



IP camera with video analytics and face/human/vehicle detection



Model	ZN8-53MB5F28NT-J4
Image Sensor	1/3" Progressive Scan CMOS, 5MP
Min. Illumination (AGC ON)	Color: 0.01lux @ F1.6 / B/W: 0 Lux with IR
Day/Night Mode	Automatic IR-Cut filter
Electronic Shutter	Auto/Manual, 1/5 to 1/20,000s
Iris	Fixed Iris
WDR Mode	DWDR
Noise Reduction	2D / 3D-DNR
Lens	2.8mm H: 96.3°, V: 52.1°
Illuminators	IR range up to 40 m, white light range up to 30 m
A/V Compression	H.265 H.264 MJPEG G.711U G.711A RAW
Bitrate (CBR/VBR)	Stream 1: 200 Kbps - 12 Mbit
	Stream 2: 100 Kbps - 6 Mbit
	Stream 3: 100Kbps - 3 Mbit
Resolution and Frame Rate	2880x1620, 2304x1296, 1920x1080, 1280x720 (25 fps)
	D1, VGA, CIF (25 fps)
	VGA, CIF, QVGA (25fps)
Image Settings	Rotation, saturation, brightness, contrast, sharpness
Digital Functions	HLC / BLC / ROI / DEFOG
Privacy Masks	4 zones
Motion Detection	22 x 18 grid
IVS Events	Intrusion detection, line crossing, double-line crossing, loitering, wrong-way direction, illegal parking, smart motion detection, people counting. Alarm triggering can be limited to specified target types (humans and vehicles)
Network Protocols	IPv4/IPv6, RTSP/ RTCP/RTP, TCP/UDP, UPnP
	HTTP/HTTPS, DHCP, DNS, DDNS, PPPoE
	ICMP, IGMP, FTP, NTP, SMTP, 802.1x, SNMP
RTSP Support	Standard RFC2326 (VLC Player / QuickTime)
Security	User authentication, hardware watchdog
Compatibility	ONVIF (Profile S/T/G/M), SDK, CGI
Ethernet Interface	10/100 Base-T, RJ45
Audio	N/A
Audio Compression	G.711 (64kb/s), 128Kbps (RAW_PCM)

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Key Features:

- **Smart Encode** - dynamically adaptive network stream and codec parameters to ensure recording continuity while minimizing storage requirements.
- Built-in IR and warm white light, smart illumination range up to 40 m
- **ROI (Region of Interest, up to 8 areas)** - based on user-defined ROI zones (areas of interest), the camera reduces image quality outside the zones to reduce bandwidth (bitrate), while maintaining maximum image quality within the ROI zones.
- Supports **face/human/vehicle detection**
- **SMART-IR** - the intensity of IR light emitted by the IR LEDs is automatically adjusted to prevent overexposure of objects (e.g. a person's face) near the camera.
- **DWDR** - digital wide dynamic range function.
- **Image sensor schedules** - image sensor operation can be configured according to time or Day/Night mode.
- **Compliance with NDAA** - device compliant with the U.S. Congress act known as the National Defense Authorization Act.
- **Built-in microphone** for audio communication.

Technical Specifications

Reset Button	Yes
SD Card Support	Slot Micro SD max. 1 TB
Microphone	Built-in microphone
Speaker	N/A
Power Supply	12 VDC (-15% to +25%)/PoE (802.3af)
Power Consump.	2.2W, maks. 7W (illuminators)
Max. Humidity	<90%
Certifications	CE / EN / FCC IP66
Dimensions/Weig.	179.1 × 68.36 × 68.36 mm / 0.58 kg
Temperature	-30°C ~ +60°C
Housing	Aluminum alloy

Security	
OS / Firmware Protection	Encrypted firmware, Secure Boot, signed firmware
User Authentication	Digest authentication, brute-force attack protection
Network Authentication	IEEE 802.1X (EAP-TLS)
Secure Communication	HTTPS, WSS (WebSocket Secure), SRTP
Access Control	IP-based access control, automatic logout
Data Protection	Credential encryption
Secure Data Storage	SD card partition encryption using AES-256 and a hardware Secure Element module
Audit	Access / system / event log management
Supply Chain Security	SBOM

Built-in GSTAR IVS 2.0 Video Analytics (AI Analytics)



AI Multi-Object



Intrusion



Smart Detection



Line Crossing



Double Line



Group Loitering



Wrong-way Direction



Illegal Parking



People Counting

DORI Distance						
Lens		Detection	Observation	Recognition	Identification	
2.8mm		82 m	32.8 m	16.4 m	7.2 m	
OODPCVS Distance (OODPCVS distances calculated based on pixel density thresholds according to IEC/EN 62676-4:2025.)						
General View	Object Outline	Object Discernment	Behavior Perception	Object Characterization	Verification	Detailed Analysis
102.5 m	51.3 m	25.6 m	16.4 m	8.2 m	4.1 m	1.4 m

Mounting Adapters:



ZA8-CBK656B



ZA8-CBK627B

Compatibility:



GENSTAR NVR



CORTROL VMS



NDA Compliance

Overall Dimensions:

