

ITS EXPRESS

A **HN** HARDENED NETWORKS BRAND



Advanced Imagers Series AIS-8300

The Advanced Imager series delivers a new generation of stunning low-light, night color camera performance for the ITS/Traffic and Law Enforcement industries. Advanced artificial intelligence engines, state-of-the-art low-light imagers, matched with Advanced AI vision processors and LiDAR focusing, deliver a new level of picture quality and artificial intelligence for 2024.

With these state-of-the-art advancements in one feature-rich camera, 8 MP ultra-high resolution for high end analytics, 1080p stream for video walls, and small stream for cellular. The Advanced Imager series processing power can deliver these streams simultaneously, in beautiful Night Color Mode, well beyond other competitors' capabilities.

- ▶ **Security:**
 - Secure Boot with Trustzone
 - Secure memory
 - TRNG, OTP, ARM TBSA compliance
 - Dram scrambling and virtualization
- ▶ **Applicable Software Analytics:**
 - People counting and tracking
 - Face detection, tracking, and recognition
 - Human, pet, & vehicle classifications
 - Object classifications & recognitions
 - License plate recognition
- ▶ **FL APL Approval Number:**
682-002-025

Advanced Artificial Intelligence

The camera boasts a cutting-edge 3rd Gen Engine Computer Vision Processor (CVFlow), integrating Convolutional Neural Network (CNN) and Deep Neural Network (DNN) technologies. Its advanced features include 3D Motion-compensated temporal filtering. The camera excels in low-light conditions with its superior Low Light Processing technology and employs intelligent H.264/H.265 encoder algorithms.

Solar Friendly

Model	AIS-8300	
Image Sensor		
Image Sensor	1 /1/8" low power cmos active square pixels	
Effective Pixels	3840 x 2160 8.4 mp 4k	
Pixel Size	2.0 μm (H) x 2.0 μm (V)	
Total Number of Pixels	3856 x 2200 8.48Mps	
Image Processor	3rd Gen. Computer Vision Engine CVflow CNN / DNN engine	
Sensitivity	15886 Difit/Lx/S	
Signal to Noise Ratio	50dB	
Lens		
Lens	Type	31x zoom lens, P-Iris, Auto-Iris, F1.35
	Focal Length	6.9-214.6 mm
	Horizontal FOV	61.7° (wide), 2.1° (tele)
	Vertical FOV	35.8° (wide), 1.2° (tele)
Focus	Manual and Auto via LiDar or Contrast	
Camera Features		
Frame Rate (Maximum)	H.265	HDR 8MP@30fps + 2M @30fps
	H.265	8MP @ 60 fps
	H.264	HDR 8MP@30fps + 2M @30fps
	H.264	8MP @ 60 fps
	MJPEG	2MP@30fps
Advanced AI Image Processing	<ul style="list-style-type: none"> -Advanced Night Color Mode -Superior Low-Light processing -Electronic image stabilization -Chromatic aberration correction 	
HDR Function	<ul style="list-style-type: none"> -Clear HDR -Multi-exposure -Line -interleaved HDR 	
Day & Night	Removable IR-cut filter	
Shutter Time	1 to 1/10K sec.	
HDR	Gen3 Engine	
EIS	Yes	
Digital Zoom	10x	
Image Settings	<ul style="list-style-type: none"> -Exposure -Brightness -Hue -White Balance -Text Overlay -Backlight Compensation 	<ul style="list-style-type: none"> -Sharpness -Contrast -Saturation -IR Threshold -Privacy Mask -Noise Reduction
Image Rotation	90°, 180°, 270° rotation	
Pan/ Tilt		
Pan/Tilt Range	Pan: 0 to 360° endless	Tilt: -20 to 100°
Manual Speed	Pan: 0.1 to 90°/s	Tilt: 0.1 to 55°/s
Preset Speed	Pan: 300°/s	Tilt: 300°/s
Preset	256	
PTZ Mode	8 tours, 8 pattern, & 4 auto pan	
Preset Return Accuracy	±0.16°/±0.18°	
Video Codec		
Compression	H.265/H.264/MJPEG	
Streaming	<ul style="list-style-type: none"> -Up to 4 individually configurable streams in H.265/H.264/MJPEG -Configurable resolution/frame rate/bandwidth LBR/VBR/CBR in H.265/H.264 	

NEMA Specifications	Meets NEMA TS2 requirements
Network	
Interface	10/100/1000Mbps ethernet
Security	-User authentication -HTTPS -IP Filter -IEEE 802.1x -OpenVPN
Supported Protocols	-ARP -UDP -TCP -IGMP -HTTP -PPoE -DHCP -RTSP -QoS -HTTPS -IPv4/v6 -UPnP -FTP -DDNS -RTP -ICMP -SNMP -NTP -SMTP
ONVIF	Profile S/G/T/M conformant
Intelligent Video Analytics	
Advanced Analytics	-Convolutional Neural Network (CNN) -Deep Neural Network (DNN) based processing
General Analytics	Motion & audio detection
DNN Analytics	-Facial Attributes -LPR Detection & Recognition -People Detection & Tracking -Human & Vehicle Classification -Object Classification & Recognition
General	
Casing	Aluminum and ABS
Power	IEEE802.3bt, Type 3, class 6, max 51 watt, AC24V, DC12V
Amphenol Cable 1 (Included)	-RJ45, waterproof connector -AC24V, waterproof connector -DC12V, unterminated wire -Alarm in x2, Alarm out x2, unterminated wire
IR Illumination Distance	100m
Storage	Support for microSD, microSDHC, microSDXC card & recording to Network Attached Storage
Operating Conditions	-40°C to 74°C Humidity 0 to 95% (non-condensing)
Storage Conditions	-45°C to 85°C
Approvals	-EMC: CE/FCC -Safety: RoHS, UL -Environment: IP66/IK10 ¹ -Others: NEMA TS2 (Section 2.2.7/2.2.8/2.2.9) -FL APL Approval # 682-002-025
Dimensions	Ø 241x338 mm with Sunshield
Weight	5.5kg
Wind Speed Rating	150 mph
Video Resolutions	-Maximum resolution: 8.3 MP 3840x2160 (4K) -Minimum resolution: 240 vertical lines
Warranty	-Three (3) years -Three (3) years from the date of acceptance when applicable

¹IK10 rating excluding glass window