



Smart+ Traffic Light

The new generation of AI red light enforcement cameras

- ❖ Vehicle trajectory recognition is used to analyze vehicle behavior within the field of view. This provides valuable data for various applications.
- ❖ The system can recognize illegal turns and stops, track the vehicle, and read its license plate when it enters or transits through a preconfigured region of interest.
- ❖ Smart+ Traffic light is equipped with new high-quality sensor (8Mpx on the OCR channel), providing better image quality, and covering up to 2 lanes.
- ❖ Compatible with Stark, the new secure by design software architecture, provides a fully parametrizable platform, totally modular, with a multilingual and super user-friendly web interface.
- ❖ The system can detect right turns and exclude turning vehicles from the violation area.
- ❖ Virtual Loops can detect violations without the need for road work. The violation line can be set directly in the camera software.
- ❖ It can detect vehicles up to 320 km/h (198 mph) with a detection accuracy level of 99%.
- ❖ BCCM algorithm available on-board. The camera captures the license plate, brand, class, color, and model to create a complete vehicle fingerprint in a single report.
The camera provides all the vehicle data in a fully customizable message format and protocol.
- ❖ Smart+ Traffic Light identify the red light status through image analysis (without external sensors or connections); therefore the installation and maintenance costs are reduced.



TRAFFIC LIGHT ENFORCEMENT

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SMART+ TRAFFIC LIGHT	
Software features and Performance	
Software platform	Stark
AI hw accelerator	Up to 2 hardware accelerators
Lane Detected	Up to 2 lanes
Working Distance	Up to 25m - 83 ft
Detection	>99%
Reading	Up to 98%
OCR	Up to 3 ANPR (ALPR) engines on board
Third party OCR	Optional
Classification	Optional
Vehicle Color	Optional
Vehicle Maker	Optional
Vehicle Model	Optional
Video Streaming	Color video streaming via standard RTSP protocol
AES256	Yes
SHA2	Yes
Image Compression	JPG
Streaming Profile	H.264, H.265
Configuration	
Web Server	Installation and configuration with on board Web Application
Integration	Support for HTTP REST API
Date and Hour	Synchronization via NTP protocol or GPS
Software Update	Upgrading via Web Application and integration protocols
Data Transmission	
Output Action Types	HTTP, HTTPS, FTP, SFTP, TCP RAW, Serial Communication, Local Storage
Message formats	Fully customizable message formats including JSON, XML, custom string
Configuration	Configurable events/actions and metadata
Serial Port	Yes, RS485 full duplex
Digital output event	Yes
FTP Server	Yes, access to storage partition

SMART+ TRAFFIC LIGHT	
Op. Mode	
Autotrigger	Self-triggering based on AI image analysis on multiple lanes, even without plates
Trigger mode	Image capture and processing triggered by Ethernet or digital signal
System	
ANPR (ALPR) camera	8 Megapixels Grayscale
Context Camera	5 Megapixels Color
Illuminator	12 high power LEDs, infrared @ 850 nm
Lenses	Fixed lens configuration
Operating System	Linux Operating System
Custom software	Optional, with Linux container
Digital I/O	1 Optoisolated input - 1 Relay Output - 2 Strobe output - Optional I/O Extension Module
IP Protection	IP68
Ethernet	GigaBit Ethernet 10/100/1000
Storage	uSD up to 128 GB
Internal SSD	Optional up to 1TB
GPS	Yes
LTE	Optional
WiFi	Yes
PSE	Yes
Technical Data	
Operating & Storage Temperature	From -40° to +60° C - <i>From -40° to +140° F</i>
Operating & Storage Humidity	Up to 95% non-condensing
Dimensions	290 x 127 x 235 mm - <i>11.4 x 5.0 x 9.3 in</i> (excluding antenna and connectors)
Weight	6,5 kg - <i>14.3lbs</i>
Power supply voltage	24 Vdc
Power consumption (typical)	40W (standard config), 50W (full config)
Power consumption (maximum)	82W

Part Numbers

SMART+ TRAFFIC LIGHT	
F02343-000	Smart Traffic Light