The Next / Radius shelf mount CCU is open for orders and is available to ship mid September. CCU information on pages 3 and 7.
VantageRadius™
Radar technology and streaming video for stop bar detection

Included with the VantageRadius system

- Forward-fire radar for accurate vehicle detection
- High resolution video streaming for intersection monitoring
- Automated data collection

Radar presence detection

VantageRadius™ is the newest sensor in the Iteris Vantage family that utilizes radar technology for vehicle detection at the intersection stop bar. VantageRadius builds on the success of the Vantage Vector hybrid detector offering a combination of radar and video designed specifically for stop bar detection at the intersection.

Using radar and Iteris’ enhanced detection algorithms ensures that VantageRadius can accurately detect vehicles and vehicle speeds as they approach the intersection, enabling the intersection to operate at its peak efficiency. The system is built on the simple-to-use Vantage Next® platform and continues the Iteris tradition of ease of installation and simple configuration.

Monitor your intersection with live video stream

Included with the VantageRadius sensor is a high resolution digital camera that streams live video back to a central management location, providing agencies with the ability to monitor and take action on the operation of their intersection. This video stream can also be used in place of other surveillance cameras to stream live video to your traffic management center video wall and mobile applications from Iteris.
VantageRadius™
Radar technology and streaming video
for stop bar detection

**Benefits**
- Low life cycle cost
- Easy to install, configure, and maintain
- Remote intersection viewing
- Visual feedback to ensure sensor is operational
- Low power operation
- Multiple CCU configurations available

**SPECIFICATIONS**

**Sensor Head**
- **Weight**: 3lbs (1.4kgs)
- **Sensor Dimensions**: 6.5”W x 5.5”T x 8.5”D (165mm x 140mm x 216mm)
- **Environmental**: IP67 rated enclosure

**Radar Sensor**
- **Frequency**: 24 GHz (K-band)
- **Tracked Objects**: 64
- **Detection**: Across 10 lanes of traffic
- **Distance**: 300+ feet (90 m)
- **Coverage Angle**: +/- 35 degrees
- **Power Consumption**: 48VDC, 5W max.
- **Connections**: Terminal Block

**Processor**
- **Power**: 12 or 24 VDC, 5W typical
- **Video Output**: Compressed Digital Stream
- **Detector I/O**: 4 open-collector outputs and 4 inputs per Processor card
- **Power**: 12 or 24 VDC, 5W typical
- **Extension modules**: 64 total outputs /64 total inputs using

**Status Indicators**
- **Primary power**:
- **Video input status**:
- **Detection outputs**:

**Communications**: Ethernet

**Camera**
- **Sensor**: 1/3” CMOS, 1.3MP, WDR
- **Lens**: Fixed Zoom lens, 70° viewing angle
- **Minimum Illumination**: 0.1 Lux

**19” Rack Mount CCU**
- **Power**: 110/220 60/50 Hz 20 W Max
- **Dimensions**: 19” x 8.75” x 17.75” (483mm x 222mm x 45mm H)
- **Weight**: 39 lb (17.7kg)
- **Configurations**: Up to 4 sensors, processors required

**NEMA Shelf Mount CCU**
- **Power**: 48VDC @ 120W
- **External Power Supply**: DIN Rail 110-240VAC
- **Dimensions**: 4” L x 10.5” D x 10.5” H (102mm L x 267mm D x 267mm H)
- **Weight**: 6lbs (2.72kgs)
- **Configurations**: Up to 4 sensors, processors required
- **TS2**: 2 sensor or 4 sensors, no processors required

**General**
- **Op. Temperature**: -35°F to +165°F (34oC to +74oC)
- **Humidity**: 0% to 95% non-condensing
- **Vibration**: 0.5G, 3 axes, 5-30Hz
- **Shock**: 10G in all 3 axes
- **Regulatory**: NEMA TS-2 compliant
- **FCC part 15, Class A**
- **3 years limited warranty**

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Vantage Next® Camera
State-of-the-art video detection that delivers superior performance on a scalable platform

Benefits of the VantageNext system

- Includes SmartCycle® and PedTrax™
  Provides automated bicycle and pedestrian counts
- Single CAT5 sensor cable for ease of installation
- Captures traffic data including turning movement counts

State-of-the-art video detection system

Vantage Next® is Iteris’ next generation video detection system that capitalizes on the latest technology. Vantage Next uses a powerful processor that enables future functional growth while maintaining proven Iteris video detection performance and reliability. The architecture supports expanding ITS applications and easily integrates with existing and future technologies.

Today’s traffic engineers and planners need real-time data to ensure maximum efficiency and effectiveness of traffic management solutions. Vantage Next captures all the data necessary to allow the local traffic controller to manage the intersection remotely while delivering network-wide data back to the traffic management center.

Simple to install and set up

Vantage Next improves the lifecycle cost by simplifying the cabling between the camera and the traffic cabinet and within the cabinet itself. No special tools are required for installation. Exceptional vehicle detection through advanced algorithm design.
Vantage Next® Camera

State-of-the-art video detection that delivers superior performance on a scalable platform

Benefits
- Low lifecycle cost
- Easy to install, configure, and maintain
- CAT5 cable connections
- Simple and convenient access
- Flexible and scalable
- Automatic traffic counting
- FOV set up from the ground

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Imager</th>
<th>768 x 494 effective pixels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>470 TV lines minimum</td>
</tr>
<tr>
<td></td>
<td>Automatic white balance</td>
</tr>
<tr>
<td></td>
<td>&gt;50 dB S/N ratio</td>
</tr>
<tr>
<td></td>
<td>Dynamic range &gt;100 dB</td>
</tr>
<tr>
<td></td>
<td>1 lux capable</td>
</tr>
<tr>
<td></td>
<td>3D-DNR Noise Reduction</td>
</tr>
<tr>
<td>Lens</td>
<td>Focal length for a horizontal field of view ranging from 5.4° tele to 50.7° wide</td>
</tr>
<tr>
<td></td>
<td>12x zoom</td>
</tr>
<tr>
<td>Focus</td>
<td>Adjustable/auto focus</td>
</tr>
<tr>
<td>Connections</td>
<td>Terminal block type connection</td>
</tr>
<tr>
<td></td>
<td>RJ45 option</td>
</tr>
<tr>
<td>Physical</td>
<td>Dimensions 16” (406 mm) L x 6.25” (159 mm) W x 7” (178 mm) H (without mounting bracket)</td>
</tr>
<tr>
<td></td>
<td>Weight 4.8 pounds (2.2 Kg), including camera, lens, using, sunshield, and mounting bracket</td>
</tr>
<tr>
<td>Environment</td>
<td>Temperature -35°F to +165°F (-34°C to +74°C)</td>
</tr>
<tr>
<td></td>
<td>Humidity 0% to 95% non-condensing</td>
</tr>
<tr>
<td></td>
<td>Vibration 0.5G, 3 axes, 5-30Hz</td>
</tr>
<tr>
<td></td>
<td>Shock 10G in all 3 axes</td>
</tr>
<tr>
<td></td>
<td>Heater Indium Tin Oxide, proportional power</td>
</tr>
<tr>
<td></td>
<td>Power 48VDC, 5W</td>
</tr>
<tr>
<td></td>
<td>Communications DCAM I/F</td>
</tr>
<tr>
<td></td>
<td>Environmental IP-67</td>
</tr>
<tr>
<td></td>
<td>Regulatory NE MTA TS-2 compliant.</td>
</tr>
<tr>
<td></td>
<td>FCC part 15, Class A</td>
</tr>
<tr>
<td>Warranty</td>
<td>3 years limited warranty</td>
</tr>
</tbody>
</table>

Vantage Next Viewer and Next Setup Tool

Optional RJ45 bulkhead connection

Windows is a registered trademark of Microsoft. iOS is a registered trademark of Apple.
Vantage Next® Platform
The next generation of an integrated detection system

Features of the Vantage Next platform

- Integrated multi-feature control cabinet system for simple installation
- Sending high-resolution streaming video to a traffic management center
- Form factor options for different cabinet configurations

State-of-the-art platform
Vantage Next® is Iteris’ next generation video detection platform that capitalizes on the latest technology. Vantage Next uses a powerful processor that enables future functional growth while maintaining proven Iteris video detection performance and reliability. The architecture supports expanding ITS applications and easily integrates with existing and future technologies.

Easy setup and Configuration
With a user-friendly configuration software and fewer components, the Vantage Next platform sets the bar for simple installation and ease of use.

Surge Panels and Extenders
Vantage Next® Platform
The next generation of an integrated detection system

**Benefits**
- Easy to install, configure and maintain
- CAT5 cable connections
- Simple and convenient access
- Flexible and scalable
- Multiple CCU configurations available

### SPECIFICATIONS

#### Video Processor
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>12 or 24 VDC, 5W typical</td>
</tr>
<tr>
<td>Video Output</td>
<td>Compressed Digital Stream</td>
</tr>
<tr>
<td>Detector I/O</td>
<td>4 open-collector outputs and 4 inputs per processor card</td>
</tr>
<tr>
<td></td>
<td>128 total outputs /64 total inputs using extension modules</td>
</tr>
<tr>
<td>Status Indicators</td>
<td>Primary power</td>
</tr>
<tr>
<td></td>
<td>Video input status</td>
</tr>
<tr>
<td></td>
<td>Detection outputs</td>
</tr>
<tr>
<td>Communications</td>
<td>Ethernet, DCAM I/F</td>
</tr>
</tbody>
</table>

#### CCU
<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communications</td>
<td>Ethernet</td>
</tr>
<tr>
<td></td>
<td>USB Type A (x2)</td>
</tr>
<tr>
<td></td>
<td>Wi-Fi</td>
</tr>
<tr>
<td></td>
<td>SDLC communications</td>
</tr>
<tr>
<td>Video Output</td>
<td>MPEG-4 and H.264</td>
</tr>
<tr>
<td></td>
<td>Resolution D1 (720x480 pixels)</td>
</tr>
<tr>
<td></td>
<td>Fixed frame rate of 15fps</td>
</tr>
</tbody>
</table>

#### 19” Rack Mount
- **Power**: 110/220 60/50 Hz 20 W Max
- **Dimensions**: 19" L x 8.75" D x 1.75" H (483mm L x 222mm D x 45mm H)
- **Weight**: 3.9 lb (1.77kg)
- **Configurations**: Up to 4 cameras, video processors required

#### NEMA Shelf Mount
- **Power**: 48VDC @ 120W
- **External Power Supply**: DIN Rail 110-240VAC
- **Dimensions**: 4” L x 10.5” D x 10.5” H (102mm L x 267mm D x 267mm H)
- **Weight**: 6lbs (2.72kgs)
- **Configurations**: Up to 4 cameras, video processors required
  - TS2; 2 cam or 4 cam, no video processors required

#### General
- **Op. Tempature**: -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
- **Regulatroy**: NEMA TS-2 compliant
  - TS2, 2 cam or 4 cam, no video processors required
- **Warranty**: 3 years limited warranty

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**Vantage Next Viewer and Next Setup Tool**

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iOS is a registered trademark of Apple.

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The power of video and radar sensor fusion

Benefits of the Vantage Vector

- Dilemma zone detection
- Enhanced data information includes vehicle volume, speed, and distance
- Single-sensor for stop bar and advanced detection

The proven power of video...and more

Vantage Vector® is an all-in-one vehicle detection sensor with a wide range of capabilities: stop bar detection, advanced-zone detection, and sensing that enables advanced safety and adaptive control applications.

It includes all the proven benefits of Iteris video detection: high accuracy, high availability, the video image for remote viewing, no trenching or pavement cutting for installation, and SmartCycle® technology.

Enhanced dilemma-zone precision

Vantage Vector offers high precision for dilemma zone detection by integrating the video field-of-view with radar sensing. Enhanced information includes the number of vehicles, speed, and distance in user configurable zones, that can be used for special applications.

Extended range for higher speed approaches

The extended range of the advanced zone includes enhanced count, speed, and occupancy (CSO) measurements, where data from advanced detection zones is desired.
**Vantage Vector®**
The power of video and radar sensor fusion

### More Benefits
- Performs in the most challenging lighting conditions
- Advanced self-cleaning camera lens ensures lower maintenance
- Provides for advanced intersection safety features such as Dilemma Zone and all Red Protect with compatible signal controllers
- Advanced radar detection to over 500 feet from sensor head

### SPECIFICATIONS

<table>
<thead>
<tr>
<th>Vector Sensor</th>
<th>Vector on Edge2 Platform</th>
<th>Vector on Next Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image Sensor</strong></td>
<td>Electrical</td>
<td>110/220 VAC, 10W (typical), 20W (peak)</td>
</tr>
<tr>
<td>1/4&quot; CCD</td>
<td>Radar</td>
<td>Tracked Objects – up to 20</td>
</tr>
<tr>
<td>380,000 effective pixels</td>
<td>Comms</td>
<td>Via data embedded on video signal</td>
</tr>
<tr>
<td>550 Horizontal TV lines</td>
<td>Connections</td>
<td>Terminal Block</td>
</tr>
<tr>
<td>&gt; 50 dB SN ratio</td>
<td>Setup/Config</td>
<td>Mouse &amp; Monitor or VRAS</td>
</tr>
<tr>
<td>1.0 lux minimum illumination</td>
<td>Processor</td>
<td>Edge2</td>
</tr>
<tr>
<td>2D/3D Noise Reduction</td>
<td><strong>Lens Heater</strong></td>
<td>Indium Tin Oxide, proportional power</td>
</tr>
<tr>
<td>Automatic white balance</td>
<td><strong>Radar</strong></td>
<td>Frequency – 24GHz (K-band)</td>
</tr>
<tr>
<td>1 Vpp (sync negative)</td>
<td>Accuracy – Speed 0 to 150 mph ± 1 mph (240 kph ± 1.5 kph)</td>
<td></td>
</tr>
<tr>
<td>12x optical zoom lens</td>
<td>Tracked objects – Up to 20</td>
<td>Detection – Across 4 lanes of traffic</td>
</tr>
<tr>
<td>f=3.7 mm (wide) to 44.4 mm (tele)</td>
<td><strong>Physical</strong></td>
<td>Weight – 10lbs (4.55 kg)</td>
</tr>
<tr>
<td><strong>Lens Heater</strong></td>
<td>Size – 14&quot;H x 15&quot;W x 17&quot;D</td>
<td>(35.6cm x 38.1 cm x 43.2 cm)</td>
</tr>
<tr>
<td>Indium Tin Oxide, proportional power</td>
<td>EPA – Less than 1.5 sq.</td>
<td>IP67 rated enclosure</td>
</tr>
<tr>
<td></td>
<td>IP67 rated enclosure</td>
<td></td>
</tr>
<tr>
<td><strong>Radar</strong></td>
<td>Operating Temp.</td>
<td>-35°F to +165°F (-37°C to +74°C)</td>
</tr>
<tr>
<td>Frequency – 24GHz (K-band)</td>
<td>Humidity</td>
<td>0 - 100% RH</td>
</tr>
<tr>
<td>Accuracy – Speed 0 to 150 mph ± 1 mph (240 kph ± 1.5 kph)</td>
<td>Vibration</td>
<td>0.5G, 3 axes, 5-30Hz</td>
</tr>
<tr>
<td>Tracked objects – Up to 20</td>
<td>Shock</td>
<td>10G in all 3 axes</td>
</tr>
<tr>
<td>Detection – Across 4 lanes of traffic</td>
<td>Regulatory</td>
<td>FCC part 15, Class A</td>
</tr>
<tr>
<td></td>
<td>Communications</td>
<td>Via data embedded on video signal</td>
</tr>
<tr>
<td></td>
<td>Warranty</td>
<td>3 years limited warranty</td>
</tr>
</tbody>
</table>

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