



IP camera with GANZ AI analytics

**PixelPro AI**

Model	ZNPK-2B5M550DL-A
Sensor	1/2.8" CMOS --- IMX335 STARVIS
Sensitivity (AGC ON)	Color: 0.004lux (F2.0)   IR ON: 0lux
Day/Night Mode	IR-Cut automatic filter
Electronic Shutter.	1/4 - 1/10000 (Slow shutter - x2 / x4 / x8)
Iris	DC-Iris
WDR mode	True WDR > 120dB
Noise reduction	2D / 3D-DNR
Lens	Motor-zoom with AF 5 - 50mm (42.6° ~ 7.4°)
IR illuminator	range up to 80 meters
AV compression	H.265  H.264  MJPEG  VBR+  G.711U
Bitrate (CBR/VBR/VBR+)	Stream 1: 512 Kbps - 15 Mbit Stream 2 and 3: 512 Kbps - 8 Mbit
Resolution and framerate	2592x1944 (30fps) 2592x1520 and 1920x1080 (30fps).
Streaming	Stream 1: 2592x1944 (5MP) max. Stream 2 and 3: 1280x720 (VGA) max. Stream 4 (SVC): 1/2, 1/4, 1/8
Image settings	Rotation, saturation, brightness, contrast, sharpness
Digital functions	HLC  BLC  Auto-ROI   DEFOG  Anti-Flicker
Corridor mode	N/A
Privacy masks	4 zones
Events	Motion detection (4 zones) PixelPRO AI analytics
Network protocols	TCP, UDP, IPv4/6, HTTP/S, DHCP, FTP, SMTP, DNS, DDNS, NTP, RTP, RTSP, RTCP, Multicast IGMP, ICMP, ARP, SSL/TLS
RTSP support	RFC2326 standard (VLC Player / QuickTime).
Security	User authentication, hardware WatchDog
Compatibility	ONVIF, HTTP API
Ethernet	10/100 Base-T, RJ45
Audio	1 x EC (RCA - F)  1 x WY (RCA - F)
Alert	1 x EC  1 x WY
Analog output.	N/A

## ZNPK-2B5M550DL-A



### Special features:

- **AI (Artificial Intelligence) analytics** - artificial intelligence using *DeepLearning* algorithms to provide instant and precise detection and recognition of objects like person, vehicle.
- **VBR+** - dynamic video stream coding providing adaptive QoS configuration for optimal link utilization through reciprocal renegotiation of parameters. Provides up to 20-30% efficiency gains over VBR encoding while maintaining the same video quality.
- **Auto-ROI (Region of Interest)** - automatically designates areas of interest based on motion detection. The camera downgrades the image quality outside the ROI zones to reduce bandwidth consumption while maintaining maximum image quality in the ROI zones.
- Sending a "Keep-Alive" test signal (e.g., to a monitoring station) to confirm continued communication with the device.
- Possibility to install additional licenses for special analytical functions (including LPR, person fall detection, etc. ).
- For a single channel, only one type of detection can be active at the same time (for example, LPR or fall detection of a person, excludes detection of crossing a line or entering a protected zone).
- The cameras were designed in South Korea.
- **NDA A compliance** - the device complies with the US congressional act called the "National Defense Authorization Act."

### Functional capabilities of AI analytics

AI engine features (Artificial Intelligence)	Object detection - <i>DeepLearning</i> engine
	Classification: person, vehicle, bicycle ( <b>Detector</b> )
	Track multiple objects simultaneously ( <b>Tracker</b> )
Behavioral detection	Intrusion, staying, loitering, entering,
	exit, line cutting (directional), stopping
Alarm filtering	Exclusion (masking) zones, object size
Rules	Creating relationships between the conditions of jw.
IP notifications	ONVIF, HTTP, HTTPS, TCP, E-mail, FTP
<b>Other parameters</b>	
Reset button	Yes
SD card support	Micro SD slot max. 2TB
Power supply	12VDC  24VAC  PoE (802.3af / class-3)
Power consumption	10.5W (IR-LED OFF) / 11.2W (IR-LED ON)
Power output	12VDC (100mA)
Operating temperature	-30°C ... + 60°C
Max Humidity	90%
Certifications and classes	CE  FCC  IP67  IK10 (body)
Dimensions / weight	Ø 86 (body) x 270 mm / 1120g
Range of adjustment	180° (H) / 180° (V) / 350° (Rotation)

Adapters  
for attachment:



ZA8-JBMP-2  
( E holes )

ZA8-CBK627B  
only in combination  
with box ZA8-JBMP-2



ZA8-CBK627B

Compatibility:



PixelMASTER



DigiMASTER



CORTROL VMS



KronosNET

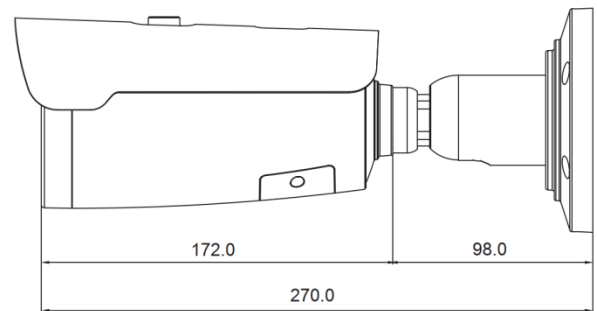


SAFESTAR

Table determining ranges for proper detection (object size)

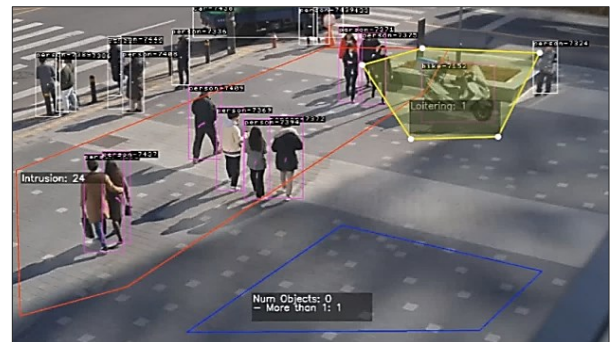
Object class	Person		Vehicle	
	Lat.	Height	Lat.	Height
Standard AI detection	2,00%	6,00%	7,00%	6,00%
Max. detection 5mm (42.6° H)	30 meters		30 meters	
Max. detection 50mm (7.4° H)	240 meters		240 meters	

External dimensions:



Examples of detecting Vehicle Groups in the Vehicle class:

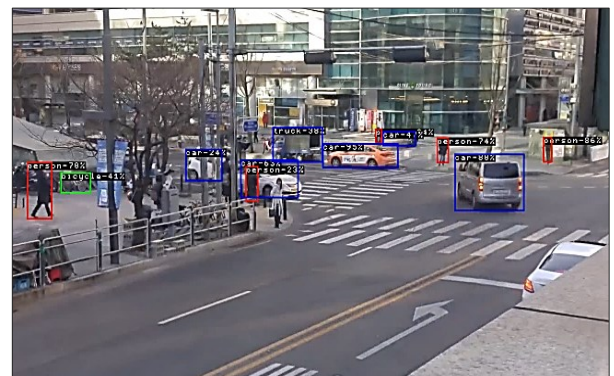
General vehicles detected:	Undetected Special Vehicles:
<ul style="list-style-type: none"> <li>Personal car</li> <li>Commercial vehicles (up to 3.5 tons)</li> <li>Buses, Autobus , Pickups</li> <li>TIR's (Tractor-trailer-trailers)</li> <li>Bicycles, Moto-bicycle and Motorbike</li> <li>Trucks with closed cargo holds (e.g., refrigerated trucks)</li> </ul>	<ul style="list-style-type: none"> <li>Excavators and similar equipment</li> <li>Lifts, forklifts, cranes, and derricks</li> <li>Dump trucks (open-bed trucks)</li> <li>Tractors, agricultural machinery, and trailer combinations</li> <li>ATVs and go-karts</li> </ul> <p>These types of vehicles often fall outside the typical training data for standard vehicle detection models, leading to potential misclassification or non-detection.</p>



Defining monitoring zones of any shape



Simultaneous tracking of multiple subjects in a high-motion frame



Precise recognition of objects at a long distance