



Yutrafic awareAI

Product Datasheet

uk.yunextraffic.com

YUNEX
TRAFFIC

Overview

The cutting edge Yutrafic awareAI solution leverages advanced AI-driven video processing to enable multi-modal signal control and provide rich data insights from the road network.

Each awareAI deployment supports multiple cameras allowing wide visibility and detection around an intersection. Designed specifically for traffic signal installations, the awareAI system is housed in a dedicated 4U 19" traffic controller cabinet rack and provides flexibility in configuration for both signal controller integration and remote connectivity options.

Solution features

- Built on a powerful AI-trained engine, awareAI ensures high accuracy detection and multi-modal insights
- Software applications can be selected and combined to achieve a variety of use cases including modal data collection and turning count analysis
- Supports up to 6 cameras for wide intersection visibility
- Designed for local controller integration with up to 32 digital outputs, allowing easy use of rich data for signal control applications
- Configurable 19" 4U Rack that is flexible for site requirements with options for digital relay units and dedicated LTE router for remote communications
- Two camera options are available, with either wide-angle or narrow-angle coverage
- Designed with dedicated mounting arrangements for both Yunex extension pole deployments and standard 6m traffic signal poles

Solution benefits

- The multi-camera system provides significant cost savings when used for intersection-wide detection with the further benefit of deep data insights about the road network and its usage
- Supports Active Travel, Bus Service Improvements and other multi-modal policies
- Similar to other above-ground detection technologies, there is a reduced need for expensive and intrusive ground works for installation and maintenance
- Flexibility of configuration that can be carried out remotely allows for easy adjustment as required
- awareAI is a "buy-once, own forever" solution with no on-going license costs, ensuring the asset lifetime costs remain low
- The system ensures full GDPR and DPA compliance where no personal data is captured or recorded, layered with additional anonymisation features for enhanced data privacy and integrity
- Designed in alignment with traffic signal control standards, ensuring adherence to the strict specifications that are required for road-side deployments

Technical Specification

awareAI Rack

Supply Voltage	48V DC 12V DC
Maximum Power Consumption full configuration	104W
AI Processing Performance	100 TOPS
Memory	16GB
Storage	512GB
Operating Temperature	-40°C to 70°C
Dimensions	177mm (H) x 483mm (W) x 255mm (D)
Weight	6.82kg
Security	TLS 1.2 secured communication
Cellular Interface via dedicated router	2x SMA Female (1x Main, 1x Diversity)
Data Privacy	Compliance with Article 28(3) and (4) of Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016
Standards	General (Road Traffic Signal Systems): - BS EN 50556:2018 EMC: - BS EN 55032:2015 + A11:2020 - BS EN 50293:2012 Vibration: - BS EN 60068-2-64:2008+A1:2019
Product Conformance	- CE - UKCA
Supported Road User Classifications	- Pedestrian - Cyclist - Scooter - Motorcycle - Car - Car with trailer - Van - Light Truck - Heavy Truck - Truck with trailer - Bus - Tram

Technical Specification

awareAI Wide Angle Camera

Power	IEEE 802.3af/802.3at Type 1 Class 3
Power Consumption	4W – typical 10.5W – maximum
Focal Length	2.4mm
Horizontal Field of View	130°
Vertical Field of View	73°
Minimum Illumination	0.19 lux @ F1.2 (Colour) 0.04 lux @ F1.2 (B/W) 0 lux with IR illumination active
IR Illumination	20m or more
Network Protocol	RTSP
Operating Temperature	-30°C to 50°C
Ingress Protection	IP66
Humidity	10-100% (non-condensing)
Dimensions	93mm (H) x 79mm (ø)
Weight	390g
Recommended Minimum Mounting Height	6m
Standards	EMC: • EN 55024 • EN 55035 • EN 55032 • EN 61000-6-1 • EN 61000-6-2 Safety: • EN 62368-1 • EN 62471 Environment: • EN 60529 IP66 • EN 62262 IK08
Product Conformance	CE

Technical Specification

awareAI Narrow Angle Camera

Power	EEE 802.3af PoE Class 2
Power Consumption	6.49W – maximum
Focal Length	3.6mm
Horizontal Field of View	76°
Vertical Field of View	59°
Minimum Illumination	0.03 lux @ F2.0 (Colour) <0.005 lux @ F2.0 (B/W) 0 lux with IR illumination active
IR Illumination	30m
Network Protocol	RTSP
Operating Temperature	-30°C to 60°C
Ingress Protection	IP66
Humidity	90%
Dimensions	176.8 mm (L) x 91mm (ø)
Weight	530g
Recommended Minimum Mounting Height	6m
Standards	EMC: • EN 55024 • EN 55032 Safety: • EN 62368-1 • EN 62471 • EN 60950-22 Environment: • EN 60529 IP66 • EN 62262 IK08
Product Conformance	CE