Stellarview



SV-ANPR-RC-1
Recon Global Shutter Camera
World's First Edge Gen AI Powered ITS Camera

AI-Powered Recognition Capabilities

Number Plate Recognition


HSRP Plate


Non-HSRP Plate


Bharat Series


Green (EV)


Yellow (Commercial)


White (Private)


Hand Painted


Double Line Plate

Vehicle Type Detection


2W


3W


4W


Bus


Truck


Mini LCV


LCV


Goods Auto


Tractor

Traffic Violation Detection


Over Speeding (Vision & Radar)


No Seatbelt (Driver & Passenger)


No Helmet (Pillion & Rider)


Triple Seat Riding


Wrong Direction


Mobile Phone Use


Lane Discipline Violation


Not allowed Vehicles

Certifications & Compliance



Certified



R-93048577



NATRAX certified upto 230 kmph



NHAI 2023 Policy Compliant



ONVIF Compliant

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Camera & Imaging

Model No.	SV-ANPR-RC-1
Resolution	2 MP
Sensor Type	Full HD 1/2.6" CMOS Global Shutter Sensor, Colour Output
Frame Rate	Up to 60 FPS
Shutter Speed	1/50 sec to 1/100000 sec
SNR (Signal-to-Noise Ratio)	66 dB
WDR/HLC/BLC	Supported
AEB (Automatic Exposure Bracketing)	Supported
Night Visibility	NightColor Technology – Colour imaging in low-light conditions

Lens & Optics

Lens Type	Fixed focal length, IR corrected
Available Focal Lengths	12mm / 20mm / 25mm / 35mm
Focus	Manual focus (preset at factory)

IR & Illumination

In-Built IR Range	Up to 40 meters
IR Pulse Control	Supported
IR LED Type	IR LEDs (850nm)

Processing Hardware

CPU	8-core Arm Cortex-A78AE v8.2 64-bit
GPU	1024 CUDA cores (NVIDIA® Ampere architecture)

AI Performance

AI Performance	Up to 157 TOPS
AI Inference Latency	~40 milliseconds

Lists, Alerts & Viewing

Whitelist / Blacklist	Supported
Live View	Yes

Networking & Security

IP Addressing	DHCP or Static; custom subnet (CIDR / dotted-decimal), configurable gateway & DNS
DoS Protection	SYN flood and ICMP flood attack defense
Audit Logging	Full audit trail of system and user activity

Detection Capabilities

Number Plate Detection	HSRP, Non-HSRP, Bharat Series, Green, Red, Hand-painted plates, single-line, double-line, and triple-line plates
Vehicle Type Detection	Car, Bike, Auto Rickshaw, Bus, LCV, LGV, Mini LCV, Truck, Goods Auto, Tractor
Plate Type Detection	Private, Commercial, Electric, Unknown
Color Detection	White, Black, Yellow, Blue, Green, Red, Silver/Grey, Brown
Make Detection	Supports 35+ Indian & global brands, including Maruti Suzuki, Tata, Mahindra, Hyundai, Toyota, Honda, Kia, Renault, Nissan, Volkswagen, Skoda, MG, BMW, Mercedes-Benz, Audi, Jaguar Land Rover, Volvo, Ford, Fiat, Chevrolet, Peugeot, Subaru, Mazda, Mitsubishi, Porsche, Bentley, Lexus, Jeep, Chrysler, Citroën, Tesla, Ferrari, Lamborghini, Bugatti, Rolls-Royce, Alfa Romeo, Aston Martin, Maserati, Datsun

Traffic & Enforcement

Violation Detection	Over-speeding (Vision & Radar), No Helmet Rider, No Helmet Pillion, No Seat Belt Driver, No Seatbelt Passenger, Triple Riding, Not Allowed Vehicles, Wrong Direction, Mobile Phone Use, Lane Discipline Violation
Detection Speed	Up to 230 km/h
Detection Range	Up to 50 meters
Lane Coverage	Single Lane
AI Search (VLM based dynamic real time natural language search)	Yes (Optional Add-on)
API integration	Yes

Video & Streaming

Video Streams	Primary: 2 streams, Secondary: 3 streams
Stream Encoding	H.264 / H.265
Bitrate Control	Adjustable
RTSP and RTSPS Support	Yes
Configurable On-Screen Display	Supported

Storage

Local Storage	NVMe Local Storage – 512 GB Usable 200 GB
Cloud Storage Support	Yes

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Integrations	
ONVIF	Supported (Profile T, S, M and G)
SNMP	Supported (v1, v2 and v3)
API Integration	Supported
Radar Support	2D and 4D supported via TCP and UDP protocols
Vision-Based Speed	Supported
Speed Display	Dynamic speed numbers and colours
Email / SMTP	Event delivery with TLS / SSL encryption
Webhook	Push events to external endpoint (optional frame / plate attach, custom headers)
TCP Socket	Raw TCP event streaming, per-camera endpoint

Power Specifications	
Rated Input Voltage	12V DC, 4A
Suggested Power Supply Rating	12V DC, 100 Watts

Hardware & Build	
Cooling Fan	IP68 Weatherproof 12v cooling fan
Camera Casing	Outdoor, industrial-grade ANPR camera housing

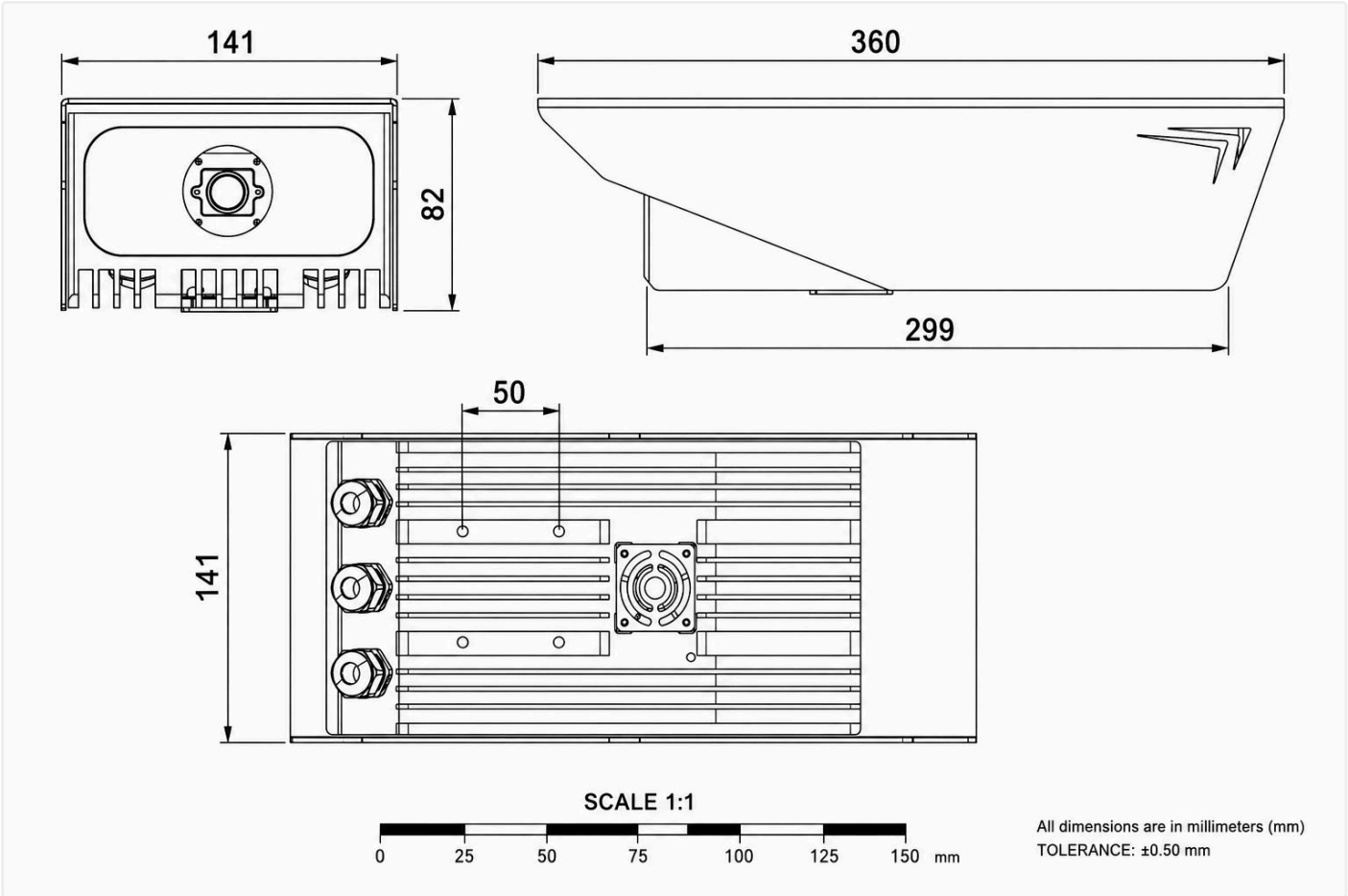
Events & Evidence	
Evidence Video	Pre-/post-event clip buffering (configurable seconds before & after each event)
Secondary Evidence Camera	Additional snapshot from secondary RTSP source per event
Event Deduplication	One event per vehicle pass
Image Compression	Configurable JPEG quality (1–100)

System Health & Monitoring	
Live Metrics	CPU, GPU, memory, storage & temperature (per-core CPU load, RAM/swap)
SSD Health Telemetry	NVMe wear, TBW, endurance estimate, thermal & unsafe-shutdown tracking
History Window	Selectable 1h / 6h / 24h / 7d

Environmental	
Ingress Protection	IP66, IK10
Operating Temperature	–10°C to +55°

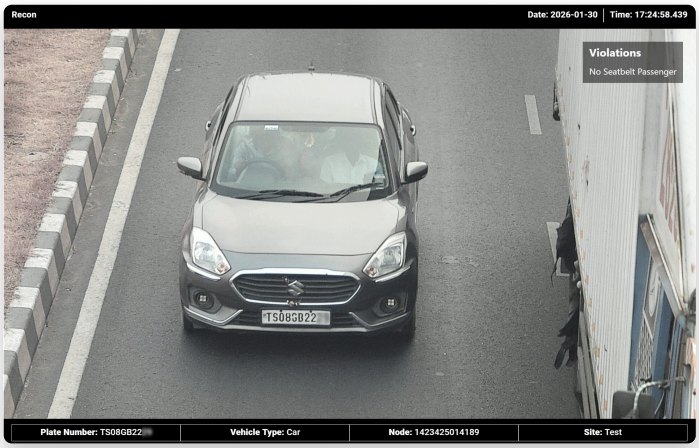
Camera Dimensions (mm)	
With Sun shade	360Lx141Wx82H
Without Sun shade	280Lx130Wx149H

Camera Dimensions



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Day performance



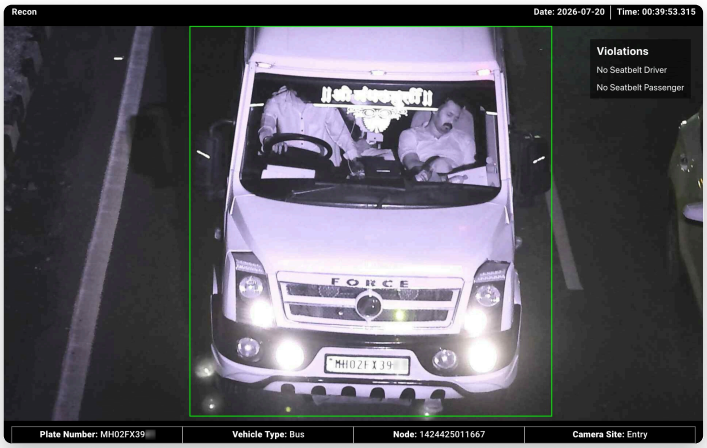


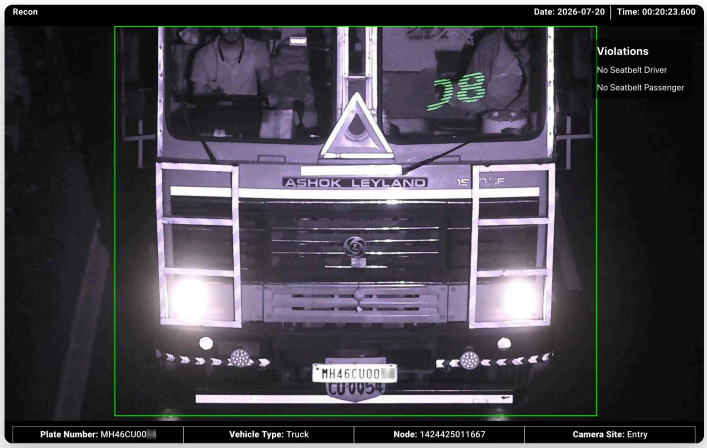




Night performance

Our Global Shutter can be integrated with external strobe/pulse infrared illuminators for superior night performance. Pulse illuminators are different accessory and sold separately.









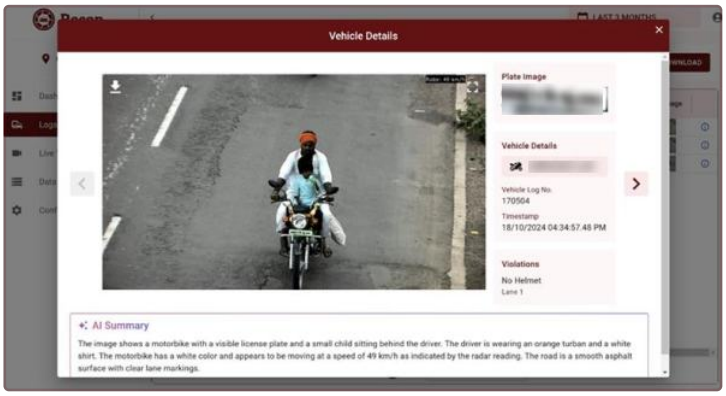
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What is AI Search?

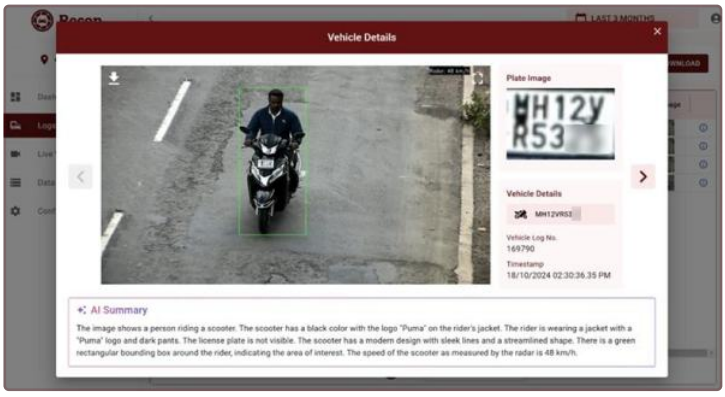
The AI Search Feature is an advanced search tool built on computer vision and scene understanding, empowering authorities to retrieve key visual insights from massive image datasets using simple keywords.
Whether it's a "**man in orange turban**" or the text "**Ganesh**" on a passing vehicle, AI Search feature on our Recon dashboard finds it instantly.

Key Features

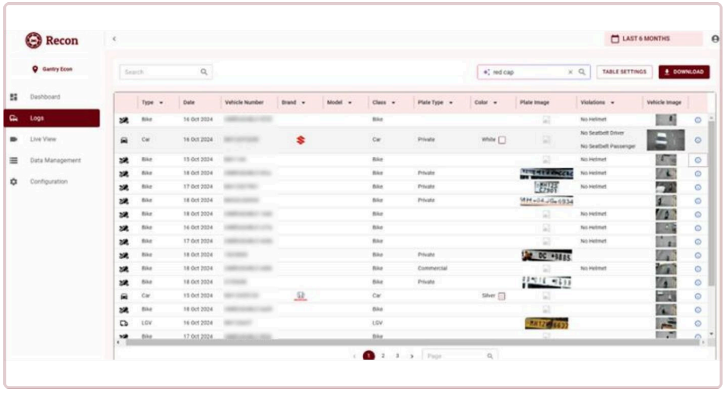
✓ **Attribute-Based Search**
Find people or vehicles using appearance cues like "yellow face emoji," "red cap," or "orange turban."



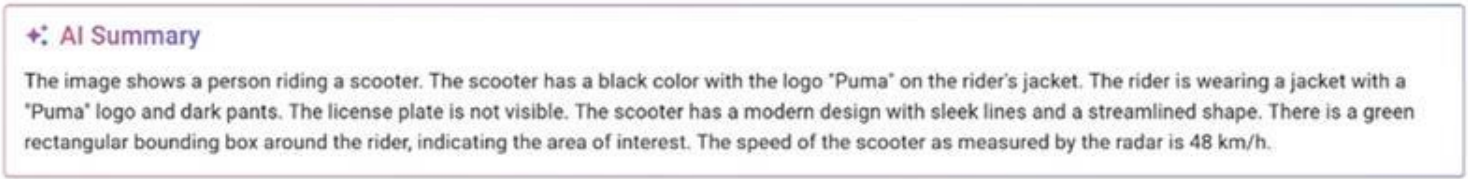
✓ **Text & Logo Recognition**
Identify printed words or brand logos on vehicles and signs (e.g., "PUMA" or "Autobahn Trucking").



✓ **Real-Time Results**
Instantaneous and continuously updating search outcomes from incoming data feeds.



✓ **AI Summarization**
Every match comes with an auto-generated contextual summary to accelerate understanding.



Stellarview

Transforming Traffic Intelligence
with AI-Powered Mobility Solutions

Stellarview is an Indian edge-AI company that designs and manufactures vision-based hardware for traffic and infrastructure. Our products include ANPR cameras, traffic enforcement systems, and edge compute platforms, all built in-house and engineered for Indian roads, highways, and toll plazas.

We bring AI to the edge, running number-plate recognition, vehicle analytics, and violation detection directly on the device in real time. As a Make-in-India manufacturer, our products meet national standards including STQC, NATRAX, and NHAI compliance, making them ready for large-scale government and infrastructure deployments.

Our goal is simple: build dependable, intelligent systems that make roads safer and mobility smarter.

Contact

+91 86570 19349

www.stellarview.ai

sales@stellarview.ai

Address

Corporate Office:
501-502, The Clover Metropole,
NIBM Road, Pune, INDIA 411048

Operations Office:
204, 2nd Floor, Springs Plaza,
NIBM Road, Pune, INDIA 411048

