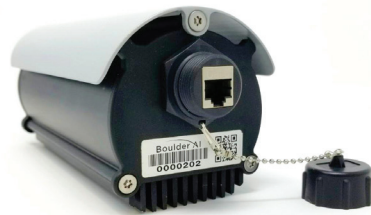![sighthound logo]

DNN Cam™

See what makes our DNN Cam™ AI camera revolutionary – the story is in the numbers.

The Deep Neural Network Camera, or DNN Cam is a system capable of replacing tedious, dangerous and subjective visual tasks such as counting, sorting, and observational reporting. In short, it is artificial intelligence in a can.

This powerful device is an ultra power efficient, supercomputing camera with special functions designed for extremely rugged environments. It contains all necessary elements to sample enormous high resolution scenes, reduce the data through deep learning (Caffe, Tensorflow, CuDNN), and store or transmit highly reduced, contextual information.
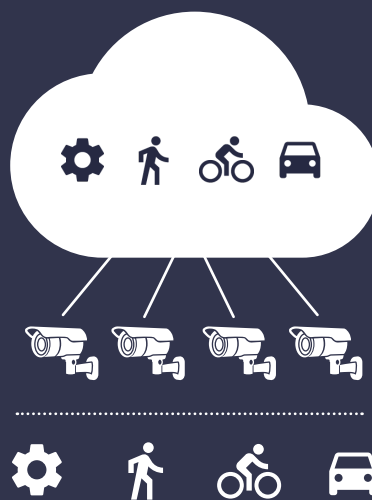

MADE IN USA
AMERICAN PRODUCT

Features

Onboard computer: Operates in a serverless environment.

Camera: 4k, 12-bit HDR, 60FPS Sony StarVis image sensor.

Lens: Motorized variable focus, zoom, iris, and IR filter. Low distortion, 4k resolution.

Ruggedized design: IP67-rated chassis suitable for a variety of environments.

Built for the Boulder AI Ecosystem

Cloud Platform Enabled

• Remote device management & updates
• Remote service management & config
• Centralized data dashboards & reports
• User management & permissions

Edge Software Enabled

• OTA service & firmware updates
• Edge UI onsite image, video, network configuration dashboards & reports
• User management & permissions

DNN Cam™ Specifications

Dimensions

GENERAL	
Lens Field of View	Horizontal: 83 to 33 deg, Vertical: 60 to 25 deg, Diagonal: 106 to 42 deg
Image Sensor	Sony STARVIS IMX 334 8.3 MP Imaging Sensor
Lens	Theia TL410p motorized varifocal 4K Lens
F-Number	F/1.4 @ 4 mm - F/2.4 @ 10 mm to close
Focal Length	4-10 mm
Horizontal Viewing Angle	83 to 33 degrees
Minimum Illumination	Features a sensitivity of 2000mv or more per 1um^2 (color product when imaging with a 706 cd/m^2 light source, F5.6 in a 1s accumulation equivilent)
Max Frame Rate	240 FPS @ 1280x540, 60 FPS @ 3840x2160
White Balance Mode	Auto, Sun, Clouds, Incandescent, Flourescent, 5000k, 3500k
Privacy	Hardware enforced privacy regions, GDPR compliant
Web Browser Compatibility	Chrome, Firefox, and Microsoft Edge Browsers supported

PROCESSOR	
GPU	256 cores
Compute Performance	1.33 teraflops
CPU	Dual-Core 1.5 64-Bit CPU and Quad-Core ARM
Memory	8 GB 128-bit LPDDR4 1600MHz

VIDEO	
Video Stream 1 Codec	H.264 and H.265 (HEVC) Supported
Video Stream 1 Image Resolution	4K, 1080p, 720p
Image Control	Noise Reduction, Gain control, Exposure Range, IR Cut Filter, Iris Control, Auto White Balance, Auto Exposure, Autofocus
Bit Rate Control	Supported (1 Mbps to 16 Mbps)

NETWORK	
Protocols	IPv4, IPv6, TCP, UDP, ARP, HTTP, HTTPS, DHCP, DNS,NTP, RTP/RTCP, RTSP
Streaming Protocols	Unicast (RTSP with configurable port + handle); Multicast (RTSP with configurable port and address ranges)
Authentication / Security	TLS Encrypted communication by default
ONVIF Profile(s)	ONVIF Profile S

PERIPHERALS	
Storage	NVMe SSD 1,2 and 4TB, BAI Cloud
SD Card	UHS Speed Class 1 or 3 Supported up to 30 MB/s (ships with 32GB card)
Audio	N/A

ELECTRICAL	
Ports	PoE+ Female Ethernet Port
Network Cable Type / Speed	Cat 5e or greater required @ 1000Mb/s
Power Input	PoE+ (IEEE 802.3at)
Power Consumption (Max)	25.5 W sustained, 30 W peak

MECHANICAL	
Camera Mount	2x 1/4-20 2" space bottom mount
Weight	2.43 lbs, 1.102 kg
Dimensions (L x W x H)	9.5"x3"x3.5"
Housing Material	Aluminum

ENVIRONMENTAL	
Operating Temperature Range	NEMA TS2 which is -34°C to +74°C (=29.2F to 165.2F)
Operating Humidity	18 to 95% humidity over the range
Ingress Protection	IP67
Shock/Vibration	Ability to withstand 0.5g @ 5 to 30Hz vibration, and 10g's of shock

CERTIFICATIONS	
	FCC, NEMA, IP67, RoHS, CE

OPTIONS	
NVMe M.2 Storage	Non-Volatile Memory Express (NVMe) SSD storage: 1TB, 2TB, or 4TB
SD Card Storage	UHS-1 16GB to 512GB SD Card
WiFi/Bluetooth Module	BAI PCB module that provides WiFi and Bluetooth capability onboard the DNN Cam
GPS/IMU Module	GPS - 20Hz Global position 3m; IMU - Inertial measurement unit for anti tampering
4G Module	Sierra Wireless 4G LTE modem with SIM / eSIM