

# PIX-NDV501SMEI

5MP WDR IR Dome AI Network Camera



Pixvideo AI series products adopt the most advanced AI technologies, including deep learning algorithms that primarily target people and vehicles, which provides higher flexibility and accuracy for end-users. This enables the Pixvideo AI series to offer various advanced applications such as Face Recognition, ANPR, Metadata, People Counting, traffic data statistics, etc. The complete lineup of Pixvideo AI includes network (PTZ) cameras, network video recorders, servers, and platform management products. Beyond seeing the world, the power of AI allows devices to perceive the environment and understand the world in a better way.

## System Overview

Pro AI series contains Face Capture, Perimeter Protection and People Counting functions. Powered by deep-learning Artificial Intelligence algorithms, significantly improved accuracy. Meanwhile, the series features starlight and smart IR technology. This series fully protected from dust and water, certified to IP67 and vandal resistant to IK10 standard.

## Functions

### Face Capture

Face capture is a software application that automatically captures faces from within a digital image or a video frame from a video source. cameras use advanced deep learning algorithms and are trained by a large number of face data sources, enabling the camera to locate faces quickly and accurately from the video source and capture facial images.

### Face Attributes

Through the use of deep learning algorithms to analyze facial images, cameras can extract six facial attributes from each frame, including Age, Gender, Expression (Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses, Mouth Mask, Moustache & Beard. Customers can acquire data of interest via face attributes statistics.

### Perimeter Protection

Pixvideo's Perimeter Protection functions significantly improved accuracy. Perimeter Protection reduces false alarms and decreases pixel count requirements for object detection. Perimeter Protection features custom tripwires based on object type for automation in limited access areas such as pedestrian or vehicle-only zones. This combination of advanced AI analytics and real-time alerts to a desktop or to a mobile

- 1/2.7" 5Megapixel progressive scan CMOS
- H.265&H.264 triple-stream encoding
- 20fps@2592×1944
- WDR(120dB), Day/Night(ICR), 3D DNR, AWB, AGC, BLC
- Multiple network monitoring: Web viewer, CMS(DSS/PSS) & DMSS
- 2.7mm ~13.5mm motorized lens
- 1/1 Alarm in/out, 1/1 audio in/out
- Max. IR LEDs Length 40m
- Micro SD memory, IP67, IK10



client reduces system requirements and resources resulting in greater surveillance system efficiency.

### People Counting

People Counting function uses advanced image processing technology to capture depth information from within images. The camera pairs this information with deep learning algorithms to analyze and detect human bodies and track target objects in real time. The camera provides statistics for separate individuals' entrance and exit with up to 95% counting accuracy.

### Metadata

Metadata is feature attribute information extracted from a target object which can be used for data retrieval. Pixvideo face detection camera can extract six facial attributes and output the metadata for analysis.

### ePoE technology

The ePoE technology of Pixvideo, designed internally, adopts advanced 2D-PAM3 coding modulation from physical layer, and realizes full duplex transmission over 800 meters at the speed of 10Mbps, or 300 meters at the speed of 100Mbps via Cat 5 or coaxial cable media. Besides, it supports PoE and PoC power supply technology which has greatly simplified construction and wiring. Pixvideo ePoE technology offer a new way to accomplish long distance transmission between IP camera and network switch. It allows more flexible surveillance system design, improves reliability and saves construction and wiring cost.

### Protection(IP67, IK10, wide voltage)

The camera allows for  $\pm 30\%$  input voltage tolerance, suitable for the most unstable conditions for outdoor applications. Its 6KV lightning rating provides effective protection for both the camera and its structure against lightning. Subjected and certified to rigorous dust and immersion tests (IP67) and impact tests (IK10), the camera is the choice for installation in even the most unforgiving environments.



Technical Specification					
Camera					
Image Sensor		1/2.7” 5Megapixel progressive scan CMOS			
Effective Pixels		2592(H) x 1944(V)			
RAM/ROM		1GB/128MB			
Scanning System		Progressive			
Electronic Shutter Speed		Auto/Manual, 1/3~1/100000s			
Minimum Illumination		0.01Lux/F1.5 ( Color,1/3s,30IRE) 0.09Lux/F1.5 ( Color,1/30s,30IRE) 0Lux/F1.5 (IR on)			
IR Distance		Distance up to 40m (131ft)			
IR On/Off Control		Auto/ Manual			
IR LEDs		3			
Lens					
Lens Type		Motorized			
Mount Type		Board-in			
Focal Length		2.7mm~13.5mm			
Max. Aperture		F1.5			
Angle of View		H: 100°~28°, V:72°~21°(2592×1944) H: 104°~29°, V:55°~16°(2688×1520)			
Optical Zoom		5x			
Aperture Type		Auto			
Close Focus Distance		0.8m(2.62ft)			
DORI Distance	Lens	Detect	Observe	Recognize	Identify
	W	64m(210ft)	26m(85ft)	13m(43ft)	6m(20ft)
	T	212m(696ft)	85m(279ft)	42m(138ft)	21m(69ft)
Pan/Tilt/Rotation					
Pan/Tilt/Rotation Range		Pan:0°~355°; Tilt:0°~65°; Rotation:0°~355°			
Artificial Intelligence					
Face Capture		Support face image capture			
Face Attributes		Support 6 kinds of face attributes extraction: Age, Gender,Expression(Jolly/Surprise/Normal/Rage/Sad/Disgusted/Confused/Frightened), Glasses,Mouth Mask, Moustache & Beard			
Perimeter Protection		Tripwire, Intrusion(Human & Vehicle classification)			
People Counting		Line crossing people counting, Region people counting			
General Intelligence					
Event Trigger		Motion detection, Video tampering , Scene changing, Network disconnection , IP address conflict, Illegal Access,Storage anomaly			
General Intelligence		Object Abandoned/Missing			
Video					
Compression		H.265+/H.265/H.264+/H.264/H.264B/H.264H/MJPEG(sub stream)			
Streaming Capability		3 Streams			

Resolution	2592×1944/2688×1520/2304×1296/1080P(1920×1080)/1.3M(1280×960)/720P(1280×720)/D1(704×576/704×480)/VGA(640×480)/CIF(352×288/352×240)
Frame Rate	Main Stream: 2592×1944(1~20fps) Sub Stream: D1(1~20/30fps) Third Stream: 1080P(1~13fps)
Bit Rate Control	CBR/VBR
Bit Rate	H.264: 32~ 8192Kbps H.265: 19~ 8192Kbps
Day/Night	Auto(ICR) / Color / B/W
BLC Mode	BLC / HLC / WDR(120dB)
White Balance	Auto/Natural/Street Lamp/Outdoor/Manual
Gain Control	Auto/Manual
Noise Reduction	3D DNR
Motion Detetion	Off / On (4 Zone, Rectangle)
Region of Interest	Off / On (4 Zone)
Electronic Image Stabilization (EIS)	Support
Smart IR	Support
Defog	Support
Digital Zoom	N/A
Flip	0°/90°/180°/270°
Mirror	Off / On
Privacy Masking	Off / On (4 Area, Rectangle)
Audio	
Compression	G.711a/ G.711Mu/ AAC/ G.726/G.723
Network	
Ethernet	RJ-45 (10/100Base-T)
Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP;SMTP; FTP; DHCP; DNS; DDNS; PPPoE; IPv4/v6; SNMP;QoS; UPnP;NTP
Interoperability	ONVIF(Profile S/Profile G), CGI,Milestone,Genetec,P2P
Streaming Method	Unicast / Multicast
Max. User Access	20 Users
Edge Storage	NAS FTP Mirco SD card 256GB
Web Viewer	IE(versions newer than IE8), Chrome, Firefox, Safari(versions newer than Safari 12)
Management Software	Smart PSS, DSS, P2P
Smart Phone	iOS, Android
Certifications	
Certifications	CE-LVD:EN60950-1 CE-EMC:Electromagnetic Compatibility Directive 2014/30/EU FCC:47 CFR FCC Part 15, Subpart B UL/CUL: UL60950-1 CAN/CSA C22.2 No.60950-1-07

Interface

Video Interface	1 Port(For adjustment only)
Audio Interface	1/1 channel In/Out
RS485	N/A
Alarm	1 channel In: 5mA 5VDC 1 channel Out: 300mA 12VDC

Electrical

Power Supply	DC12V(±30%), AC24V(±30%), PoE(802.3af)(Class 0)
Power Consumption	DC12V:4.9W 12.4W(IIR on) AC24V: 5.1W 11.9W(IIR on) PoE:5.2W 11.6W(IIR on)

Environmental

Operating Conditions	-30° C ~ +60° C (-22° F ~ +140° F) / 10%RH~95% RH
Storage Conditions	+5° C ~ +40° C (+41° F ~ +104° F) (daily temperature difference within 15° C/59° F ) / 10%RH~95% RH
Ingress Protection	IP67
Vandal Resistance	IK10

Construction

Casing	Metal,plastic
Dimensions	Φ159mm×117.9mm (6.26"×4.64")
Net Weight	0.95kg (2.09lb)
Gross Weight	1.20kg (2.65lb)

Ordering Information

Type	Part Number	Description
Accessories (optional)	ACM208	Junction Box
	ACM230	Wall mount
	ACM211	Ceiling mount
	ACM262	Pole mount
	ACM222	Mount adapter
	ACM224	In-ceiling mount

Accessories

Optional:

