

Roadway Sensors

Vantage® VRacks

[A flexible and expandable rack system]

Vantage Edge®2 video detection products are designed to fit easily and seamlessly into standard detector racks such as NEMA TS-1, NEMA TS-2 Type1 and 2, and Caltrans 170/2070 input files. For video detection applications that require a separate detector rack system, Iteris offers the VRack system as a flexible and expandable shelf-mounted detector rack solution.

The VRack system can be tailored to meet a variety of application configurations. Whether you need a system for a single camera or for multiple camera configurations, the VRack system can be integrated easily into your existing traffic signal controller cabinet configuration. VRack provides an elegant and cost effective video detection solution for intersection control, ramp metering or highway monitoring applications.

VRack is offered in four basic configuration sets:

VRack 1 provides up to 4 camera inputs in a single rack system shelf-mounted solution.

VRack PS is a compact shelf-mounted power supply module solution for the VRack1 video detection system.

VRack TS1 offers a cost effective solution for TS-1 intersection control applications. A complete and compact video detection solution that includes an Edge2 four camera processing module, a 32 channel Input/Output module and power supply in a 5-slot VRack enclosure.

VRack TS2 provides a complete intersection control solution for TS-2 Type 1 traffic controller applications. This configuration includes 2x Edge2 dual input modules, the Vantage TS2-IM Bus Interface Unit (BIU) module and power supply in a 5-slot VRack enclosure.

If your needs are more, then the VRack system can be configured to include additional input and output module cards or the Access and eAccess communication module cards. Whatever your video detection requirements, VRack can be optimized and tailored to suit your specific application needs. Just tell us what you need!



Features

- NEMA TS-1 or TS-2 model type
- Can be installed into Caltrans 170/2070 systems
- Available with or without the power supply module
- Optional +24VDC input power source
- Contact closure connector on rear backplane
- Can be fixed to vertical surfaces
- VRack systems can be linked together to create make larger configurations

Installation and Configuration

The VRack system is easy to set up, install and configure since all Vantage modules are hot-swappable. VRack is a shelf-mounted rack system that includes adapter brackets should the VRack need to be mounted on vertical surfaces. Input and output connections are simplified through using the Iteris-supplied wiring harness that is pre-labeled for easy connection to the controller cabinet's contact closure wiring points.



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Benefits

- Flexible and expandable system allows for optimal configuration that helps to reduce cost while preserving room for incremental growth
- Separate module and power supply racks enable maximum use of available space in crowded or tight cabinet enclosures
- Easy set up and configuration minimizes installation time and cost
- Field-proven reliability and durability reduces maintenance and service overhead

Typical Applications

- Intersection flow control
- Ramp metering
- Traffic data collection
- Bicycle detection
- Traveler information system input
- Temporary and construction zone vehicle detection replacement
- Moving or wrong way motion detection
- Automatic Incident Detection (AID) in tunnels and on bridges

Vantage Family Products

- Machine Vision Processor modules
- Input and Output Extension modules
- Communications modules
- Video detector rack systems
- Cameras optimized for video detection applications

Technical Specifications

Power	<ul style="list-style-type: none"> ● PS1211 power supply module <ul style="list-style-type: none"> ▪ 110-240VAC auto sensing ▪ +24VDC output @1.6Amps with DC hold @50ms ● DC Input for VRack One, TS1 and TS2 <ul style="list-style-type: none"> ▪ 3-pin input block connector on rear ● DC Output for VRack 1 and PS <ul style="list-style-type: none"> ▪ 3-pin output block connector on rear ● AC Output for VRack TS1 and TS2 <ul style="list-style-type: none"> ▪ 3-pin output block to support daisy-chaining of VRack system
Detector Channel Output (Excludes VRack PS)	<ul style="list-style-type: none"> ● Multiple DB9 connector for contact closure output channels
Detector Channel Input	<ul style="list-style-type: none"> ● Multiple inputs available on rear with logic ground
VRack communication (Excludes VRack PS)	<ul style="list-style-type: none"> ● RJ45 receptacle to support communication between VRack systems
Environmental	<ul style="list-style-type: none"> ● -35°F to +165°F (-37°C to +74°C) ● 0% to 95% humidity non-condensing ● 0.5G, 3 axes, 5-30Hz vibration tested ● 10G in all 3 axes for shock testing
Mechanical	<p>NOTE: Foot brackets, if fitted increase height of detector rack by 0.6" (1.6cm)</p> <ul style="list-style-type: none"> ● VRack1 <ul style="list-style-type: none"> ▪ 5"High x 2.8"Wide x 8.27"Deep (12.7cm x 7.2cm x 21cm) ▪ 1.34lbs (0.61Kg) ● Vantage PS <ul style="list-style-type: none"> ▪ 5"High x 2.8"Wide x 8.27"Deep (12.7cm x 7.2cm x 21cm) ▪ 2.20lbs (0.99Kg) – with power supply module ▪ 1.34lbs (0.61Kg) – without power supply module ● VRackTS1 <ul style="list-style-type: none"> ▪ 5"High x 12.87"Wide x 8.27"Deep (12.7cm x 32.7cm x 21cm) ▪ 3.97lbs (1.80Kg) – with power supply module ▪ 3.13lbs (1.42Kg) – without power supply module ● VRackTS2 <ul style="list-style-type: none"> ▪ 5"High x 12.87"Wide x 8.27"Deep (12.7cm x 32.7cm x 21cm) ▪ 3.97lbs (1.80Kg) – with power supply module ▪ 3.13lbs (1.42Kg) – without power supply module
Warranty	<ul style="list-style-type: none"> ● 3 years limited warranty



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