



# AIA-CO1TRF

Traffic (ITS) AI pack











### **Key Features**

- Detect and classify vehicles (car, truck, bus, motorcycle, bicycle)
- Wrong-way vehicle and illegal u-turn detection
- Vehicle speed detection
- Traffic jam and stopped vehicle detection
- Pedestrian detection
- Vehicle counting
- Vehicle turning movement counts
- Vehicle queue analysis
- Vehicle detection heatmap

### **Compatible Accessories** (Optional)













PND-A9081RV

PND-A9081RF

PNV-A9081R

PNO-A9081R

PND-A6081RV

PND-A6081RF

PNV-A6081R



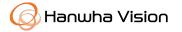




PNO-A6081R

PNB-A9001

PNB-A6001



# AIA-CO1TRF

## Traffic (ITS) AI pack

### **Specifications**

Installation Hanwha Vision open platform v5.x.x or higher Solution Traffic(ITS) pack Version v2.0  Analytics Classified object type Vehicle. License plate Setting. Exclude area setting Settings Sensitivity, Min/max size setting. Exclude area setting Settings Sensitivity, Min/max size setting. Exclude area setting Settings Vehicle (Type: car/bus/truck/motorcycle/bicycle) Attributes Vehicle(Type: car/bus/truck/motorcycle/bicycle) Attributes Vehicle(Type: car/bus/truck/motorcycle/bicycle) Attributes Vehicle (Experiment) Attributes Vehicle (Experiment) Attributes Vehicle (Experiment) Vehicle (E	Application	
Installation Hanwha Vision open platform v5.xx or higher Solution Traffic (ITS) pack Version v2.0 v2.0 v2.0 v2.0 v2.0 v2.0 v2.0 v2.0	Туре	Camera application
Version   V2.0   V2.	Installation	**
Analytics Classified object type Vehicle, License plate Settings Sensitivity, Min/max size setting, Exclude area setting BeatShot Support Attributes Vehicle (Type: car/bus/truck/motorcycle/bicycle) Analytics events Object detection, Line crossing(Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Stopped vehicle detection(Du to 3 hours. Three areas, Select vehicle types) Vehicle queue event(Occupancy per zone) Pedestrian detection(Three areas with duration) Vehicle speed detection(Up to 40km/h) Wrong-way detection When alarm trigger occurred File upload(image): — email/TPP Notification: — email — Recording: SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handower: PTZ preset, send message by HTTP/HTTPS/TCP Audio clip playback Motification: — email Recording: SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handower: PTZ preset, send message by HTTP/HTTPS/TCP Audio clip playback Motification: — email Recording: SD/SDHC/SDXC or NAS recording at event triggers Alarm output Handower: PTZ preset, send message by HTTP/HTTPS/TCP Audio clip playback Multi-lane vehicle turning movement counts (straight, left/right, u-turns): Up to 20 rules, Select vehicle (Type: car/bus/truck/motorcycle/bicycle) - Vehicle queue management: Real time zone counting, Generate events based on zone-specific thresholds Vehicle queue management: Real time zone counting, Generate events based on zone-specific thresholds Vehicle queue management: Real time zone counting, Generate events based on zone-specific thresholds Vehicle average speed in the zone (Traffic) am detection) Vehicle speed per vehicle (Vehicle speed detection) Occupancy real-time counting, Vehocle queue management)  Supported devices  Cameras  PND-A9081RV/A9081RF, PNN-A9081R, PND-A9081R, PND-A9081RX, PNB-A9001 - Firmware version: 2.2.1.35 or higher - S.10 + D P 10.14 or higher, S.11 + D P 11.3 or higher, S.12 or higher - Hanwha Plug-in for Genetec V.1.04.00 or higher - Hanwha Plug-in for Genetec V.1.04.00 or higher - Handows Plug-in for G	Solution	
Classified object type  Vehicle, License plate  Settings  Sensitivity, Min/max size setting, Exclude area setting  BestShot  Support  Vehicle(Type: car/bus/truck/motorcycle/bicycle)  Analytics events  Object detection, Line crossing(Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Stopped vehicle detection(Up to 3 hours. Three areas, Select vehicle types)	Version	·
Classified object type  Vehicle, License plate  Settings  Sensitivity, Min/max size setting, Exclude area setting  BestShot  Support  Vehicle(Type: car/bus/truck/motorcycle/bicycle)  Analytics events  Object detection, Line crossing(Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Stopped vehicle detection(Up to 3 hours. Three areas, Select vehicle types)		
Sensitivity, Min/max size setting, Exclude area setting BestShot Support Vehicle(Type: car/bus/truck/motorcycle/bicycle) Analytics events Object detection, Line crossing(Direction), Virtual area(Loitering/intrusion/Enter/Exit) Stopped vehicle detection(Up to 3 hours, Three areas, Select vehicle types) Traffic jam detection(Wehicle average speed per area, Two rules) Vehicle queue eventifoccupancy per zone) Pedestrian detection (Three areas with duration) Vehicle speed detection (Up to 40km/h) Wrong-way detection Vehicle speed detection (Up to 40km/h) Wrong-way detection Pedestrian detection (Poto 40km/h) Pedestrian detection (Poto 40km/h) Wrong-way detection Pedestrian detection (Poto 40km/h) Pedestrian detection	Analytics	
Support  Attributes  Vehicle(Type: car/bus/truck/motorcycle/bicycle)  Analytics events  Object detection, Line crossing(Direction), Virtual area(Loitering/Intrusion/Enter/Exit) Stopped vehicle detection(Up to 16 hours, Three areas, Select vehicle types) Traffic jam detection(Up to 16 hours, Three areas, Select vehicle types) Traffic jam detection(Up the areas with duration) Vehicle geueu event(Occupancy per zone) Pedestrian detection (Three areas with duration) Vehicle speed detection (Up to 40km/h) Wrong-way detection  When alarm trigger occurred File upload(linage): e-mail/FTP - Recording: SD/SDHC/SDXC or NAS recording at event triggers - Alarm output: - Handover: PTZ preset send message by HTTP/HTTPS/TCP - Audio clip playback - MQTT: publication  - Multi-lane vehicle turning movement counts (straight left/right u-turns): Up to 20 rules, Select vehicle (Type: car/bus/truck/motorcycle/bicycle) - Vehicle counting: Vehicle(Type: car/bus/truck/motorcycle/bicycle, Two lines with direction) - Vehicle queue management: Real time zone counting, Generate events based on zone-specific thresholds Vehicle counting: Vehicle(Type: car/bus/truck/motorcycle/bicycle, Two lines with direction) - Vehicle average speed in the zone (Traffic jam detection) - Vehicle average speed per vehicle (Vehicle speed detection) - Occupancy real-time counting/PNG for Heatmap data  Additional metadata  Vehicle average speed in the zone (Traffic jam detection) - Vehicle speed per vehicle (Vehicle speed detection) - Occupancy real-time counting/Vehicle queue management)  Supported devices  Cameras  PND-A9081RV/A9081RF, PNV-A9081R, PND-A9081R, PND-A9081RVX, PNV-A9081RX, PNB-A9001 - Firmware version: 2.21.15 or higher - PND-A6081R, PND-A6081R, PND-A6081R, PNB-A6001 - Firmware version: 2.21.15 or higher - Hanwha Plug-in for Genetec. v1.04.00 or higher  Wilestone - DP 12.2 ao rhigher - Hanwha Plug-in for Genetec. v1.04.00 or higher	Classified object type	Vehicle, License plate
Attributes  Vehicle(Type: car/bus/truck/motorcycle/bicycle)  Analytics events  Object detection, Line crossing(Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Stopped vehicle detection(Up to 3 hours, Three areas, Select vehicle types) Traffic jam detection(Whicle average speed per area. Two rules) Vehicle queue event(Occupancy per zone) Pedestrian detection (Three areas with duration) Vehicle speed detection(Up to 40km/h) Wrong-way detection  When alarm trigger occurred - File upload(image): e-mail/FTP - Notification: e-mail - Recording: \$10,50H/SDNC or NAS recording at event triggers - Alarm output - Handover: PT2 preset, send message by HTTP/HTTPS/TCP - Audio clip playback - MQTT: publication  - Multi-lane vehicle turning movement counts (straight, left/right, u-turns): Up to 20 rules, Select vehicle (Type: car/bus/truck/motorcycle/bicycle) - Vehicle queue management: Real time zone counting. Generate events based on zone-specific thresholds Vehicle heatmap  Statistics report  Reporting to FTP and Email by schedule XLSX, TXT file for counting, PNG for Heatmap data  Additional metadata  Vehicle average speed in the zone (Traffic) am detection) Vehicle speed per vehicle (Vehicle speed detection) Vehicle speed per vehicle (Vehicle speed detection) Vehicle speed per vehicle (Vehicle speed detection) - Firmware version: 2.21.15 or higher - PND-A0081R/NA0081RF, PNN-A0081R, PNO-A0081R, PND-A9081R, PND-A9081RX, PNB-A9001 - Firmware version: 2.21.15 or higher - Firmware version: 2.21.08 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher - Blazza or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher	Settings	Sensitivity, Min/max size setting, Exclude area setting
Analytics events  Object detection, Line crossing(Direction), Virtual area (Loitering/Intrusion/Enter/Exit) Stopped vehicle detection(Up to 3 hours, Three areas, Select vehicle types) Traffic jam detection(Wehicle average speed per area. Two rules) Vehicle queue event(Occupancy per zone) Pedestrian detection (Three areas with duration) Vehicle speed detection(Up to 40km/h) Wrong-way detection  When alarm trigger occurred - File upload(linege): e-mail/FTP - Notification e-mail/FTP -	BestShot	Support
Stopped vehicle detection(Up to 3 hours, Three areas, Select vehicle types) Traffic jam detection(Nehicle average speed per area, Two rules) Vehicle queue event(Occupancy per zone) Pedestrain adetection (Three areas with duration) Vehicle speed detection(Up to 40km/h) Wrong-way detection When alarm trigger occurred - File upload(image): e-mail/FTP - Notification: e-mail - Recording: SD/SDHC/SDKC or NAS recording at event triggers - Alarm output - Handover: PTZ preset, send message by HTTP/HTTPS/TCP - Audio clip playback - MQTT: publication  Statistics  - Multi-lane vehicle turning movement counts (straight, left/right, u-turns): Up to 20 rules, Select vehicle (Type: car/bus/truck/motorcycle/bicycle) - Vehicle counting: Vehicle(Type: car/bus/truck/motorcycle/bicycle, Two lines with direction) - Vehicle even management: Real time zone counting. Generate events based on zone-specific thresholds Vehicle heatmap  Statistics report  Reporting to FTP and Email by schedule XLSX_TXT file for counting, PNG for Heatmap data  Additional metadata  Vehicle average speed in the zone (Traffic jam detection) - Vehicle speed per vehicle (Vehicle speed detection) - Occupancy real-time counting(Vehicle queue management)  Supported devices  Cameras  PND-A9081RV/A9081RF, PNV-A9081R, PNO-A9081R, PND-A9081RVX, PNV-A9081RX, PNB-A9001 - Firmware version: 2.2.1.15 or higher - PND-A6081RV, A6081RR, PNN-A6081R, PNB-A6001 - Firmware version: 2.2.1.08 or higher - S.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher  PND-20 higher - Hanwha Plug-in for Genetec_v1.04.00 or higher	Attributes	Vehicle(Type: car/bus/truck/motorcycle/bicycle)
- File upload(image): e-mail/FTP - Notification: e-mail - Recording: SD/SDHC/SDXC or NAS recording at event triggers - Alarm output - Handover: PTZ preset, send message by HTTP/HTTPS/TCP - Audio clip playback - MQTT: publication  Statistics - Multi-lane vehicle turning movement counts (straight, left/right, u-turns): Up to 20 rules, Select vehicle (Type: car/bus/truck/motorcycle/bicycle) - Vehicle counting: Vehicle(Type: car/bus/truck/motorcycle/bicycle, Two lines with direction) - Vehicle queue management: Real time zone counting Generate events based on zone-specific thresholds Vehicle heatmap  Statistics report - Reporting to FTP and Email by schedule XLSX, TXT file for counting, PMG for Heatmap data  Vehicle average speed in the zone (Traffic jam detection) - Vehicle speed per vehicle (Vehicle speed detection) - Vehicle speed per vehicle (Vehicle speed detection) - Occupancy real-time counting(Vehicle queue management)  Supported devices  Cameras - PND-A9081RV/A9081RF. PNV-A9081R, PNO-A9081R, PND-A9081RVX, PNV-A9081RX, PNB-A9001 - Firmware version: 2.21.15 or higher - PND-A6081RV/A6081RP, PNV-A6081R, PND-A6081R, PNB-A6001 - Firmware version: 2.21.08 or higher - Firmware version: 2.21.09 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Analytics events	Stopped vehicle detection(Up to 3 hours, Three areas, Select vehicle types) Traffic jam detection(Vehicle average speed per area, Two rules) Vehicle queue event(Occupancy per zone) Pedestrian detection (Three areas with duration) Vehicle speed detection(Up to 40km/h)
vehicle (Type: car/bus/truck/motorcycle/bicycle)  - Vehicle counting: Vehicle(Type: car/bus/truck/motorcycle/bicycle, Two lines with direction)  - Vehicle queue management: Real time zone counting, Generate events based on zone-specific thresholds.  - Vehicle heatmap  Statistics report  Reporting to FTP and Email by schedule XLSX, TXT file for counting, PNG for Heatmap data  Additional metadata  Vehicle average speed in the zone (Traffic jam detection) Vehicle speed per vehicle (Vehicle speed detection) Occupancy real-time counting(Vehicle queue management)  Supported devices  Cameras  PND-A9081RV/A9081RF, PNV-A9081R, PNO-A9081R, PND-A9081RVX, PNV-A9081RX, PNB-A9001  - Firmware version: 2.21.15 or higher PND-A6081RV/A6081RF, PNV-A6081R, PNO-A6081R, PNB-A6001  - Firmware version: 2.21.08 or higher  NIntegration  Al search  Genetec Security Center  - 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher  - Hanwha Plug-in for Genetec_v1.04.00 or higher  Nilestone  - DP 12.2a or higher  - Hanwha Plug-in for Milestone_v1.05.00 or higher	Event action (Cameras event rule setup)	<ul> <li>File upload(image): e-mail/FTP</li> <li>Notification: e-mail</li> <li>Recording: SD/SDHC/SDXC or NAS recording at event triggers</li> <li>Alarm output</li> <li>Handover: PTZ preset, send message by HTTP/HTTPS/TCP</li> <li>Audio clip playback</li> </ul>
Additional metadata  Vehicle average speed in the zone (Traffic jam detection) Vehicle speed per vehicle (Vehicle speed detection) Occupancy real-time counting(Vehicle queue management)  Supported devices  Cameras  PND-A9081RV/A9081RF, PNV-A9081R, PNO-A9081R, PND-A9081RVX, PNV-A9081RX, PNB-A9001 - Firmware version: 2.21.15 or higher PND-A6081RV/A6081RF, PNV-A6081R, PNO-A6081R, PNB-A6001 - Firmware version: 2.21.08 or higher  Integration  Al search  Genetec Security Center - 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Statistics	vehicle (Type: car/bus/truck/motorcycle/bicycle) - Vehicle counting: Vehicle(Type: car/bus/truck/motorcycle/bicycle, Two lines with direction) - Vehicle queue management: Real time zone counting, Generate events based on zone-specific thresholds.
Vehicle speed per vehicle (Vehicle speed detection) Occupancy real-time counting(Vehicle queue management)  Supported devices  Cameras  PND-A9081RV/A9081RF, PNV-A9081R, PNO-A9081R, PND-A9081RVX, PNV-A9081RX, PNB-A9001 - Firmware version: 2.21.15 or higher PND-A6081RV/A6081RF, PNV-A6081R, PNO-A6081R, PNB-A6001 - Firmware version: 2.21.08 or higher  Integration  Al search  Genetec Security Center - 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Statistics report	
PND-A9081RV/A9081RF, PNV-A9081R, PNO-A9081R, PND-A9081RX, PNB-A9001 - Firmware version : 2.21.15 or higher PND-A6081RV/A6081RF, PNV-A6081R, PNO-A6081R, PNB-A6001 - Firmware version : 2.21.08 or higher  Integration  Genetec Security Center - 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Additional metadata	Vehicle speed per vehicle (Vehicle speed detection)
- Firmware version : 2.21.15 or higher PND-A6081RV/A6081RF, PNV-A6081R, PNB-A6001 - Firmware version : 2.21.08 or higher  Integration  Al search  Genetec Security Center - 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Supported devices	
Genetec Security Center - 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Cameras	- Firmware version : 2.21.15 or higher PND-A6081RV/A6081RF, PNV-A6081R, PNO-A6081R, PNB-A6001
-5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher - Hanwha Plug-in for Milestone_v1.05.00 or higher	Integration	
Application Programming Interface Hanwha Vision OpenAPI	Al search	- 5.10 + DP 10.14 or higher, 5.11 + DP 11.3 or higher, 5.12 or higher - Hanwha Plug-in for Genetec_v1.04.00 or higher Milestone - DP 12.2a or higher
	Application Programming Interface	Hanwha Vision OpenAPI

#### License

Design and specifications are subject to change without notice. The latest product information / specification can be found at HanwhaVision.com. Hanwha Vision is formerly known as Hanwha Techwin.



Trial version	Supported (60days) model code : AIA-CO1TRF-T60/EX
Sales version	model code : AIA-CO1TRF/EX