera's security to meet their controls.

Some of the main changes are:

1. A new Security Status page.
2. Enforcement of complex passwords for all accounts. Formerly limited to administrators.
3. New behavior related to HTTP and Video Over HTTP.
4. HTTP authentication methods: Basic, Digest.
5. Enforcement of username change under Enhanced Security mode.

Security Modes Summary

Standard Security

1. Changes to communication protocols is available to all users with appropriate privileges.
2. Passwords complexity is set to require minimum of any 5 characters.
3. Authentication Method is set to basic by default.

Enhanced Security

1. Unsecure Protocols are disabled by default until enabled by a user.
2. Discovery Protocols are disabled by default until enabled by a user.
3. Changes in the protocols are only be available to a user with administrative privileges and require that user to re-enter their password.
4. Default admin username & password change is Enforcement.
5. Usernames for all accounts must meet the Username Password Complexity Requirements, which are detailed below.
6. Passwords for all accounts must meet the Password Complexity Requirements, which are detailed below.
7. AUTHENTICATION OF VIDEO STREAM, INCLUDING DISABLING VIDEO OVER HTTPS
8. Authentication Method is set to HTTPS Digest by default (HTTP disabled).

Note: When applying Enhanced security all these changes will be done automatically, but if changing from Enhanced to Standard the settings will not be changed automatically – to reset to standard profile user will need to do changes manually or factory reset camera and select standard Security when prompted.

Username and Password Complexity Requirements

- Username Complexity for Enhanced Security Mode:
 - a. Minimum characters: 5
- Password Complexity for Enhanced Security Mode:
 - a. Minimum characters: 8
 - b. Have least one character from a minimum of three of the following character groups:
 - i. upper case letters ABCDEFGHIJKLMNOPQRSTUVWXYZ
 - ii. lower case letters abcdefghijklmnopqrstuvwxyz
 - iii. numeric characters 0123456789
 - iv. Special characters @ % + \ / ' ! # \$ ^ ? : , () { } [] ~ - _ `
 - c. Cannot be identical to the username

Default admin/admin & Automatic prompt for username and password change at first login

The admin/admin user is hardcoded until a new admin username is created.

For standard Security

The camera offers support to remove the default admin user manually.

To delete the default admin user account:

1. Log in to the default admin/admin account.
2. Create a new administrator user account.
3. Logout of the existing admin/admin account.
4. Log in to the new admin user account.
5. Delete the default admin/admin user account.
6. The new admin user is now the hardcoded admin user.

For Enhanced Security

When selected, a pop up is visible requiring you to change your username and password.

- **A username & password change is mandatory** – Note: If the user sets a new username and password – admin/admin is automatically replaced.
- Certain criteria apply to both the username and password (See Username and Password complexity).

NOTE:

When Enhanced Security is enabled the user is prompted to change the username and password from the default admin/admin. If not all rules are applied then the change request is denied and credentials remain as admin/admin. Failure to comply by rules, intermittently may result in camera log in being unavailable for a few minutes to allow camera to restore default functionality.

How to restore admin/admin:

1. Restore factory default camera.

Changes in Enhanced security profile

When changing security to 'enhanced', the camera performs the following changes:

- Admin/admin password automatically replaced by new Enhanced username/password.
- Change from basic to Digest HTTPs authentication.
- Enables RTSP authentication.
- Disables all ONVIF capabilities.
- Disables UPnP Discovery protocol.
- Disables Exacq Audio Ports.

Note: When applying Enhanced security all these changes will be done automatically, but if changing from Enhanced to Standard the settings will not be changed automatically – to reset to standard profile user will need to do changes manually or factory reset camera and select standard Security when prompted.

RTSP Authentication

We are now required video stream authentication – if upgrading to 1.3.2 from previous version the authentication won't be applied, however If the camera gets factory defaulted or was received with fw 1.3.2 then RTSP authentication will be enabled.

We don't recommend disabling RTSP authentication, but if required it can be managed through the Security tab in the camera GUI.

Multicast

Multicast feature is included on FW 1.3.1 onwards. Multicast streaming is a one-to-many relationship between a camera and the clients receiving the stream. With a multicast stream, the server streams to a multicast IP address on the network, and clients receive the stream by subscribing to the IP address. User can configure the Multicast via camera GUI or iAPI, on VideoEdge Camera configuration. The feature was released specifically to integrate with VideoEdge 5.1 Failover.

Offline Record Settings

When you configure the Offline Record Settings feature and once it detects a loss of connection with the recorder, it sends the video stream to the SD card within the unit. This satisfies the loss of video and continues recording. Once the recorder is back online the camera initiates sending recorded video from the SD card to the recorder. The maximum time recording during the outage depends on the SD card and the recorded stream you selected. If the SD reaches full capacity, it deletes video from earliest recording to latest recording. This feature integrates with the VE NVR 5.0 Trickle Stor.

Known limitations and issues

Illustra Pro 5MP, 3MP & 2MP Mini-Dome Series	
Description	Suggested Work-Around
<p>After upgrading to 1.3.2 the user may experience the following:</p> <ul style="list-style-type: none"> • IngCookie Error • Irregular GUI layout 	<p>Both issues are due to further enhancements on the camera's cyber security, both are resolved by logging out of the GUI and clearing Browser cache.</p>
<p>MJPEG stream won't provide a usable stream @max resolution (2592x1944) on i825 5MP models- This is a RTSP protocol limitation. This will not be an available choice.</p>	<p>None – RTSP protocol limitation.</p>
<p>Illustra Pro 5MP & 3MP Mini-Dome cameras show extensive freeze frames @h264 1-6 FPS using RTSP through VLC.</p> <p>This issue may also be experienced on full FPS cameras during low light periods if FPS drops to lower than 6 FP.</p> <p>The issue is isolated to VLC player – all other 3rd party players such as QuickTime and Windows media player perform better.</p> <p>Camera GUI, NVR, Victor, exacqVision server and client do not show this issue.</p>	<p>At low light levels the player can display issues trying to start a stream. However, if the stream was started prior to the Low light condition, it does not display such an issue.</p> <p>Possible solution to get streaming to work: change VLC / Quick time buffering options. For example, increase the VLC caching time up to 10000ms.</p> <p>Determining an exact light level at which the FPS drop may go below 5FPS is not precise as it depends on a number of camera settings (scene, gain, shutter speed, ips setting, AE settings, WDR, zoom, lens, sensor).</p>
<p>On a MJPEG stream at specific resolutions of 1920 x1080, 640x360, 480x360, and 384x216, the camera displays a slight purple/green band along the bottom of a MJPEG video stream. This is a TI MJPEG encoder issue.</p>	<p>The issue is barely detectable on higher resolution, but it is evident on the lower resolution. Adjusting the quality or selecting the next available resolution fixes this issue.</p>
<p>Event Download page shows object_detectedfor all Video Intelligence rules. This also applies to FTP / SMTP and CIFS video clips</p>	<p>Refer to the Event Log page on the web user interface which displays the rule name and type.</p>
<p>If two or more Events occur at the same time, only one is recorded in the Event Log. This applies to all event logging : FTP / CIFS / SMTP / S.D.</p>	<p>Metadata events will still be sent for all events.</p>
<p>If an event is linked to record a video clip to a SD card, brief video loss may occur for less than 1 second, at the moment the event recording begins.</p>	<p>None.</p>
<p>Improvement of pop-up text when trying to add more rules than are allowed. Currently says Operation Failed.</p>	<p>Message text will be improved in a future release.</p>

Illustra Pro 5MP, 3MP & 2MP Mini-Dome Series	
Description	Suggested Work-Around
Progress bar for firmware upgrade needs to be extended. Sometimes the firmware upgrade is not complete even though the progress bar has completed.	Wait another 30 seconds after the progress bar is complete to confirm upgrade is finished.
One touch focus gives a blur alarm, even when blur detection is disabled.	None.
If two events are triggered close together, the second event may not be recorded on the S.D. card, as the first event is not finished recording. An event can take longer to finish recording if the fps is reduced e.g. in low-light settings.	Lower the Post-Event buffer if required.
If the camera is rebooted when configured at Full Wide, the camera may need to be refocused slightly.	Use one-touch focus to refocus the image.
After calibration, the zoom slider position does not match the actual zoom level.	Move the zoom slider to Wide or Tele to resolve the inaccuracy.
Zoom and focus levels return to 0 after a reset.	Camera is set to full 'Wide' zoom level after a full reset. Use one-touch focus to focus the image if necessary.
Focus/one touch – there can be instances when the camera cannot focus correctly using one touch, and using manual fine adjustment can still not achieve the correct zoom level.	Upgrade to 1.1.1 firmware and if focus issues persist, follow the lens calibration procedure.
Camera MD analytics requires a H264 stream on either Stream 1 or 2 video setting – if you reconfigure the streams always make sure the video settings are suitable for analytics.	If you navigate to the MD tab, the web user interface notifies you if there is no suitable MD stream available.
Illustra Pro Mini-Dome Mediaserver can become unstable if the camera is subject to a high number of requests from external sources, such as successive stream requests from recorders.	Reboot the camera in order to restore normal functionality.
The camera cannot run Motion Detection Analytics on Highest H264 resolution on both 5MP & 3MP models. MD Analytics becomes available only at lower settings – 1920x1440 or lower.	<p>You cannot enable MD at these settings – MD Analytics only becomes available at lower settings –1920x1440 or lower. If you want the primary stream to be the highest resolution available on the camera, set the second stream to a lower resolution and use this stream for MD analytics.</p> <p>On NVR integration, edge analytics are disabled until a supported stream resolution for MD is selected.</p>

Illustra Pro 5MP, 3MP & 2MP Mini-Dome Series	
Description	Suggested Work-Around
On the i825 FMD web user interface, the Analytics MD Area drawn saves as slightly larger than the original drawing. The area will be increased by 1-2 mm thickness.	Readjusting of area when saved is minimal but if required adjust your original drawing to accommodate for the small increase that occurs when saving.
In order for video events to be recorded to the SD card, the SD Card must have minimum of 200MB of free space.	Use high capacity SD cards for recording and make sure SD cards are formatted and empty before use.
In the eventuality of an SD card format, you need to disable and enable Enable Event Record in the Record Setting page to reinstate recording.	None.
The audio in the web user interface starts with some interference but adjusts after about a minute of streaming and will feature this issue unless deactivated and activated again.	This is an audio stream initialization issue and only lasts for a minute- it will not affect running audio.
On the Illustra Pro Mini-Dome series camera with NVR integration, the audio in the web user interface intermittently plays back audio with interference.	This issue is web user interface specific and only occurs when audio is enabled on an NVR. The audio must be streamed to the web user interface for several minutes before the quality begins to improve. Each Stream restart requires several minutes in order to adjust. This issue does not affect the quality of the NVR audio stream.
On the Illustra Pro Mini-Dome series camera with NVR integration, following camera reboot or upgrade, the audio on the web user interface is not available, if the user is streaming audio to NVR. Only audio on the web user interface is affected.	This issue is web user interface specific and only occurs when Audio is enabled on the NVR – the enable button has only functionality in the web user interface and does not affect audio stream connections to NVR.
On the Illustra Pro Mini-Dome series camera with exacqVision integration, when camera Audio is enabled through the exacq Server, the web user interface audio input stops working.	Once Audio is enabled on exacq – when audio is requested on the web user interface, audio no longer works. This issue relates only to the web user interface and does not affect audio stream connections to exacqVision.
One touch Focus ROI, Exposure ROI Weighted, White balance manual or auto ROI, do not recall the previous configuration, when accessing the feature using the web user interface - the ROI will reset back to default setting (centre of screen).	For Focus, you are required to set the ROI again, if default is not desired, before running the one touch command again on the web user interface. For other picture settings, the area remains unchanged unless you move the ROI area. This is a web user interface limitation only – API integration recalls the correct ROI when using the one touch feature through a VE NVR or through exacqVision.

Illustra Pro 5MP, 3MP & 2MP Mini-Dome Series	
Description	Suggested Work-Around
The camera has a “Phone home” function in the software. However, it currently has no supported application or feature functionality.	None.
When using IE10 or IE11 browsers, you are unable to login to the web user interface if you select compatibility mode.	Do not select the Compatibility view option when accessing the camera web user interface.
<p>The Illustra Pro Mini-Dome series web user interface is not fully compatible with IE8 -9 – when using the browser files cannot be uploaded to the camera.</p> <p>This affects the upload of:</p> <ul style="list-style-type: none"> • Firmware • Applications • Licence Certificate • Security Certificates • Backup files • Audio out clips 	<p>This limitation affects all cameras that use this platform. To enable support for IE10 and IE11, some changes were required in the code that affect the function in older IE versions.</p> <p>Possible workarounds:</p> <p>Solution to enable uploads:</p> <ul style="list-style-type: none"> • Install IE10 or above • Install alternative browser –Google Chrome or Mozilla Firefox. <p>Solution to FW upgrade and backup and restore only</p> <ul style="list-style-type: none"> • Install Illustra Connect tool that is included on the camera CD; the installer will also offer installation of the .Net pre-requisite, which is not present on ExacqVision Servers • Download and install Illustra Connect tool from www.illustracameras.com and the .Net pre-requisite from the Microsoft website.
The camera web user interface cannot stream a 5MP resolution (2592x1944) at 100% aspect ratio, while on Live view tab. Viewing within setup configuration pages is not affected.	To stream 5MP resolution to the web user interface, choose a camera screen setting of 75%. 50% or 25% (default).
The web user interface zoom slider does not show current status of zoom if it has been changed using ONVIF or API3 commands.	Refresh page to update the slider position.
<p>When user sets Flicker control to 50HZ, shutter speeds are adjusted to prevent image flicker from mains frequency lighting. It also has the knock-on effect of limiting fps in gaming mode to 25 for 50Hz and 30 fps for 60Hz.</p> <p>Changing this setting has no effect on the web user interface stream configuration page – 30 FPS will still be the highest FPS available even when set to 50HZ.</p>	None.

Illustra Pro 5MP, 3MP & 2MP Mini-Dome Series	
Description	Suggested Work-Around
Analogue output (both PAL & NTSC) have 30% less amplitude compared to i600.	Will be managed as a rolling change going forward. The issue will be addressed in two phases. Phase I: Modify color space matrix - Register change only Phase II: HW Change- Implement SAG circuit and PCB signature.
When in gaming mode, if the camera experiences a rapid increase in light level (+500lux)from darkness to full light, the framerate can show a FPS drop (<5 fps) for a period of up to 10 seconds while the camera adjusts to the new light levels. Following this, the camera will reinstate full/consistent FPS.	Set quality to Highest to avoid this issue.
2MP only: When corridor mode is selected, the camera resolution remains at an orientation of 16:9, rather than changing to 9:16. Example: After changing the resolution of 1920x1080 to corridor mode, the same resolution displays, instead of being changed to 1080x1920.	None.
2MP only: Face orientation does not update once corridor mode is changed. Face orientation always references the default mounting.	None.
When an audio clip is played back using the web user interface or linked to an Event (Analytics, DIO) and the audio clip terminates, it also halts the audio input for up to 5 seconds.	Only play Audio out Clips when really necessary to avoid affecting the capture of audio input.
Currently, the camera supports blur detection. Blur detection cannot be associated to camera internal events such as SMTP and FTP. However, when the camera is integrated with VE NVR all internal events can be associated using victor.	Integrate the camera with victor.
During autofocus, the camera will not carry out any zoom-focus commands. If the zoom slider is moved during autofocus, the moves will not take affect and once the autofocus operation is complete, the zoom slider on the web user interface may show an incorrect zoom position.	Refresh the page to show the correct zoom position.

Illustra Pro 5MP, 3MP & 2MP Mini-Dome Series	
Description	Suggested Work-Around
When the camera performs a zoom – it is not guaranteed that the image will always be in focus after the zoom level is changed – you need to perform a focus adjustment after a zoom change.	Always perform a focus adjustment after a zoom change.
Illustra Pro 2/3/5mp ONVIF - Unable to successfully change image properties on the camera.	Use the web user interface to set Image properties.
Illustra Pro 2/3/5mp Localization FW 1.01- The Arabic video pane does not set and moves with window resizing. Depending on the web user interface window size, the video pane either covers part of the web user interface	Resize the window to correct the possible text overlays.
Security IP filtering - when populating the table, use the IP addresses rather than the MAC address as the MAC address can cause incorrect behavior.	If locked out of the camera after applying a MACaddress - try using a new machine or if still unsuccessful, reset the camera using Illustra Connect or a hardware reset
Illustra Pro Mini-Dome: 2, 3, & 5MP- Unable to change admin password when in HTTPS.	Change password before setting camera to HTTPS
Illustra Pro Mini-Dome: 2 3 & 5MP: ROI causes video to flicker in non ROI region when Rate Control is set to CBR and the value is less than 2000.	It is advised not to use ROI when using lower CBR bitrates. If ROI is required, increase CBR to over 2000 or set bitrate control to VBR and select lower qualities.
UPnP Discovery- The camera needs to be rebooted if a user changes the IP address of the camera before UPnP can discover the camera.	Reboot the camera after changing the IP address of the camera.
An UPnP-discovered device will persist in Network folder of Windows computer after UPnP has been disabled on the camera.	Windows stores the device information in cache and only clears it every few minutes. There is nothing that can be done on the camera to prevent this information from being stored
After a pro-longed period of time the settings on the GUI may incorrectly appear blank for Network, Health Monitor and Date/Time.	A camera reboot will fix this issue.
Occasionally a credentials pop-up is visible when the Motion Detection tab is selected in Analytics. On Chrome this pop-up can't be closed and on Internet Explorer it returns a few minutes after credentials are entered.	Use Internet Explorer when enabling motion detection.
CIFS test text file isn't being sent when the test button is pressed in the CIFS set-up page. CIFS still operates as normal but the user won't see the test file.	None.

VE NVR Integration issue

Description	Suggested Work-Around
<p>Illustra Pro Mini-Dome: 2MP-Camera very slow adding to VE NVR when Corridor is enabled (timeout message) but camera adds successfully.</p>	<p>There is a slight delay of API3 commands while camera performs in corridor mode intermittently. This can result in a Timeout message when adding camera to VE NVR. However, the camera is added successfully– this does not affect Integration on either API or ONVIF platforms.</p>

exacq Server & Edge app issues

Description	Suggested Work-Around
<p>Illustra Pro Mini-Dome: 2MP- exacq Edge application - camera will take approximately 6 minutes to restore live view when rotation is requested (camera reboot takes approximately 2 minutes).</p>	<p>exacq issue currently being investigated.</p> <p>Using the Edge app to rotate the 2MP into corridor mode, the camera will take approximately 6 minutes to become available again following command issue – On other platforms it will take approximately 2 minutes.</p>
<p>Illustra Pro Mini-Dome: 2MP- Edge Server 7.0 and Edge app- Server is unable to set MD area when camera is in corridor mode.</p>	<p>exacq issue currently being investigated</p> <p>exacq Edge and exacq do not support configuring directly from exacq Client. Corridor mode and MD shall be configured on camera prior to adding to Client.</p>
<p>Illustra Pro Mini-Dome 2MP Integration with Edge application - camera takes approximately 6 minutes to restore live view when rotation is requested (camera reboot takes approximately 2 minutes).</p>	<p>This is a default setting on exacq Vision server which is causing the delay. You can change the default P Reconnection time setting in Network tab of the System page so that the stream reconnection would be shorter than the defaulted 5 min.</p>

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