

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 analytic engines and state-of-the-art low-light imagers, matched with advanced vision processors and LiDar focusing, deliver a new level of picture quality and artificial intelligence.

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 a 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:**
 - Abandoned Object
 - Intrusion Detection
 - Camera Sabotage
 - Wrong Direction
 - Loitering Detection
 - Object Counting
 - Object Removal
 - Stopped Vehicle
- ▶ **FL APL Approval Number:**
682-002-025

Advanced Analytics

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	
Gain	Automatic gain adjustable between 3dB and 48dB	
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 unicast/multicast 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 -PPoE -IPv4/v6 -ICMP	-UDP -DHCP -UPnP -SNMP	-TCP -RTSP -FTP -NTP	-IGMP -QoS -DDNS -SMTP	-HTTP -HTTPS -RTP
ONVIF	Profile S/G/T/M conformant				
NTCIP	UDP and TCP control via National Communications for ITS Protocol (NTCIP) 1205v1.08. SunGuide® compatible.				
Intelligent Video Analytics					
Advanced Analytics	-Convolutional Neural Network (CNN) -Deep Neural Network (DNN) based processing				
General Analytics	Motion & audio detection				
DNN Analytics	-Abandoned Object -Intrusion Detection -Camera Sabotage -Wrong Direction -Loitering Detection -Object Counting -Object Removal -Stopped Vehicle				
General					
Casing	Aluminum and ABS				
Power	IEEE802.3bt, Type 3, class 6, max 51 watt, AC24V, DC12V				
Amphenol Cable 1 (Included)	-IP67, waterproof connector -IP67, waterproof connector -IP67, waterproof connector -Alarm in x2, Alarm out x2, unterminated wire				
IR Illumination Distance	550m				
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	160 mph				
Video Resolutions	-Maximum resolution: 8.3 MP 3840x2160 (4K) -Minimum resolution: 240 vertical lines				
Warranty	-Five (5) years -Five (5) years from the date of acceptance when applicable				

¹IK10 rating excluding glass window