



IP camera with GANZ AI analytics



ZNP-MB5F28D-A

Features:

- **AI analytics (Artificial Intelligence)** – *DeepLearning* algorithm provides instant and precise detection and classification of objects like person or vehicle.
- **VBR+** - dynamic video stream coding using QoS adaptation to optimize bandwidth utilization by 2-way renegotiation parameters between both network endpoints. Reduces network bandwidth by 20-30% comparing to standard VBR coding keeping same image quality.
- Sending test message „Keep-Alive” (ex. to Alarm Receiving Center) confirming that device is online.
- Option to install additional software licenses to enable special AI features like ANPR/LPR, behavior detection, safety monitoring etc.
- For one channel there can be enabled only one type of detection same time. For example when ANPR/LPR is enabled it excludes line crossing or intrusion detection.
- Device developed in South Korea.

Model	ZNP-MB5F28D-A
Sensor	1/2.8" CMOS --- IMX335 STARVIS
Sens. (AGC ON)	Color: 0.003lux @ F1.4 / IR ON: 0lux
Day/Night Mode	Auto IR-Cut
Electronic shutter	1/5 – 1/5000 (Slow shutter - x2 / x4 / x8)
Iris	F-Iris
WDR	True WDR > 120dB
Noise Reduction	2D / 3D-DNR
Lens	2.8mm (102°)
IR Illuminator	4 x IR LED, up to 30 meters
AV Compression	H.265 / H.264 / MJPEG / VBR+ / G.711U
Bitrate (CBR/VBR/VBR+)	Stream 1: 512 Kbps – 15 Mbit Stream 2 / 3: 512 Kbps – 8 Mbit
Resolution and framerate	2592x1944 (30 FPS) 2592x1520 i 1920x1080 (30 FPS)
Streaming	Stream 1: maks. 2592x1944 (5MP) Stream 2 / 3: maks. 640x480 (VGA) Stream 4 (SVC): 1/2, 1/4, 1/8
Image settings	Flip, Hue, Brightness, Contrast, Sharpness
Digital functions	HLC / BLC / Auto-ROI / DEFOG / Anty-Flicker
Corridor mode	N/A
Privacy mask	4 zones
Events	Motion Detection (4 zones), PixelPRO AI video analytics
Network protocols	TCP, UDP, IPv4/6, HTTP/S, DHCP, FTP, SMTP, DNS, DDNS, NTP, RTP, RTSP, RTCP, Multicast Unicast, uPNP, WS-Discovery, SSL, PPPoE
RTSP support	Standard RFC2326 (VLC Player / QuickTime)
Security	User authorization, Hardware WatchDog
Compatibility	ONVIF, HTTP API
Ethernet	10/100 Base-T, RJ45
Audio	N/A
Alarm	N/A
Analog video OUT	N/A

AI analytics details:	
Features of AI engines (Artificial Intelligence)	Object detection by <i>Deep Learning engine</i>
	Classification: person, vehicle, bicycle (Detector)
	Multi-Object tracking simultaneously (Tracker)
Detection features	Intrusion, Occupancy, Loiter/Dwell, Zone IN, Zone OUT, Line crossing (direction), Stopping
	Alarm filtering
Rules	Creating correlation between conditions and events
IP notifications	ONVIF, HTTP, HTTPS, TCP, E-mail, FTP
Reset button	Yes
SD card support	N/A
Power Input	12V DC / PoE (802.3af / class-3)
Power consumption	6W (IR-LED OFF) / 10W (IR-LED ON)
Power Output	N/A
Working Temperature	-30°C ~ +50°C
Max. Humidity	90%
Certificates and class	CE / FCC / IP66
Dimensions / weight	Ø 66 (housing) x 209 mm / 550g
Rotation	180° (H) / 180° (V) / 350° (Flip)

Mounting adapters:



ZA8-JBMP-2
(E hole)

ZA8-CBK627B
only
combined with
ZA8-JBMP-2



ZA8-CBK627B

Compatibility:



PixelMASTER



DigiMASTER



CORTROL VMS



KRONOS Next!

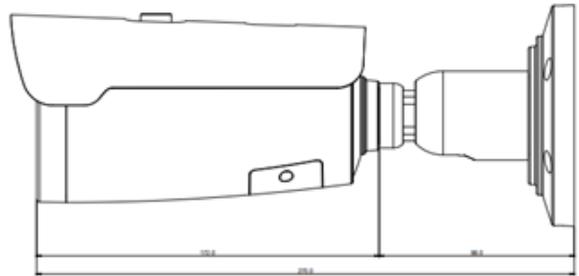


Safestar DMSI

Table showing detection distance (object size)

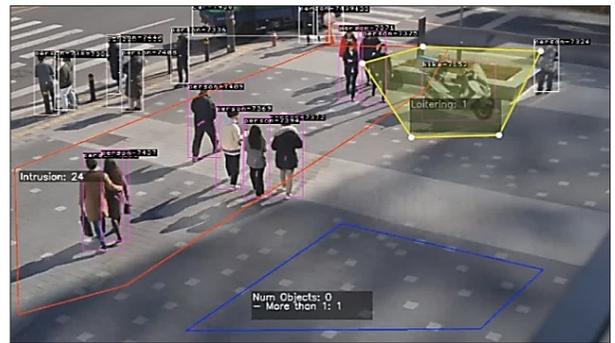
Object class	Person		Vehicle	
	Width	Height	Width	Height
Standard AI detection	2,00%	6,00%	7,00%	6,00%
Max. detection with 2.8mm (102° H)	20 meters		20 meters	

External dimensions:



Examples of vehicles groups possible to detects by AI as Vehicle class:

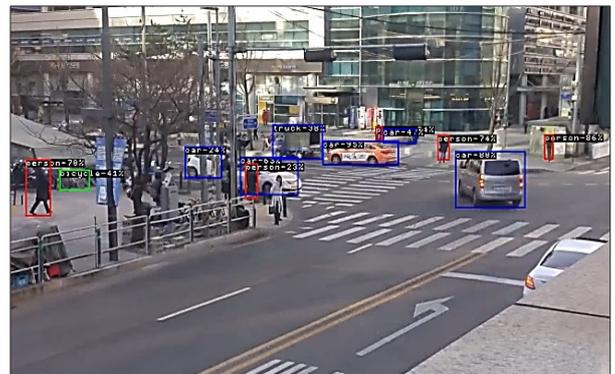
Detected vehicles:	Non-Detected vehicles
<ul style="list-style-type: none"> Personal car Lorry (up to 3,5 ton) Bus, Autobus , Pickup TIR'y (Truck with trailer) Bicycle, Moto-bicycle i Motorbike 	<ul style="list-style-type: none"> Digger and similar to it Forklift and similar to it Construction side vehicles Tractor and similar to it Quad and similar to it <p>Above vehicles cannot be detected by AI and classified as vehicle because of specific shape and textures which are very different from basic vehicle classes.</p>



Flexible zones definition is possible



Multi-object tracking and classification even with huge traffic



Precise object classification on long distance