Vantage Apex™

The future is here.

AI-powered HD video and radar detection in a single sensor

Industry-leading detection and tracking, powered by the latest artificial intelligence (AI) algorithms

1080p high-definition video for brilliant display at the traffic management center

Hybrid video/radar sensor provides the most complete data set for signal performance measures & adaptive systems

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Vantage Apex™ is the industry's first 1080p HD video and 4D/HD radar sensor with integrated AI algorithms, making this full-featured multimodal detection system stand apart from anything on the market today.

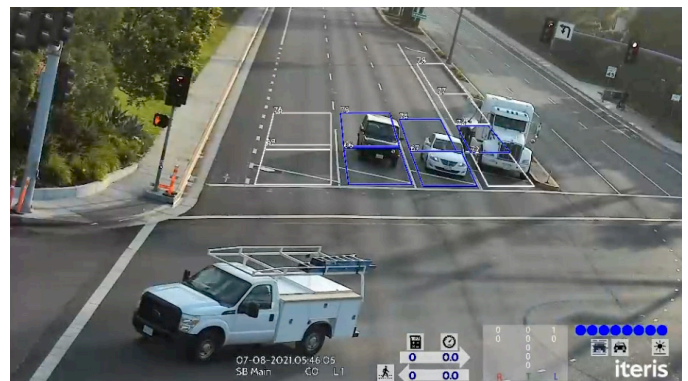### Unique AI Algorithms for Detailed Vehicle Detection and Object Classification

Built on the leading AI compute platform, Iteris' AI video analytics identifies objects based on machine learning using Iteris' extensive image library and high performing neural network algorithms. This enables incredible precision and detailed classification of many different vehicle types and vulnerable road users such as pedestrians and cyclists.

High-Definition Video for Unmatched Clarity

Full HD video streaming using 1080p cameras results in ultra-crisp-vision with unmatched depth and clarity of traffic at your intersections. Gain crystal-clear viewing in your traffic management center or remotely on mobile devices via the Iteris Video Viewer app.

Complete Multimodal Detection in a Single System

Using forward-fire radar technology, to virtually eliminate occlusion, this hybrid sensor uses industry-leading 4D/HD radar technology with a field of view exceeding 600 feet.

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The Vantage Apex sensor enables decision-zone safety functions, collision avoidance and advanced lane-by-lane detection that delivers precise traffic detection and data.

The Ideal Sensor for Advanced Traffic Applications

Vantage Apex improves efficiency and responsiveness by providing real-time, accurate and robust detection data streams that feed into any adaptive control system.

Additional Benefits

- Connected vehicle ready – able to provide critical infrastructure data through either DSRC or C-V2X communications, including through Iteris' BlueTOAD® Spectra™ CV.
- Includes SmartCycle® and PedTrax® for bicycle and pedestrian detection and counting.
- Embedded 'mouse and monitor' setup in addition to Laptop or remote setup.
- Easy installation – a simple three-wire cable and shelf-mount cabinet control units make installation quick and cost-effective.

- Comprehensive on-screen display includes many features for instant monitoring of system.
- Flexibility – choose from either a hybrid video and radar sensor option or a video-only sensor option.
- VantageCare™ eligible – compatible with the VantageCare detection health monitoring service.
- Fully compatible with Iteris' ClearGuide™ SPM and VantageLive!®, as well as other third-party web and mobile-based traffic measurement applications.

Specifications

SYSTEM - GENERAL

Environmental	
Temperature	-35°F to +165°F (-34°C to +74°C)
Humidity	0% to 95% non-condensing
Vibration	0.5G, 3 axes, 5-30Hz
Shock	10G in all 3 axes
Ingress Protection	IP 67
Regulatory	NEMA TS-2
	FCC Part15, Class A
Warranty	3 Years limited warranty

SENSOR HEAD - GENERAL

Connections	Terminal Block
Communications	Ethernet over Power line
Power	Voltage – 110VAC
	Consumption: Camera Only - 15W (Max) Hybrid - 25W (Max)
Dimensions (Excluding Mounting Bracket)	Camera Only – 16" (406mm) D x 6.25" (159mm) W x 7" (178mm) H Hybrid - Physical 17" (432mm) D x 15" (381mm) W x 14" (356mm) H
Weight	Camera Only – 5lbs (2.3kg) Hybrid – 10lbs (4.55kg)

SENSOR HEAD - CAMERA

Imager	1080P 30FPS
	1 Lux Minimum Illumination
	3D-DNR Noise Reduction
Lens	Lens 12x Optical Zoom
	Focal Length 5.4° tele to 50.7° wide
	Dynamic Range > 100dB
Heater	Indium Tin Oxide

SENSOR HEAD - RADAR

Frequency	24GHz (K-Band)
Accuracy	Speed 0 to 150mph ±1mph (0 to 240kph ±1.5kph)
Tracked Objects	Up to 64

CABINET INTERFACE

Configuration	Up to 4 sensors
Communications	Ethernet
	USB x4
	SDLC
	EMBUS
Cabinet Interface (CI) Dimensions	10" (254mm) D x 4" (101.6mm) W x 10" (254mm) H
Power Injector (PI) Dimensions	10" (254mm) D x 4" (101.6mm) W x 10" (254mm) H

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