

## The new Standard by i-PRO video surveillance

# Full HD Indoor Dome Network Camera with AI engine

The S-Series network cameras offer a new standard in i-PRO video surveillance with drastically improved image quality with advanced technology. It comes with pre-installed AI analytics applications that detects people and vehicles with accuracy, allowing you to easily start state-of-the-art video surveillance.

The camera can be configured while keeping the unit in the box with the acclaimed "Easy Kitting Packaging", making the installation process smooth and easy.

### Key Features

- Drastically improved image quality by advanced technology and AI intelligent Auto
- Pre-installed AI analytics applications to detect human and vehicles. Ready for installing 3<sup>rd</sup> party applications
- Detecting suspicious sound like Gunshot, Yell, Vehicle horn, and Glass break, with external microphones
- Easy Kitting Package enabling installers to configure cameras easily while keeping the unit in the box
- i-PRO Configuration Tool "iCT" can set up 1024 cameras at the same time.

( iCT page : [https://security.panasonic.com/training\\_support/design\\_tools/iCT/](https://security.panasonic.com/training_support/design_tools/iCT/) )

### Key i-PRO Spec.

- Full HD 1080p up to 60fps
- Intelligent Auto (with AI Engine)
- Super Dynamic 144dB
- Color night vision (0.007 to 0.009 lx)
- Smart Coding (with AI Engine)
- Built-in IR LED
- Onvif Profile G / S / T

### Industry examples

- Airport (Passport control / Security checkpoint / Ticket counter)
- Retail / Bank / Education / Hospital / Building



# i-PRO

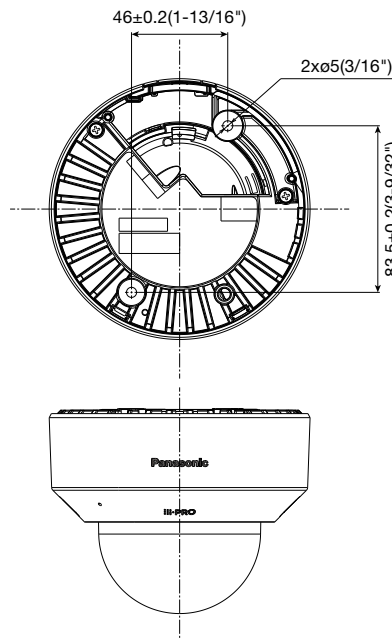
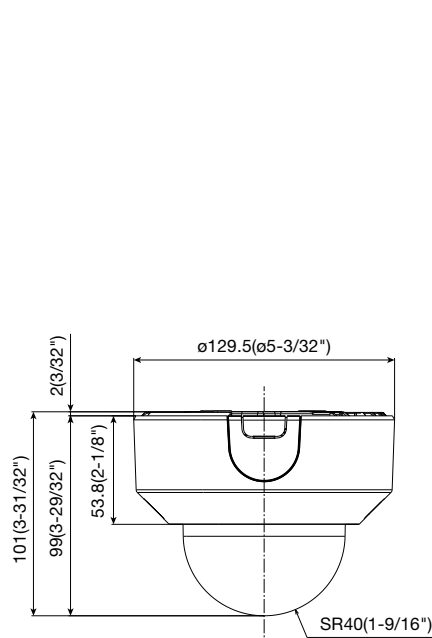
# Specifications

<b>Camera</b>	Image Sensor	Approx. 1/2.8 type CMOS image sensor
	Minimum Illumination	Color : 0.007 lx (30IRE, F1.3, 1/30s) <sup>*1</sup> Color : 0.009 lx (50IRE, F1.3, 1/30s) BW : 0.006 lx (50IRE, F1.3, 1/30s) BW : 0 lx(50IRE, F1.3,1/30s with IR LED)
	White Balance	ATW1 / ATW2 / AWC
	Shutter Speed	[60 fps Mode] 1/60 Fix to 1/10000 Fix, [30fps/15fps mode] 1/30 Fix to 1/10000 Fix [50 fps Mode] 1/50 Fix to 1/10000 Fix, [25fps/12.5fps mode] 1/25 Fix to 1/10000 Fix
	Intelligent Auto	On / Off
	Super Dynamic <sup>2</sup>	On / Off. The level can be set in the range of 0 to 31.
	Dynamic Range	Max.144 dB (Super Dynamic : On, Level 31)
	Adaptive Black Stretch	The level can be set in the range of 0 to 255.
	Back light compensation / High light compensation	BLC (Back light compensation) / HLC (High light compensation) / Off (only when Super dynamic / Intelligent Auto : Off)
	Fog compensation	On / Off (only when Intelligent auto / auto contrast adjust : Off)
	Maximum gain (AGC)	The level can be set in the range of 0 to 11.
	Color/BW (ICR)	Off / On (IR Light Off) / On (IR Light On) / Auto1 (IR Light Off) / Auto2 (IR Light On) / Auto3 (SCC)
	IR LED Light	High / Middle / Low / Off, Maximum irradiation distance : 70 m (Approx. 230 ft) (50IRE) <sup>*1</sup> 50 m (Approx. 164 ft) (30IRE)
	Digital Noise Reduction	The level can be set in the range of 0 to 255.
	Video Motion Detection (VMD)	On / Off, 4 areas available
	Scene Change Detection (SCD)	On / Off, 1 areas available
	Audio Detection	On / Off
	AI Sound classification	Gunshot, Yell, Vehicle horn, Glass break
	AI Analytics	Yes
	Privacy Zone	On / Off, Up to 8 zones available
VIQS	On / Off, Up to 8 zones available	
Image rotation <sup>3</sup>	0° / 90° / 180° / 270°	
Camera Title (OSD)	On / Off, Up to 40 characters (alphanumeric characters, marks)	
Focus Adjustment	Auto focus / Manual	
<b>Lens</b>	Optical zoom	3.1 x (Motorized zoom / Motorized Focus)
	Extra zoom	3.1x - 9.3x (when resolution is 640 x 360)
	Focal length	2.9 - 9 mm (1/8 inches - 11/32 inches)
	Angular Field of View	[16:9 mode] Horizontal : 36° (TELE) - 115° (WIDE), Vertical : 20° (TELE) - 61° (WIDE) [4:3 mode] Horizontal : 28° (TELE) - 82° (WIDE), Vertical : 20° (TELE) - 61° (WIDE)
<b>DORI</b>	Maximum Aperture Ratio	1 : 1.3 (WIDE) - 1 : 2.5 (TELE)
	Focusing Range	0.3 m (11-13/16 inches) - ∞
<b>DORI</b>	Detect (25ppm / 8ppf)	Wide: 24.5 m / 80.3 ft, Tele: 118.2 m / 387.7 ft
	Observe (62.5ppm / 19ppf)	Wide: 9.8 m / 32.1 ft, Tele: 47.3 m / 155.1 ft
	Recognize (125ppm / 38ppf)	Wide: 4.9 m / 16.1 ft, Tele: 23.6 m / 77.5 ft
	Identify (250ppm / 76ppf)	Wide: 2.4 m / 8.0 ft, Tele: 11.8 m / 38.8 ft
<b>Adjusting Angle</b>		Horizontal : -240 to +120°, Vertical : -30 to +85°, Yaw : ±100°
<b>GUI</b>	Camera Control	Brightness, AUX On / Off
	Audio	Mic (Line) Input : On / Off Volume adjustment : Low / Middle / High Audio Output : On / Off Volume adjustment : Low / Middle / High
	GUI / Setup Menu Language Browser <sup>4</sup>	English, Italian, French, German, Spanish, Portuguese, Russian, Chinese, Japanese Microsoft Edge, Firefox, Google Chrome
<b>Network</b>	Network IF	10Base-T / 100Base-TX, RJ45 connector
	Resolution	[16:9 mode (60 fps mode)] <sup>2</sup> , [16:9 mode (30 fps mode)], [16:9 mode (50 fps mode)] <sup>2</sup> , [16:9 mode (25 fps mode)] 1920x1080, 1280x720, 640x360, 320x180 [4:3 mode(30 fps mode)], [4:3 mode (25 fps mode)] 1280x960, VGA, QVGA [4:3 mode(15 fps mode)], [4:3 mode (12.5 fps mode)] 2048x1536 <sup>5</sup> , 1280x960, VGA, QVGA
	H.265/ H.264 <sup>6</sup>	Transmission Mode Transmission Type
	JPEG	Image Quality
	Smart Coding	

<b>Network</b>	Audio Compression	G.726 (ADPCM) : 16 kbps / 32 kbps G.711 : 64 kbps AAC-LC <sup>7</sup> : 64 kbps / 96 kbps / 128 kbps
	Audio transmission mode	Off / Mic (Line) input / Audio output / Interactive (Half duplex) / Interactive (Full duplex)
<b>Supported Protocol</b>	IPV6: TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, SMTP, DNS, NTP, SNMPv1/v2/v3, DHCPv6, RTP, MLD, ICMP, ARP, IEEE 802.1X, DiffServ	
	IPV4: TCP/IP, UDP/IP, HTTP, HTTPS, SSL/TLS, RTSP, RTP, RTP/RTCP, SMTP, DHCP, DNS, DDNS, NTP, SNMPv1/v2/v3, UPnP, IGMP, ICMP, ARP, IEEE 802.1X, DiffServ, SRTP	
No. of Simultaneous Users	Up to 14 users (Depends on network conditions)	
SDXC/SDHC/SD Memory Card (Option)	H.265 / H.264 recording :	Manual REC / Alarm REC (Pre/Post) / Schedule REC / Backup upon network failure
	JPEG recording :	Manual REC / Alarm REC (Pre/Post) / Backup upon network failure
Available SDXC/SDHC/SD Memory Card :	microSDXC memory card: 64 GB, 128 GB, 256 GB, 512 GB	
	microSDHC memory card: 4 GB, 8 GB, 16 GB, 32 GB	microSD memory card: 2 GB
Mobile Terminal Compatibility	iPad, iPhone, Android™ terminals	
ONVIF Profile	G / S / T	
<b>Alarm</b>	Alarm Source	3 terminals input, VMD alarm, Command alarm, Audio detection alarm
	Alarm Actions	SDXC/SDHC/SD memory recording, E-mail notification, HTTP alarm notification Indication on browser, Panasonic alarm protocol output
<b>Input/Output</b>	Monitor Output (for adjustment)	VBS : 1.0 V [p-p] / 75 Ω, composite, Pin jack An NTSC or PAL signal can be outputted from camera
	Audio input	ø3.5 mm stereo mini jack
	For microphone input :	Recommended applicable microphone : Plug-in power type (Sensitivity of microphone : -48 dB±3 dB (0 dB=1 V/Pa, 1 kHz)) Input impedance : Approx. 2 kΩ (unbalanced) Supply voltage : 2.5 V ±0.5 V
	For line input :	Input level : Approx. -10 dBV
Audio Output	ø3.5 mm stereo mini jack (monaural output) Output impedance : Approx. 600 Ω (unbalanced) Output level : -20 dBV	
External I/O Terminals	ALARM IN 1 (Alarm input 1/ Black & white input/ Auto time adjustment input) (x1) ALARM IN 2 (Alarm input 2/ ALARM OUT) (x1) ALARM IN 3 (Alarm input 3/ AUX OUT) (x1)	
<b>General</b>	Safety	UL (UL62368-1), c-UL (CSA C22.2 No.62368-1), CE, IEC62368-1
	EMC	FCC (Part15 ClassA), ICES-003 ClassA, EN55032 ClassB, EN55035
	Power Source and Power Consumption	DC power supply : DC12 V 720 mA, Approx. 8.6 W PoE (IEEE802.3at compliant) Device :DC48 V 180 mA, Approx. 8.7 W (Class 0 device)
	Ambient Operating Temperature	-10 °C to +50 °C (14 °F to 122 °F)
	Ambient Operating Humidity	10 to 90 % (no condensation)
	Dimensions	ø129.5 mm x 101 mm (H) (ø5-3/32 inches x 3-31/32 inches (H)) Dome radius 40 mm (1-9/16 inches)
	Mass (approx.)	470 g (1.04 lbs.)
Finish	Main body : ABS resin, i-PRO white / Dome cover : Acrylic resin, Clear	

- \*1 Converted value
- \*2 When 60 fps or 50 fps is selected, the Super Dynamic function is automatically set to off.
- \*3 When the 60 fps mode, 50 fps mode, 15 fps mode or 12.5 fps mode is used, the "90°" and "270°" settings are not available. When the 320x180 resolution is used, the "90°" and "270°" settings are not available.
- \*4 For information on the operation verification of the supported web browsers, refer to our support website <Control No.: C0132>.
- \*5 Used by super resolution techniques.
- \*6 Transmission for 4 streams can be individually set.
- \*7 When recording audio on a microSD memory card, only use AAC-LC (Advanced Audio Coding - Low Complexity).

# Appearance



Unit : mm (inches)

## AI Analytics applications

### AI Video Motion Detection (AI-VMD)

Advanced video analysis technology detects objects (faces, people, cars, motorcycles) in a specified area. (Intruder Detection, Loitering Detection, Direction Detection, Cross Line Detection)

### AI Privacy Guard

To protect privacy and portrait rights, it is possible to automatically apply a mosaic the entire face and figure of a person photographed by the camera.

### AI Face Detection

Detects faces with high precision even in low-light, backlit, and mask-wearing environments.

### AI People Detection












Extract the characteristics of human face / clothing and classify them into meaningful categories such as gender, age, and clothing color.

### AI Vehicle Detection

Extract vehicle characteristics and classify them into meaningful categories such as type and color.

## Optional Accessories

### Mount Bracket / Dome Cover / Other

<p>Ceiling Mount Bracket <b>WV-Q105A</b></p> 	<p>Ceiling Mount Bracket (Embedded) <b>WV-QEM100-W</b> (i-PRO white)</p> 	<p>Ceiling Mount Bracket <b>WV-QCL101-W</b> (i-PRO white)</p> 	<p>Mount Bracket <b>WV-QSR501-W</b> (i-PRO white)</p>  <p>(This bracket requires WV-QCL501-W or WV-QWL501-W.)</p>	<p>Ceiling Mount Bracket <b>WV-QCL501-W</b> (i-PRO white)</p>  <p>(This bracket requires WV-QSR501-W.)</p>	<p>Wall Mount Bracket <b>WV-QWL501-W</b> (i-PRO white)</p>  <p>(This bracket requires WV-QSR501-W.)</p>
<p>Wall Mount Bracket <b>WV-QWL500-W</b> (i-PRO white)</p> 	<p>Adapter Box <b>WV-QJB500-W</b> (i-PRO white)</p>  <p>(This bracket requires WV-QWL500-W.)</p>	<p>Pole Mount Bracket <b>WV-QPL500-W</b> (i-PRO white)</p>  <p>(This bracket requires WV-QWL501-W or WV-QWL500-W.)</p>	<p>Corner Mount Bracket <b>WV-QCN500-W</b> (i-PRO white)</p>  <p>(This bracket requires WV-QWL501-W or WV-QWL500-W.)</p>	<p>Dome Cover (Smoke type) <b>WV-CF5SA</b></p> 	

• Brackets are available in four colors, Fine silver, Light gray, Gray and i-PRO white. It is possible to use them in different color combinations.

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#### Important

- Safety Precautions : Carefully read the Basic Information, Installation Guide and Operating Instructions before using this product.
- Panasonic i-PRO Sensing Solutions Co., Ltd. cannot be held responsible for the performance of the network and/or other manufacturers' products used on the network.

• Masses and dimensions are approximate. • Specifications are subject to change without notice.

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