**Illustra Pro Series 2MP Mini-Domes**

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# Contents

[1 Bid-Spec 3](#_Toc431826133)

[2 Product Description 3](#_Toc431826134)

[3 Product Specification 6](#_Toc431826135)

[3.1 Resolutions 9](#_Toc431826136)

[3.2 IR Illuminator 9](#_Toc431826137)

[3.3 MJPEG/JPEG Compressor Key Functionality 9](#_Toc431826138)

[3.4 H.264 Compressor Key Functionality 9](#_Toc431826139)

[3.5 Network 10](#_Toc431826140)

[3.6 Base Protocol and Underlying Layers 11](#_Toc431826141)

[3.7 Network Address Configuration 11](#_Toc431826142)

[3.8 Network Name Resolution 12](#_Toc431826143)

[3.9 Email 12](#_Toc431826144)

[3.10 Time Synchronization and Configuration 12](#_Toc431826145)

[3.11 CIFS Mounting 12](#_Toc431826146)

[3.12 Remote Shell Access 12](#_Toc431826147)

[3.13 Authentication and Security 12](#_Toc431826148)

[3.14 Firewall 13](#_Toc431826149)

[3.15 Discovery 13](#_Toc431826150)

[3.16 ONVIF Video and Control Interface 13](#_Toc431826151)

[3.17 Interface Technical Specifications 14](#_Toc431826152)

[3.18 ONVIF Functions Supported 14](#_Toc431826153)

[3.19 microSD Card 15](#_Toc431826154)

[3.20 Dimensions 15](#_Toc431826155)

[3.21 Weight 15](#_Toc431826156)

[3.22 Environmental 15](#_Toc431826157)

[3.23 Power 16](#_Toc431826158)

[3.24 Surge Protection 16](#_Toc431826159)

[3.25 Regulatory Compliance 17](#_Toc431826160)

[4 Model Numbers and Descriptions 18](#_Toc431826161)

# Bid-Spec

The Illustra Pro 2MP Mini-Dome cameras with UltraVision lowlight performance technology are the latest cameras released in the Illustra Pro product line offering premium quality high definition video and dynamic bandwidth management. The cameras are designed to deliver unsurpassed video quality under all conditions and to do so using technology that economizes on operational costs of bandwidth usage and recorded video storage. The cameras operate across an IP network infrastructure such as the internet, a LAN or a WAN. The Pro 2MP Mini-Dome Series has industry leading color low light performance delivering crisp low-noise clarity at all light levels. At extreme low light levels below 1 lux where color video is no longer possible, low light clarity is bolstered by the True Day/Night (TDN) capability plus the use of optional on-board IR illumination which enables video capture without visible light. Powering the cameras, on-board heater for outdoor cameras and the optional IR illuminator is easily accomplished with standard PoE (802.3af). The illustra Pro Series offers versatility in form factor, motorized lens focal lengths, housing color and bubble options.

Onboard camera intelligence can detect faces to identify them as a region of interest to dynamically increase image quality in that region in comparison with the rest of the view. Users can also define up to 5 additional compression/quality priority regions to tailor and optimize bandwidth usage. The mini-domes are vandal resistant rated to IK10 , while the indoor cameras have an integrated surface, electrical box and recessed mounting, that eliminate the need for additional hardware and cost. In addition, the indoor cameras are also plenum-rated. These ONVIF profile S-compliant cameras provide a range of options including on-board motion detection, True Wide Dynamic Range (True WDR) and exposure control. The combination of features, premium quality components and exception video make the Illustra Pro Series Mini-Domes the primary choice in high definition video surveillance cameras.

Key differentiators are:

* Illustra UltraVision lowlight performance for exceptional lowlight color video below 1lux
* True Wide Dynamic Range of 96db for clarity in backlit environments
* Multiple streams at 2MP 1080 @30fps
* On board Analytics including Motion Detection, Face Detection, Blur Detection, Health Monitoring and Apps support
* Integrated hard surface, electrical box and recessed mounts (indoor models) for easier and faster installation
* Face detection and user defined compression quality for prioritized regions of interest

# Product Description

* The mini-dome cameras have integrated 3-9mm and 9-22mm motorized varifocal lens options.
* The 3-9mm and 9-22mm lenses have a motorized zoom function with remote operation via the camera’s web interface.
* The 3-9mm and 9-22mm lenses have a one-touch auto focus feature with remote operation via the camera’s web interface.
* The indoor and outdoor camera dome chassis are vandal resistant, constructed of aluminum with a polycarbonate dome bubble.
* The dome camera has a 3-axis gimbal with 365° pan, 75° tilt, and 175° Z-rotation for easy and accurate positioning.
* The camera is surface mountable with no additional hardware needed.
* The camera has a threaded conduit access in the rear and side of the body.
* The camera has an optional pendant mount and wall mount accessories..
* The optional wall mount has conduit access via the rear, right and left sides of the mount.
* The indoor camera has an integrated flush mount additional hardware not required.
* The indoor camera includes a plenum accessory to meet requirements for flush mount, plenum rated installations
* The camera can attach to single or double gang electrical boxes without an adapter.
* The outdoor dome cameras have an enclosure complying with IP66 weatherproofing standards.
* The outdoor camera is operational to -30°C (PoE network power) and -40°C (24Vac Power).
* The outdoor camera has a unique heater ring design that reduces or eliminates condensation from the field of view without the use of desiccant or fans
* The outdoor camera reduces or eliminates condensation from the field of view without the use of a fan.
* The camera supports both H.264 and MJPEG compression.
* The camera has dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
* The camera has dual non-identical concurrent streams (different frame rate, bit rate, resolution, quality and compression format).
* The camera has Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Windows Media Player, Apple QuickTime, VLC Player and others.
* The camera’s output has a maximum resolution of 1920x1080 at a maximum frame rate of 30 frames per second.
* The camera provides 5 level settings for H.264 compression quality.
* The camera has the options to operate with the H.264 codec in constant bit rate and variable bit rate.
* The camera supports TCP/IP, IPv4, IPv6, TCP, UDP, HTTP, HTTPS, SFTP, SNMP,FTP, DHCP, WSDiscovery, DNS, DDNS, RTP, TLS, Unicast, Multicast, NTP, SMTP, WS-Security network protocols.
* The cameras feature automatic exposure, automatic white balance, true wide dynamic range, shutter speed control, true day night, 50/60Hz selectable flicker control, programmable brightness, contrast, saturation, sharpness, simultaneous delivery of full-field view.
* The camera incorporates necessary algorithms and circuits to detect motion in low light with clarity.
* The camera’s primary power source is Power over Ethernet (PoE) complying with the IEEE 802.3af standard.
* The camera has IR illuminators capable of illumination up to 60 feet powered by PoE (802.3af).
* The camera has the alternative option to be powered by PoE or 24 VAC.
* The camera’s operating ambient temperature is -40°C (-40°F) to 50ºC (122ºF) for warm start conditions (for outdoor fixed dome models).
* The camera is FCC Part 15, Class A and CE compliant.
* The camera is UL listed.
* The camera is IK10 vandal resistant.
* The recessed indoor camera models are UL rated as suitable for use in environmental air handling spaces, other than inside air ducts or furnace plenums, and so stated in the installation manual.
* The camera is able to detect multiple faces in a scene and increase the bit rate to enhance up to 5 faces as ROI.
* The camera have 5 user definable regions of interest (ROI) where the user can define specific areas to increase the bit rate to selectively enhance video quality
* The camera has the ability to directly export snapshot images in JPEG form and video clips via email, FTP, CIFS (Common Internet File System) and on board SDHC card.
* The camera can store and utilize the user name and password of the SMTP server to enable protected email export.
* The camera supports up to 128GB SDHC memory cards
* The camera can record to an SDHC card based on motion detection, face detection, Blur Detection, Alarm input.
* The camera can record to a SDHC card in a continuous overwrite fashion.
* Recorded video on the camera’s SDHC card is accessible via the cameras web browser GUI.
* The camera has the capability to provide at least 4 independent privacy zones.
* The camera has 1 alarm output and 2 alarm inputs.
* The camera has a Linux based operating system.
* The camera supports bi-directional audio in half and full duplex.
* The camera can send an alarm based on on-board motion detection.
* The camera can send an alarm based on the detection of a face.
* The camera can send an alarm when the image being blurred or out of focus.
* The camera supports True Wide Dynamic Range (TWDR) up to 96dB.
* The camera is offered in white and black casing colors with clear or tinted bubbles
* The camera has covers for trim ring screws that match the color of the trim ring.

# Product Specification

This section provides product specifications for the Illustra Pro 2MP Mini Dome.

|  |  |
| --- | --- |
| **General Features** | |
| Language Selection | English (default), Arabic, Czech, Danish, German, Spanish, French, Hungarian, Italian, Korean, Japanese, Netherlands, Polish, Portuguese, Swedish, Turkish, Chinese Traditional, Chinese Simplified. |
| Camera body color | White RAL 9003, or Black Pantone C. Black Pantone option not available with LT camera models. |
| Vandal resistant rating | IK 10 |
| Max Resolution | (1920x1080) 1080p 16:9 |
| **Video Processor** | |
| SoC manufacturer | Texas Instruments |
| SoC manufacturer part number | TMS320DM8127 |
| OS | Linux kernel Ver. 2.6.37 |
| ROM/flash size | 512 MBytes |
| Ram size | 1 Gbytes DDR3 |
| Reboot time | 45s |
| Battery hold up time | 10 days |
| Plenum rating | Compliant |
| **Illuminator** | |
| Wavelength | 850 nm |
| IR Distance | 20m |
| Number of IR LED devices | 16 |
| Manufacturer | Intersil |
| Manufacturer Part Number | SFH 4258s |
| **Video** | |
| Video codecs | MJPEG - H264 |
| Frame rate range | 1-30 |

|  |  |
| --- | --- |
| Encoding method | G711 |
| Standard compliance | G711 |
| Sampling rate | 8 kHz |
| Sampling bits | 16 |
| Frequency response range | 300-4,000 Hz |
| Dynamic Range | 93dB |
| Input type | Electret Microphone single ended |
| Input impedance | 20 kohm |
| Input level | 2 V p-p typical |
| Input connector | 2 contacts on the 10-position terminal block |
| Output type | Mono, Single-ended output, 0.707VRMS to  2Vpp, into 16 ohm headphone, 10 KOhm line output, 8 ohm 30mW Speaker Drive |
| Output connector | 2 contacts on the 10-position terminal block |
| SNR | Input 92dBA , Output: 102 dBA |
| Distortion | Input THD= -94 dB; Output THD= -70 dB |
| **Client interfaces** | |
| Browsers supported & version | IE 10 and 11. Firefox, Chrome |
| illustra API version | AD iAPI3 |
| ONVIF Profile S version | Core spec. version 2.4 |
| ONVIF test tool version | Test tool version 14.06 |
| **Special Features** | |
| Motion detection | ROIs defined by a 40x30 grid with no limit of configured. Group or individually selectable by draw and drag on the GUI. |
| Face detection | 1 face detection region covering the full FoV. Not adjustable. |
| Higher compression quality ROI | Up to 5 user defined regions. Selectable by draw and drag on the GUI. |
| Privacy zones | 4 adjustable rectangular privacy zones |

|  |  |
| --- | --- |
| Text overlay | Font Size 40 pixels high |
| **Event alarms** | |
| Event triggers | Video motion, Blur detection, Face detection, Scheduled Alarm input, Network loss, Reset and Health monitoring |
| Pre-alarm recording | 10s pre and post |
| Event actions | SMTP e-mail file, transfer FTP file transfer, SFTP file transfer and SD card storage, CIFS mount |
| Alarm input | 3V~5V (High) / 0.8V (Low). Not available on the LT camera model. |
| Auxiliary output | 1 Amp, relay contact. Not available on the  LT camera model. |
| **I/O Interfaces** | |
| SD card | One Micro SD slot, supporting the following Card types: Standard SD format up to 4GB, SDHC format up to 32GBytes and SDXC up to 128GBytes. |
| Alarm inputs | Two isolated Alarm Inputs: 2 contacts with one common return contact on the 10-position terminal block |
| Video output | One external analog video output port, Type  BNC, Format: NTSC/PAL 1V p-p |
| IP Connector | RJ-45 |
| LED indicators | Two Network LEDs on RJ-45 connector indicating: 1. Link has been established. 2: Net- work activity. |
| Reset/Reboot Push Button | One Reset/Reboot' Pushbutton- 3 options 1: Reboot the Unit 2. Return to factory defaults  3. Return to defaults except network |
| Phone home Push Button | One Phone Home Pushbutton: Triggers Phone Home application (future enhancement). |
| Audio I/O | Audio Input: 2 contacts from microphone (differential) on the 10-position terminal block. Audio Output: 2 contacts to speaker (Single ended) on the 10-position terminal block |
| Micro Switches | 3 Micro switches; 1: NTSC/PAL, 2: Future Enhancement, 3: IR LEDs disable |

## Resolutions

The following resolutions are available on Stream 1, Stream 2,.and Stream 3:

|  |  |  |
| --- | --- | --- |
| **Stream 1** | **Stream 2** | **Stream 3** |
| (1920x1080) 1080p 16:9 | (1280x720) 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 |  |  |

## IR Illuminator

|  |  |  |
| --- | --- | --- |
| **Lens** | 3 to 9 mm | 9 to 22 mm |
| **Min. illumination color (lux)** | 0.03 | 0.04 |
| **Min. illumination color (lux)** | 0.001 | 0.002 |
| **Dynamic Range (db)** | 96 | 96 |

## MJPEG/JPEG Compressor Key Functionality

The JPEG codec supports the JPEG baseline DCT encoding process with the following additional configuration option:

• Quality: 1-100

## H.264 Compressor Key Functionality

The H.264 codec supports the JPEG baseline DCT encoding process with the following additional configuration options:

|  |  |
| --- | --- |
| **Category** | **Details** |
| Profile | High level 4.2 |
| GOP Length | 1-150 |
| Rate Control | CBR VBR |
| Frame Skip | With CBR |
| Bit Rate (CBR) | Selectable 16 kbps to - 10Mbps |
| Quality (VBR) | Highest, High, Medium, Low, Lowest. |

## Network

This section covers the technical aspects and operation of all the core network related components.

|  |  |
| --- | --- |
| **Category** | **Details** |
| 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 |
| Base protocol | TCP/IP - RFC4614  CIFS. SFTP |
| Internet layer addressing | IPv4 - RFC791  IPv6 - RFC2460 |
| Transport layer | TCP - RFC973  UDP - RFC768 |
| Data transmission | HTTP/HTTPS - RFC2616  FTP - RFC959 |
| Network address configuration | DHCP - RFC2131 Zeroconf - RFC3927 Static IP address |
| 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/PEEP  HTTPS (HTTP over TLS) - RFC2818  WS-Security  Multi-level password protection  IP address filtering HTTPS encryption User access log |
| Discovery | WS-discovery - ws-discovery.pdf |
| Streaming | RTP - RFC3550  RTSP - RFC2326  Unicast Streaming  Multicast RFC 1112 level 1 |
| Remote Shell  Access | SSH - RFC2326 |
| Users | 10 simultaneous users |
| Firmware upgrade | SD card / browser/ illustra Connect |
| External Interface Protocol | SOAP - SOAP 1.2  ONVIF - 2.4  WS-Addressing  WS-Eventing |

## Base Protocol and Underlying Layers

• The camera is an IP camera compatible with TCP/IP protocol.

• The camera supports both IPv4 and IPv6, running either in single stack mode or dual stack mode

(supporting both IP versions at the same time).

• TCP is used for two way communication and UDP will be used for broadcasting protocols.

• HTTP is used for the ONVIF protocol as transport mechanism for SOAP calls.

• FTP can be used to push alarm buffer video clips to a specified remote FTP server. The camera can use anonymous FTP or a specified username and password. There is no incoming FTP service.

IP multicast RFC 1112 level 1 support for sending but not receiving multicast IP datagrams to a group of interested receivers in single transmissions is supported for audio, video and metadata stream types. The streams can be controlled using the two methods described below:

1 A client can request a multicast stream using RTSP. When the client requests a stream the server will respond with a multicast address in the ‘c=’ field of the describe response (RFC 4566). The client will then respond with a Setup request with the TransportType set to multicast, the device shall stop sending packets for a multicast configuration when no more RTSP sessions are using the same multicast con- figuration.

2 An RTP multicast UDP stream can be started by an ONVIF ‘StartMulticastStreaming’ request with a specified media profile. Streaming continues until ‘StopMulticastStreaming’ is called for the same profile

Multicast RTSP sessions support the same authentication methods as unicast RTSP sessions.

## Network Address Configuration

• **DHCP (Dynamic Host Configuration Protocol)** will be enabled by default on the camera. During the boot process, the camera will attempt to acquire a network address via DHCP. The DHCP client will be configured to do 3 attempts with a 20 second timeout.

• **Static IP** can be used if the camera cannot be found on the network using DHCP. In this mode, the static IP address, subnet mask, default router and a primary and secondary DNS server can be configured. This will be used by the camera when turned on. It is possible to assign a static IPv4 address while still allowing the IPv6 addressing to be Link Local (automatically assigned).

• **Dynamic DNS or DDNS Dynamic Domain Name System** is supported for updating, in real time a changing IP address on the Internet to provide a persistent domain name for a resource that may change location on the network. RFC 2136 Dynamic Updates in the Domain Name System. In this situation the camera talks only to the DHCP server and the DHCP server is responsible for updating the DNS server. The camera sends its hostname to the DHCP server when requesting a new lease and the DHCP

server updates the DNS records accordingly. This is suitable for an intranet style configuration where there is an internal DHCP and DNS service and the user wants only to access their camera within their own network.

By default, when making a DHCP request the camera will transmit its hostname as part of the DHCP request. This option is not user configurable. The cameras hostname matches the configurable parameter “camera name” on the web GUI. Any DHCP request will contain the cameras hostname for use of the DHCP server to forward to an appropriate DNS server.

## Network Name Resolution

The camera uses DNS protocol to resolve network names. DNS server address will be acquired via DHCP or manually set for static IP configuration. Camera configuration supports symbolic names for all remote end-points(except DNS servers) but in this mode will depend on a

working and correctly configured remote DNS server.

## Email

The camera can send email alerts via SMTP to one specified mailbox using a specified SMTP server. Support is provided for basic authenticated SMTP using username and password for login on the SMTP server.

## Time Synchronization and Configuration

The camera supports NTP for time synchronization. The NTP server will have to be configured by the user. Alternatively, time can be manually configured via the Web GUI or ONVIF.

## CIFS Mounting

The camera supports the CIFS protocol for mounting a windows file share. This is configured with a network path, domain name and password. It can be used to store video associated with alarms.

## Remote Shell Access

For security reason, remote shell access is limited exclusively to Tyco Security Products Level 3 Technical Support. This function is not available to the end-user.

It is recommended to keep SSH Enable disabled. This function should only be enabled this when it is requested by Tyco Security Products Level 3 Technical Support.

## Authentication and Security

• HTTPS (HTTP over TLS) is used for the Web GUI. HTTP connections to the camera IP will automatically be redirected to the HTTPS login page.

• The camera will automatically create a SSL certificate file to use for HTTPS. It is possible to upload a custom SSL certificate if validation is desired.

• The ONVIF service uses WS-Security Username Token Digest.

## Firewall

The camera will provide a firewall, which is disabled by default. The firewall will be able to block ICMP and allow RP filtering and SYN Cookie Verification. The firewall will offer the ability to block selected IP or MAC addresses and allow access exclusively to selected IP and MAC addresses.

**Note:**

Using the “Deny all” mode, could result in a miss-configuration and require resetting the camera via the physical reset button.

## Discovery

The product supports WS-Discovery for discovery purpose.

For each camera found on the network, the discovery tools will report:

• Serial number.

• Model Name.

• Product Code (HardwareID).

• MAC address.

• Current IP address.

• Firmware version.

This tool will allow configuration of:

• DHCP

• Static IP configuration

• Select a number of cameras and push a firmware update via ONVIF

## ONVIF Video and Control Interface

The primary video and control interface to the camera is the Open Network Video Interface Forum global standard for the interface of network video products. This uses SOAP over HTTP. The camera provides ONVIF for integration to internal and external systems.

## Interface Technical Specifications

|  |  |
| --- | --- |
| **Category** | **Details** |
| Description Language | WSDL |
| Web Services Specification | DPWS |
| Web Services Tool Kit | WS4D |
| Web Services Protocol | SOAP |
| Message Format | XML |
| Discovery | WS-Discovery |
| Security | WS-Security |
| Video Transport | RTP/RTSP |
| Audio Transport | RTP/RTSP |
| Event Handling (alarms) | WS-Eventing  WS-Base Notification  WS-Topics |

|  |  |
| --- | --- |
| **Category** | **Details** |
| Service Connection | WS-Addressing |
| Security Permissions | WS-Policy (ken to think about) |
| Data Object Exchange Spec. | WS-Transfer |

## ONVIF Functions Supported

The following ONVIF functions are supported on the camera:

**Device Management**

Return List of Capabilities

Network Management

• Discovery

• DHCP hostname

• DNS

• NTP

**System Management**

• Device information

• Backup

• Restore

• Get/set system date and time

• Set camera to factory defaults

• Get system logs

• Get support information

• Reboot

• Get/set/remove scope (assigns ID data)

• Fault codes

**Security**

**Configure Video and Audio**

• Video Source

• Snapshot JPEG

**Event Handling Basic Notification Interface**

## microSD Card

External access is provided for a microSD for video alarm storage and audio output pre-recorded clips. The maximum size of microSD card that can be used with the camera is 128GB.

Refer to the Quick Reference Guide provided with the camera for information on how to remove and install the microSD Card.

## Dimensions

|  |  |
| --- | --- |
| **Model** | **Dimension** |
| Indoor | 130 mm x 138 mm x 138 mm (HxWxL) |
| Outdoor | 135 mm x 160 mm x 160 mm (HxWxL) |

## Weight

|  |  |
| --- | --- |
| **Model** | **Weight** |
| Indoor | 1.0 kg |
| Outdoor Model | 1.8 kg |

## Environmental

The product is designed to meet the following environmental conditions:

|  |  |
| --- | --- |
| **Model** | **Operating temperature** |
| Indoor | -10° to 40°C (14° to 104°F) |
| Outdoor Model (24VAC) | -40° to 50°C (-40° to 122°F) |
| Outdoor Model (POE) | -30° to 50°C (-22° to 122°F) and Cold Start at -20°C |
| Storage Temperature | -40° to 60°C (-40° to 140°F) |

## Power

|  |  |
| --- | --- |
| **POE** | |
| PoE class | PoE 802.3af, Class 3 |
| Wattage | Max= 12.95Watts |
| Is LLDP supported? | LLDP support is built into the file system, but that service is disabled by default. We could probably turn it on, but we haven’t done so yet |
| 24 VAC | |
| Voltage range | 24 VAC +/- 25% |
| Line frequency range | 24 VAC +/- 25% |
| **Power (24 VAC line)** | |
| Indoor with no IR | 16 VA RMS |
| Indoor with IR illuminators on | 19 VA RMS |
| Outdoor with heaters on and no IR | 39 VA RMS |
| Outdoor with heaters & IR on | 42 VA RMS |
| **Power (Max at high line)** | |
| Outdoor with heaters & IR on | 52 VA RMS |
| Design tolerance | +30%/-20% or to 31.6VAC, 47Hz to 63H Operates to 18.2VAC at room temperature |
| In rush current | 7.1 Amps inrush surge for 3.2 milliseconds at low line, 12 Amps at high line. |

## Surge Protection

|  |  |
| --- | --- |
| **Category** | **Details** |
| IP | TVS rated at 75V, 400A, 8/20us impulse  Galvanic isolation transformer coupled,  1,500Vrms |

## Regulatory Compliance

|  |  |
| --- | --- |
| Emissions | FCC: Part 15 Class A CE: EN55022 Class A AS/NZS CISPR 22 Class  A ICES-003/NMB-003 Class A |
| Immunity | CE: EN50130-4 |
| Safety | USA (UL): UL 60950-1  Canada (cUL): CAN/CSA-C22.2 No. 60950-1  CB Scheme: IEC 60950-1  European Union: EN 60950-1 |
|  | EMC:  USA (FCC): CFR 47 Part 15  Canada: ICES-003/NMB-003 Issue 5  European Union: EN 55022:2010  European Union: EN 61000-3-2:2006/A2:2009  European Union: EN 61000-3-3:2008  Australia/New Zealand: AS/NZS CISPR 22:2009  Product Assurance Testing: IEC 62599-2  EN55024  EN50130-4:2011  IEC 61000-6-1 |
| Vandal- Resistant | IK10 |
| Environmental | RoHS, EU Directive 2002/95/EC WEEE, EU Directive 2002/96/EC |

# Model Numbers and Descriptions

|  |  |
| --- | --- |
| **Model** | **Description** |
| **IPS02D2ICWTT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, clear, white, TDN, TWDR |
| **IPS02D2ICWIT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, clear, white, TDN w/IR, TWDR |
| **IPS02D2OCWTT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, clear, white, TDN, TWDR |
| **IPS02D2OCWIT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, clear, white, TDN w/IR, TWDR |
| **IPS02D2ISWTT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, smoked, white, TDN, TWDR |
| **IPS02D2ISWIT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, smoked, white, TDN w/IR, TWDR |
| **IPS02D2OSWTT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, smoked, white, TDN, TWDR |
| **IPS02D2OSWIT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, smoked, white, TDN w/IR, TWDR |
| **IPS02D2ICBTT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, clear, black, TDN, TWDR |
| **IPS02D2ICBIT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, clear, black, TDN w/IR, TWDR |
| **IPS02D2OCBTT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, clear, black, TDN, TWDR |
| **IPS02D2OCBIT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, clear, black, TDN w/IR, TWDR |
| **IPS02D2ISBTT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, smoked, black, TDN, TWDR |
| **IPS02D2ISBIT** | Illustra Pro 2MP Mini-dome, 3-9mm, indoor, vandal, smoked, black, TDN w/IR, TWDR |
| **IPS02D2OSBTT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, smoked, black, TDN, TWDR |
| **IPS02D2OSBIT** | Illustra Pro 2MP Mini-dome, 3-9mm, outdoor, vandal, smoked, black, TDN w/IR, TWDR |
| **IPS02D3ICWTT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, clear, white, TDN, TWDR |
| **IPS02D3ICWIT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, clear, white, TDN w/IR, TWDR |
| **IPS02D3ISWTT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, smoked, white, TDN, TWDR |
| **IPS02D3ISWIT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, smoked, white, TDN w/IR, TWDR |
| **IPS02D3ICBTT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, clear, black, TDN, TWDR |
| **IPS02D3ICBIT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, clear, black, TDN w/IR, TWDR |
| **IPS02D3ISBTT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, smoked, black, TDN, TWDR |
| **IPS02D3ISBIT** | Illustra Pro 2MP Mini-dome, 9-22mm, indoor, vandal, smoked, black, TDN w/IR, TWDR |
| **IPL02D2ICWCT** | Illustra Pro LT 2MP Mini-dome, 3-9mm, indoor, vandal, clear, white, color only, TWD |
| **IPL02D2ISWCT** | Illustra Pro LT 2MP Mini-dome, 3-9mm, indoor, vandal, smoked, white, color only, TWDR |
| **IPL02D3ICWCT** | Illustra Pro LT 2MP Mini-dome, 9-22mm, indoor, vandal, clear, white, color only, TWDR |
| **IPL02D3ISWCT** | Illustra Pro LT 2MP Mini-dome, 9-22mm, indoor, vandal, smoked, white, color only, TWDR |
| **Theia Lens 2MP Models** | |
| **IPS02D0OCWTT** | Illustra Pro 2MP Mini-dome, 1.8-3mm, outdoor, vandal, clear, white, TDN, TWDR |
| **IPS02D4OCWTT** | Illustra Pro 2MP Mini-dome, 9-40mm, outdoor, vandal, clear, white, TDN, TWDR |
| **IPS02D0OSWTT** | Illustra Pro 2MP Mini-dome, 1.8-3mm, outdoor, vandal, smoked, white, TDN, TWDR |
| **IPS02D4OSWTT** | Illustra Pro 2MP Mini-dome, 9-40mm, outdoor, vandal, smoked, white, TDN, TWDR |
| **IPS02D0OCBTT** | Illustra Pro 2MP Mini-dome, 1.8-3mm, outdoor, vandal, clear, black, TDN, TWDR |
| **IPS02D4OCBTT** | Illustra Pro 2MP Mini-dome, 9-40mm, outdoor, vandal, clear, black, TDN, TWDR |
| **IPS02D0OSBTT** | Illustra Pro 2MP Mini-dome, 1.8-3mm, outdoor, vandal, smoked, black, TDN, TWDR |
| **IPS02D4OSBTT** | Illustra Pro 2MP Mini-dome, 9-40mm, outdoor, vandal, smoked, black, TDN, TWDR |