Technical Specifications

20MP IR Surround View AI IP Camera

FOR EXTERNAL APPLICATION

- 4 x 5MP(20MP), 30fps at 5MP per sensor
- H.265, H.264 and MJPEG compression
- Flexible positioning for four camera heads
- Easy position setting by a magnet
- Deep Learning Object Tracker/People Tracker
- One IP Address for four cameras



AUDIO



Model	IPAi97A20-MR
Image Sensor	4 x SONY STARVIS EXMOR 1/2.8" 5M CMOS
Effective Pixels	2592(H) x 1944(V) per camera
Scanning System	Progressive scanning
AGC Control	Auto
IRIS Type	Auto Exposure
Minimum Illumination	Color: 0.1 Lux / B/W : 0 Lux (IR LED On)
Lens	2.8 – 8 mm, F1.6
Angle of View	Horizontal: Approx. 93° (Wide) to 51° (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, 120 dB or above
S/N Ratio	50 dB
IR ILLUMINATOR	
IR LED	High Power IR LED x 16
IR Working Distance	30m
VIDEO	
Video Compression	H.265, H.264, MJPEG
Profile	H.264 : MP / HP H.265 : MP
Multiple Profile Streaming Performance	2592x1944/30 + 720p30 with H.264,H265 + MJPEG
Max Resolution	2592 x 1944
Video Bit Rate	100Kbps ~ 25Mbps Multi-rate for Preview and Recording
Bitrate Control	Multi Streaming CBR/VBR (Controllable frame rate and Bandwidth)
Digital Noise Reduction	3D-DNR
Privacy Mask	16 programmable zones
Special Features	SMART Bitrate Control, Region of Interest
Other Image Processing	Configurable Exposure, White Balance, Sharpness
Image Orientation	Flip / Mirror / Corridor Mode
Analogue Output	1 (Installation only) CVBS 1.0V p-p (75 Ω), 4:3 aspect ratio Camera selectable

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, VCA(AI)
Pre-Post Recording	Pre: 1~5 sec Post: 1~240 sec
Event Notification	FTP, E-mail, Alarm-out, SD card
NETWORK	
Ethernet Standard	10/100/1000Base-T(1Gbps)
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), UPNP, RTCP, SSH, ONVIF
Security	HTTPS(SSL), IP filtering, 802.1x, Digest Authentication
Plug In	ONVIF Profile S, CGI API
GENERAL	
Material	Aluminum Die-casting/Polycarbonate, White/Black
External I/O Terminals	1 x Alarm In / 1 x Alarm Out
Language on webpage	English
Power Source	DC12V, Ultra PoE(IEEE 802.3bt Class5)
Power Consumption	DC12V Max 37.2W, PoE Max 41.8W
Operating Conditions	Humidity 10 ~ 90% RH (non-condensing) [DC12V / PoE] -30°C ~ 50°C (-22°F ~ 122°F)
Approvals	FCC, CE, IP67, IK10
NDAA	Compliant
Weight	3.5 kg
Dimensions (D x H)	Ø280.5mm x 126.2mm
EDGE STORAGE	
Storage	4 x microSD / microSDHC / microSDXC (card not included)

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VIDEO ANALYTICS (Optional)

(4 channels)

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, Tailgating

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)









Disappear Filter







Filter



Counting





Object Color



Direction Filter



Tailgating Logical Rules Filter



Metadata

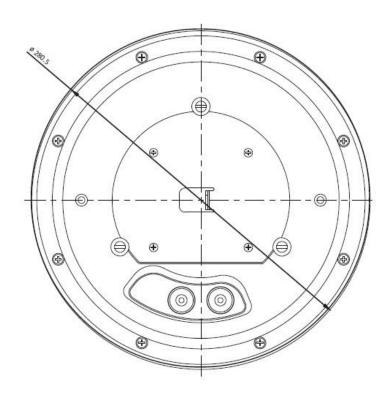
DL People Tracker

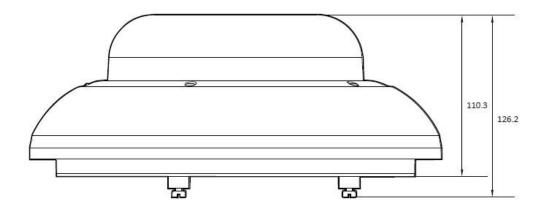




Technical Specifications

Dimensions (Unit: mm)

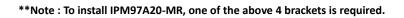






Accessories











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