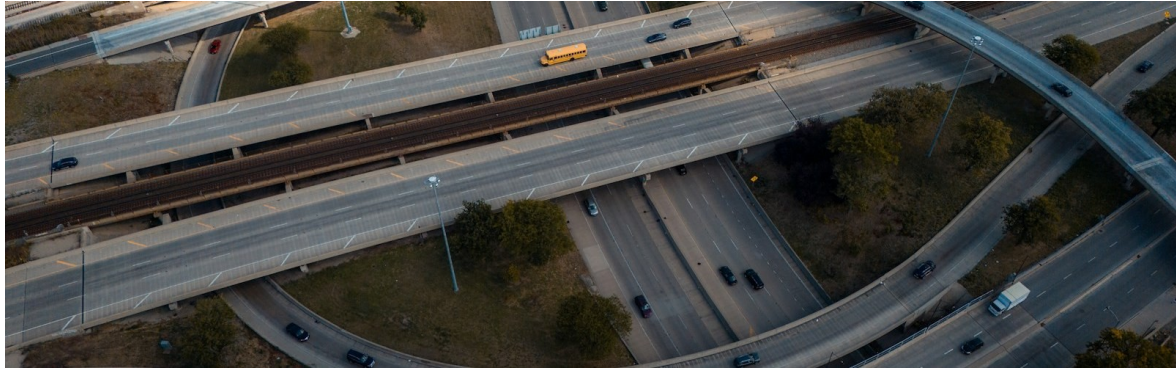




TRAFFICIQ™

Junction

Red-Light Enforcement & Intersection ANPR • Radar / LiDAR



SYSTEM OVERVIEW

TrafficIQ Junction is Achieva's intersection enforcement camera, purpose-engineered for red-light violation detection, urban ANPR, and multi-modal traffic management. Combining a 5 MP + 8 MP dual-head bispectral camera with an embedded red-light enforcement kit and Radar/LiDAR detection, it delivers court-grade evidence packs for signal violations alongside continuous ANPR — fully integrated with Achieva ConnectIQ.

KEY APPLICATIONS

Red-Light Violation Enforcement

Optical traffic-light state detection with stop-line crossing analysis; produces multi-image evidence packs per violation.

Urban ANPR & Surveillance

Continuous number plate recognition at intersections for territorial security, stolen-vehicle alerts, and law enforcement support.

Smart City Junctions

Integrated traffic light, red-light enforcement, and ANPR for command-and-control rooms and Smart City Operations Centres.

Wrong-Way & Stationary Vehicle Detection

AID algorithms detect wrong-way driving, stationary vehicles, slow traffic, and queue formation at urban crossings.

RED-LIGHT ENFORCEMENT CAPABILITIES

- Onboard video analytics with optical traffic-light state detection — no physical wiring to the traffic signal required.
- Configurable for 1 lane / 1 signal, 2 lanes / 1 signal, or 2 lanes / 2 signals with independent operating logic per signal.
- Real-time spatial representation of intersection with configurable virtual zones for stop-line crossing detection.
- Per-violation evidence pack: up to 6 colour photographs (3 before + 3 after stop line), 2 OCR images, full transit video clip, and a single 7-image composite for tribunal use.
- Image authentication via SHA-512 hashing with optional AES-256-ECB signature encryption.

POWERED BY ACHIEVA CONNECTIQ

Every TrafficIQ unit ships with native integration to Achieva ConnectIQ — our cloud-based enforcement platform delivering live violation feeds, evidence packs, automated challan workflows, fleet health monitoring, and analytics dashboards. One

platform, your entire fleet.

IMAGING & DETECTION SPECIFICATIONS

| | |
|----------------------------------|---|
| Configuration | Dual-head bispectral camera (OCR + colour context) |
| OCR sensor | 5 MP CMOS, IR global shutter, 2560 × 1936 pixels |
| Colour context sensor | 8 MP, rolling shutter |
| Frame rate (OCR / Colour) | Up to 75 fps / Up to 75 fps |
| Lane coverage | 2 lanes simultaneous |
| Plate reading speed | Up to 250 km/h in free-run mode |
| Optics | Standard varifocal lens, 8–50 mm |
| Illumination | Stroboscopic IR LED, 850 nm, Class 1M, synchronised pulse capture |
| Detection technology | Radar / LiDAR combination — selectable per project requirements |

CONNECTIVITY, POWER & ENVIRONMENT

| | |
|----------------------------|---|
| Network | Gigabit Ethernet, Wi-Fi, optional 4G LTE |
| Video streaming | RTSP H.264, HLS, MJPEG; ONVIF Profile S compliant |
| VMS integration | ONVIF Profile S compatible with all major Video Management Systems; native protocol support for industry-standard platforms |
| Storage | 128 GB SSD on-board (expandable up to 4 TB); continuous NVR with per-transit clip generation |
| API & protocols | REST API with token authentication; TCP/IP, UDP, HTTPS, FTPS, RTSP, openVPN, NTP, SNMP |
| Data security | AES-256-ECB encryption, SHA-512 image hashing, GDPR-compliant |
| Power supply | 24 VDC / 12 VDC / UPoE 60 W Class 6 / Solar; typical consumption 12 W |
| Environmental | -30 °C to +60 °C, IP67 (IK10 vandal-resistant available), up to 90% RH |
| Mounting | Pole, gantry, or mast-arm; orientable bracket included |

CERTIFICATIONS & COMPLIANCE

ISO 9001:2015 • ISO/IEC 27001:2022 • ISO/IEC 27017:2015 • ISO/IEC 27018:2019
 BIS • WPC • LMPC • EPR • FCC • CE • NEMA • NABL • ARAI Type Approval

READY TO DEPLOY?

Site surveys, technical demonstrations, and project proposals — hello@achievasystems.com • www.achievasystems.com