Technical Specifications

Full HD IR Bullet IP Camera

FOR INTERNAL/EXTERNAL APPLICATIONS

- Full HD 1080p 30fps
- H.264 and MJPEG compression
- True Day/Night and WDR
- 35m (115ft) viewing distance
- Remote zoom and focus
- Embedded VCA Technology Video Analytics
- microSD/SDHC memory card slot
- Power over Ethernet (IEEE 802.3af)

CAMERA

Model	IPN6702HD-6311Z IPN6702HD-6311Z-H
Image Sensor	SONY EXMOR 1/2.9" 1080p CMOS Motorized Focus & Zoom Lens
Effective Pixels	1920 x 1080
Scanning System	Progressive scanning
AGC Control	Auto
Auto IRIS (DC)	Supported
Minimum Illumination	Color: 0.5 Lux (50IRE) / 0.2 Lux (30IRE, Sens-up) B/W : 0 Lux (IR LED On)
Lens	2.8(w) – 12.0mm(t), F1.4(w) – F2.6(t), Optical 4x
Angle of View	Horizontal: Approx. 100°(Wide) to 35°(Tele) Vertical: Approx.54°(Wide) to 20°(Tele)
Shutter Time	1/10,000s to 1/2s
Day & Night	True Day & Night (Removable IR-cut filter)
Wide Dynamic Range	Digital WDR

IR ILLUMINATOR

IR LED	High Power IR LED x 16 (850nm)
IR working distance	Max. 35m
SMART IR	Supported (Automatically adjust the infrared light to the best, according to the brightness of the scene)

VIDEO

Video Compression		H.264 Baseline, Main, High profile(MPEG-4 Part 10/AVC), MJPEG(Motion JPEG)
Video Streaming		Dual Stream, Configurable streams in H.264, MJPEG H.264: Controllable frame rate, bandwidth(VBR/CBR) MJPEG: Controllable frame rate, JPEG quality
Resolutions	16:9 mode	1920 x 1080, 1280 x 720, 1120 x 630, 960 x 540, 800 x 450, 640 x 360, 480 x 270, 320 x 180
	4:3 mode	SXGA(1280x960), XGA(1024x768), SVGA(800x600), PAL(720x576), NTSC(720x480), VGA(640x480), QVGA(320x240)
Frame Rate		H.264: Max 30fps in all resolution MJPEG: Max 30fps in all resolution

Image Settings	Configurable brightness, contrast, saturation, sharpness
Orientation Control	Flip / Mirror / Corridor Mode(-90°, +90°)
Noise Filter	Supported (0 ~ 3)
Defogging	Supported
Smart Bitrate Control	Supported (It works in VBR mode)
Exposure Adjustment	+1.0, +0.6, +0.3, 0, -0.3, -0.6, -1.0 EV
White Balance	ATW1 / ATW2 / Push / Manual
Back Light Compensation	On(possible to designate zone) / Off
Flicker Control	Normal, 50Hz, 60Hz
DSS (Sens-up)	2X ~ 16X
Video Stabilization	Supported
Burnt-in Text	Time stamp and text caption overlay
Privacy Mask	4 configurable regions
Analogue Output	NTSC / PAL

AUDIO

Audio Streaming	-
Audio Compression	-
Audio input / output	-

NETWORK

Ethernet Standard	10 / 100 Base-T
IP	IPv4, IPv6
Protocol	QoS Layer 3 DiffServ, TCP/IP, UDP/IP, HTTP, HTTPS, FTP, RTSP, RTCP, RTP/UDP, RTP/TCP, mDNS, UPnP™, SMTP, DHCP, DNS, DynDNS, NTP, SNMPv1/v2c/v3(MIB-II), IGMP, ICMP, SSLv2/v3, TLSv1, SRTP, RTMP
Security	HTTPS(SSL), IP Filtering, Multi-level access with password protection
Users	Live viewing for up to 10 clients

INTEGRATION

Application Programming Interface	Software Development Kit(SDK) available

*Class4 or higher SD cards are recommended for HD recordings.

Technical Specifications

ONVIF Compliance	Profile S, Profile G
Event Sources	Sensor(DI); Alarm(DO); Video Motion Detection; Face Detection; Tamper Detection; Video Content Analytics(VCA); Network Loss/Detect; Network Setting Change; Time(Recurrence/Schedule); Storage Error
Event Actions	File upload: E-mail, FTP Notification: E-mail, FTP, HTTP, TCP Trigger-Alarm(DO) Recording Event Log Saving
Event Metadata Streaming (RTSP/RTP)	Video Motion Detection(MD); Video Content Analytics(VCA)

GENERAL	
Material	Aluminum Die-Casting; Ivory
External I/O Terminals	1x Alarm In, 1x Alarm Out
Language on webpage	Korean, English, Chinese
Power Source / Consumption	**IPN6702HD-6311Z:** DC12V, PoE / Max. 9W @ DC12V **IPN6702HD-6311Z-H:** DC12V, PoE / Max. 19W @ DC12V
Operating conditions	Humidity up to 85% RH (non-condensing) **IPN6702HD-6311Z** [DC12V/PoE] -20°C ~ 50°C (-4°F ~ 122°F) **IPN6702HD-6311Z-H** [DC12V] -40°C ~ 50°C (-40°F ~ 122°F) ; Built-in heater [PoE] -20°C ~ 50°C (-4°F ~ 122°F)
Lowest Temperature for Device's Start-up	**IPN6702HD-6311Z-H:** [DC12V/PoE] -10°C (14°F)
Approvals	FCC, CE, KC, IP66
Weight	**IPN6702HD-6311Z:** 870g (1.92lb) **IPN6702HD-6311Z-H:** 880g (1.94lb)
Dimensions (W x H x D)	86mm x 83.5mm x 280mm (3.4" x 3.3" x 11")

EDGE STORAGE	
Storage	1 x microSD memory card slot(SD/SDHC up to 32GB, card not included)*
Recording Types	Continuous Recording or Event Recording
Continuous Recording	Instant recording; Search & Download
Event Recording	Search of Event Logs; Playback; Download

VIDEO ANALYTICS	
Analytics Engine	VCA Technology's advanced tracking algorithm with rich library of detection behaviors
Detection Zones and Rules	40 zones (Multi-segment Polygons and Lines) in total 60 rules in total
Tamper Detection	Supported
Auto Tracking	-
VCA Preset	-

VIDEO ANALYTICS (Optional Features)	
Detection Behavior	Enter, Exit, Appear, Disappear, Stop, Direction, Dwell filter; Tailgating; Color Filter
Logical Rules	Extends standard rules to allow various combinations of the inputs
3D Behavior	Perspective Corrected Size and Speed Filters
Object Classification	Configured Max./Min. object sizes and Max./Min. speeds
People Tracking	Tracks individuals separately among overlapped multiple people
Counting Line	High accuracy people and vehicle counting
Counting	20 counters in total
Counter Report	Generates counter reports based on the counter database
Heatmap Report	Shows relative crowd density of the 24 hour period (criterion: midnight)
Meta Data	Plain XML Format

Dimensions

(Unit: mm)