VTK
Safe and timely traffic monitoring
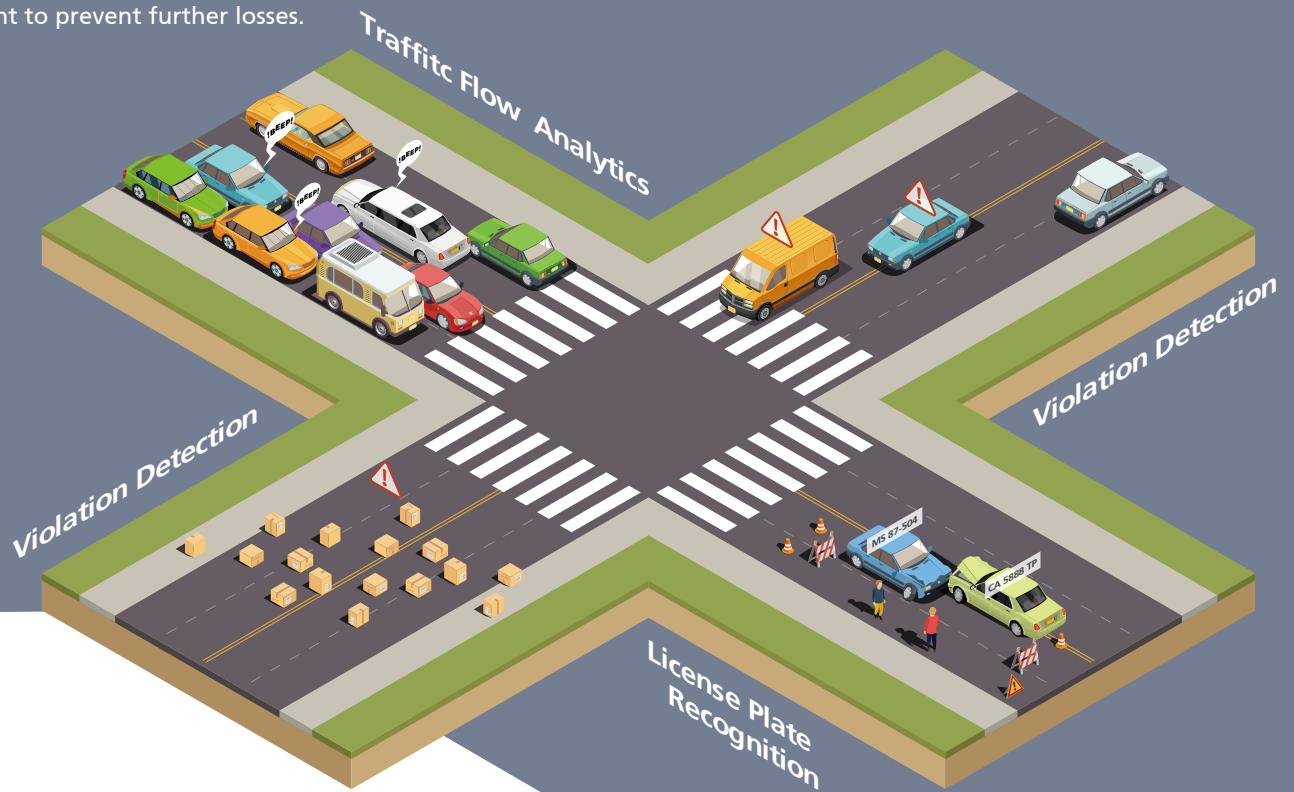# Traffic Vision

458
161.78
152.68
710.10
762.77
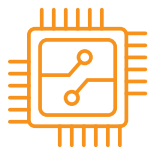
Vecow VTK Traffic Vision

NVIDIA Partner

VTK Traffic Vision

The Traffic Vision is an image recognition-based safety system designed for use in transportation hubs and major traffic arteries. It employs image recognition to detect and record violations, capture license plate information in a short time, and notify responsible personnel for effective risk management and loss mitigation. It offers traffic flow analysis in high-traffic areas, facilitating traffic monitoring and management. Real-time information is accessible through the management platform, with notifications sent via mobile, email, tablets, or lighting, enabling rapid response by law enforcement to prevent further losses.

Ready to use Edge AI Solution

VTK is a turn-key solution product that enables AI applications at the edge, such as traffic vision, surveillance, and factory automation. It enables real-time AI inferencing including video analytics, object recognition, and data processing, empowering businesses to make informed decisions swiftly with precision.

Industrial Grade Hardware

Enhanced reliability, durability, and performance providing long-lasting value to businesses.

Leading Ecosystem

Diverse of hardware and software combinations suitable for all application scenarios.

Easy Deployment

Ready to use system integrated AI platforms with pre-trained models and tools.
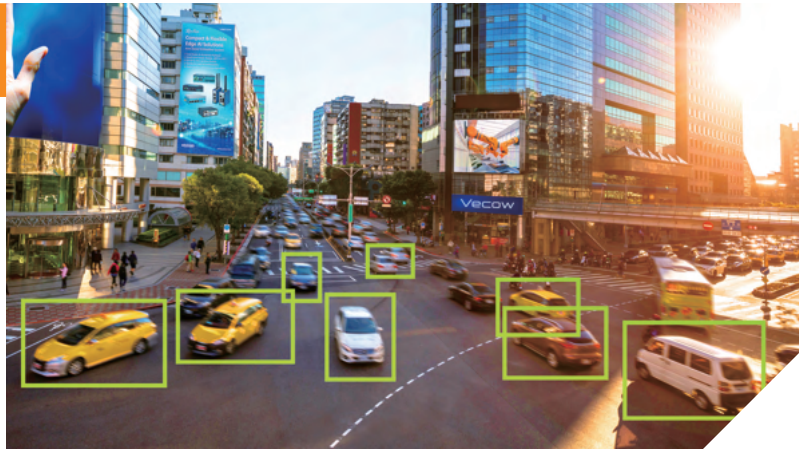
Enterprise Reliability

User friendly, seamless and dependable operations for your business.

Application Approach

Traffic Flow Analytics

The Traffic Vision analyzes traffic flow conditions and displays them in real-time on the management platform.

- Multi-object recognition
  (pedestrian, bicycle, motorcycle, car, truck and bus)
- Multi-events zone detecting Blacklist/whitelist notifications
- Adjusting the threshold to adapt the environment, which improves the accuracy
- Sorting and analyzing data by time/ vehicle types/ cameras/ events
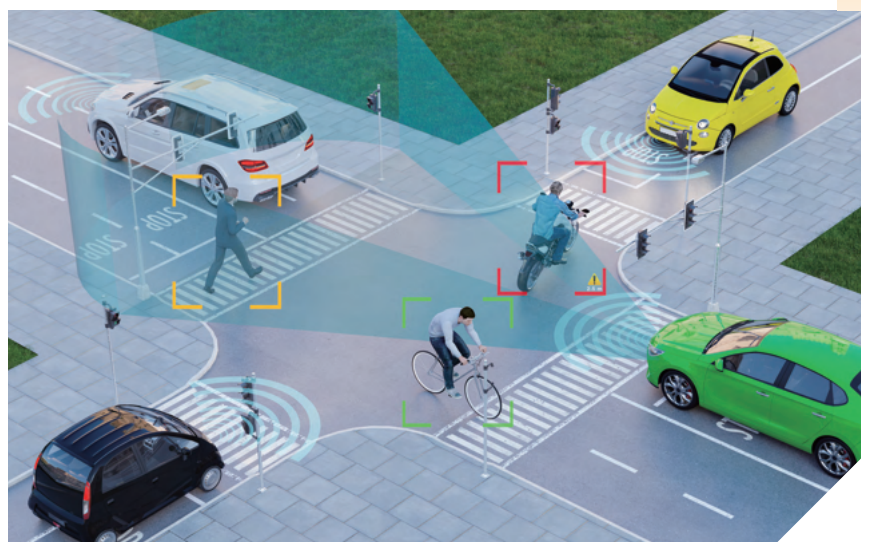
License Plate Recognition

The Traffic Vision analyzes license plate characteristics and records violations.

- Up to 200 km/h of License plate recognition speed
- 20-70 milliseconds of recognizing time
- Character Recognition: English alphabets, numbers and symbols (-) for multi-national license plate

Violation Detection

The Traffic Vision can automatically track violations and record the violation details. Including license plate recognition and recording the full-time video so can provide more details.

- Red light running, illegal parking, wrong-way driving, double yellow lines running, road without clearance, pedestrian detection, etc.
- On-site video provides full-time video/ event video, which is more comprehensive and precise for subsequent verification
- Multi-object recognition algorithm and tracking technology. Detecting car, truck, motorcycle, and bike at the same time.
- integrate the central management system and notifications sending, management by managers
- 6-12 violation event detection in one channel

Product Specification
For Standard VTK Traffic Vision, We provide…

Camera ×4

Mini Bullet Network Camera

· Max. 5MP(2592x1944) @30fps resolution
· Built-in 2.8mm megapixel fixed lens
· Built-in IR illumination, effective up to 30 meters
· True WDR for better visibility
· IP67/IK08-rated protection

Main System

EAC-5100

· 12-core Arm® Cortex®-A78AE v8.2 64-bit CPU
· 2048-core NVIDIA Ampere™ architecture GPU with 64 Tensor Cores
· Up to 64GB LPDDR5 DRAM
· 2x NVDLA Engines
· Support Linux / NVIDIA JetPack SDK
· 6 GigE LAN with 4 PoE⁺, 5 USB 3.1, 1 Digital Display supports 8K60

Optional Software License ×4

Traffic Flow Analytics

· Day and night image recognition
· Multi-object recognition
· Multi-events zone detecting
· Threshold setting
· Data analysis

License Plate Recognition

· Single/Mult-license plate recognition
· Day and night image recognition
· Recognition Record
· Character Recognition
· Real-Time reporting
· Video recording and storage

Violation Detection

· Multi-object recognition
· Multi-detection zone setting
· Event detection
· Event record
· Real time alert

Red Light Left Turn	Red Light Right Turn
Wrong-Way Driving	Illegal Parking
Jaywalking	Double Line Crossing
Run Over Red Light	Road With Obstructions
Not Yielding to Pedestrians	Car Park in Motorbike Area

We support custome hardware configuration and AI applications, please contact Vecow at sales@vecow.com for more detail.