

## **Technical Specifications**

# **STARVIS 5MP IR Bullet AI IP Camera**

FOR EXTERNAL APPLICATION

- 30fps at 5MP
- H.265, H.264 and MJPEG compression
- Embedded VCA Technology Video Analytics
- Deep Learning Object Tracker/People Tracker
- SMART Bitrate Control and Region of Interest
- Remote zoom and focus lens (Auto-focus)





CAMERA	
Model	IPAi65A05-MR
Image Sensor	SONY STARVIS EXMOR 1/2.8" 5M CMOS
Effective Pixels	2592(H) x 1944(V)
Scanning System	Progressive scanning
AGC Control	Auto
IRIS Type	P-IRIS
Minimum Illumination	Color: 0.08 Lux / B/W: 0 Lux (IR LED On)
Lens	2.7 – 13.5 mm, F1.4
Angle of View	Horizontal: Approx. 98.3 $^{\circ}$ (Wide) to 31.6 $^{\circ}$ (Tele)
Shutter Time	Auto / Manual: 1/30 ~ 1/32,000, Anti-Flicker, Slow Shutter (1/2,1/3,1/5,1/6,1/7.5,1/10)
Day & Night	True Day & Night (Removable IR-cut filter)
Wide Dynamic Range	True WDR
S/N Ratio	50 dB
IR ILLUMINATOR	
IR LED	6 x High Power LED
IR Working Distance	40 m
VIDEO	
VIDEO	
VIDEO Video Compression	H.265, H.264, MJPEG
Video Compression Profile	H.265, H.264, MJPEG H.264 : MP / HP H.265 : MP
Video Compression	H.264: MP/HP
Video Compression Profile Multiple Profile Streaming	H.264 : MP / HP H.265 : MP
Video Compression Profile Multiple Profile Streaming Performance	H.264: MP / HP H.265: MP 2592x1944/30 + 720p30 with H.264,H265 + MJPEG
Video Compression Profile Multiple Profile Streaming Performance Max Resolution	H.264: MP / HP H.265: MP 2592x1944/30 + 720p30 with H.264,H265 + MJPEG 2592 x 1944 100Kbps ~ 10Mbps
Video Compression Profile Multiple Profile Streaming Performance Max Resolution Video Bit Rate	H.264: MP / HP H.265: MP  2592x1944/30 + 720p30 with H.264,H265 + MJPEG  2592 x 1944  100Kbps ~ 10Mbps Multi-rate for Preview and Recording Multi Streaming CBR/VBR
Video Compression Profile Multiple Profile Streaming Performance Max Resolution Video Bit Rate Bitrate Control Digital Noise	H.264: MP / HP H.265: MP  2592x1944/30 + 720p30 with H.264,H265 + MJPEG  2592 x 1944  100Kbps ~ 10Mbps Multi-rate for Preview and Recording  Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)
Video Compression Profile Multiple Profile Streaming Performance Max Resolution Video Bit Rate Bitrate Control Digital Noise Reduction	H.264: MP / HP H.265: MP  2592x1944/30 + 720p30 with H.264,H265 + MJPEG  2592 x 1944  100Kbps ~ 10Mbps Multi-rate for Preview and Recording Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)  3D-DNR
Video Compression Profile Multiple Profile Streaming Performance Max Resolution Video Bit Rate Bitrate Control Digital Noise Reduction Privacy Mask	H.264: MP / HP H.265: MP  2592x1944/30 + 720p30 with H.264,H265 + MJPEG  2592 x 1944  100Kbps ~ 10Mbps Multi-rate for Preview and Recording Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)  3D-DNR  16 programmable zones
Video Compression Profile Multiple Profile Streaming Performance Max Resolution Video Bit Rate Bitrate Control Digital Noise Reduction Privacy Mask Special Features	H.264: MP / HP H.265: MP  2592x1944/30 + 720p30 with H.264,H265 + MJPEG  2592 x 1944  100Kbps ~ 10Mbps Multi-rate for Preview and Recording Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)  3D-DNR  16 programmable zones SMART Bitrate Control, Region of Interest
Video Compression Profile Multiple Profile Streaming Performance Max Resolution Video Bit Rate Bitrate Control Digital Noise Reduction Privacy Mask Special Features Other Image Processing	H.264: MP / HP H.265: MP  2592x1944/30 + 720p30 with H.264,H265 + MJPEG  2592 x 1944  100Kbps ~ 10Mbps Multi-rate for Preview and Recording Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)  3D-DNR  16 programmable zones SMART Bitrate Control, Region of Interest Configurable Exposure, White Balance, Sharpness

AUDIO	
Audio Streaming	Two way
Audio Compression	G.711 u-law 8KHz, AAC-LC 48Kbps at 8KHz
Audio input	Supply voltage : 3VDC(3mA), Input impedance : 3K Ohm
Audio output	Line Out, MAX. Output Level : 1Vrms
EVENT	
Event Trigger	Motion Alarm, Temperature critical, DI
Pre-Post Recording	Pre: 1~5 sec Post: 1~240 sec
<b>Event Notification</b>	FTP, E-mail, Alarm-out, SD card
NETWORK	
Ethernet Standard	10 /100Base-T
IP	IPv4
Protocol	TCP/IP, UDP, AutoIP, RTP(UDP/TCP), RTSP, NTP, HTTP, HTTPS, SSL, DNS, DDNS, DHCP, FTP, SMTP, ICMP, SNMPv1/v2/v3(MIB-2), ONVIF
Security	HTTPS(SSL), IP filtering, 802.1x, Digest Authentication
Plug In	ONVIF Profile S, CGI API
GENERAL	
Material	Aluminum Die-casting, White
External I/O Terminals	1 x Alarm In / 1 x Alarm Out
Language on webpage	English
Power Source	DC12V, PoE+(IEEE 802.3at Class 4)
Power Consumption	DC12V Max 13.2W, PoE Max 15.6W
Operating Conditions	Humidity 10 ~ 90% RH (non-condensing) [DC12V / PoE] -40°C ~ 50°C (-40°F ~ 122°F)
Cold Start	Supported
Approvals	FCC, CE, IP67, IK10
NDAA	Compliant
Weight	1.2 kg
Dimensions (D x H)	309.8mm x 96.7mm
EDGE STORAGE	
Storage	1x microSD / microSDHC / microSDXC (card not included)

#### **Technical Specifications**

### **VIDEO ANALYTICS**

#### **Features**

Analytics Engine VCA Technology's advanced tracking algorithm with rich library of detection behaviors

Detection Zones and Rules 40 rules & zones (Multisegment Polygons and Lines) as standard

Intrusion Detection Detection of the presence of an object

**Tamper Detection** Supported as standard

Detection Behavior Enter, Exit, Appear, Disappear, Stop, Direction, Dwell filter, Abandoned/Removed object filter, Tailgating, Color Filter

Logical Rules Extends standard rules to allow various combinations of the inputs

Deep Learning Object Tracking Deep learning based object identification (as Person, Cyclist, Car, Van, Truck, Motorcycle, Bicycle, Bag) removes false object detection

**Deep Learning People Tracking Deep learning** based people identification and tracking

Counting & Line High accuracy people and vehicle counting, 20 counters in total

Meta Data JSON format, Plain XML format that contains the event information and the tracked object information with the bounding box, tail history, object attributions (object type and color)











Filter









Filter



Counting





Object Color



Direction Filter



Logical Rules



Tailgating Filter



Metadata **DL** People Tracker



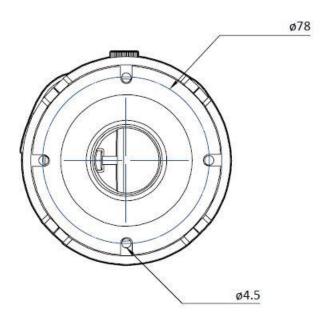
DL Object

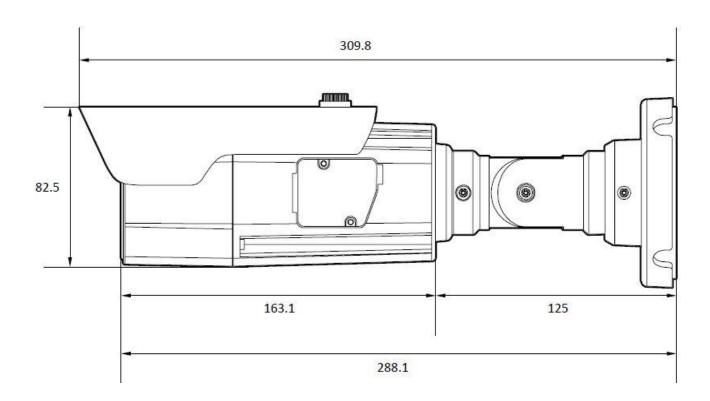
Tracker



# **Technical Specifications**

**Dimensions** (Unit: mm)







#### **Accessories**





BP01 BC001



BJC07