REKKS-SPS (Smart Perimeter System)

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Maritime Mount

Smart Technology

External Vehicle Mount

Signature Series

Off-Grid

Portable

Outdoor

———————— **Head Modules**

———————— **Illumination Modules**

———————— **Intelligent Pan Modules**

———————— **Display Modules**

———————— **Panorama Modules**

———————— **Audio Modules**

———————— **Environmental Sensor Modules**

———————— **External Accessory Module with Attachments**

———————— **Network Modules**

———————— **Power Modules**

———————— **Connectivity Modules**

———————— **Base Modules**

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Description

The REKKS Smart Perimeter System, or SPS, is an advanced, independent tool. In design, the SPS adopts a completely modular format, giving the customer the power to build a completely customized surveillance and protection solution – module by module.

Beginning with the base, several mounting options are available, which range from permanent outdoor in-ground or indoor surface mounts to portable bases designed for complete mobility. Atop the selected base module a system can be built with almost limitless possibilities. As each module is compactly built and designed to operate independently, an SPS can include as few (or as many) modules as needed.

Each system is available in either aluminum or carbon fiber housing. To aid in environment integration, system longevity and component performance, the SPS is offered with pixelated camouflage or customized color patterns upon request.

Applicable Industries

- Banking and Treasuries
- Bases and Compound Development
- City Planning and Infrastructures
- Construction
- Homeland Security
- Law Enforcement
- Meteorology
- Perimeter Protection
- Tactical Operations

Certifications

ONVIF Comformant	CE Certified	FCC Certified	UL Certified
WiFi Certified	IP 67+ IP Rating	IK 10 IK Rating	

System Features

SD HD Standard & High Definition	EMCCD	Thermal Imaging Camera	Area Illuminator	IR Short Range Night Vision
Long Range Night Vision	360° Panorama	Ballistic Resistant	Audio / Alarm Broadcast	Hazmat Detection
Traffic Management	Server and Networking	Universal Data Adapter	Modular Freedom	Off Grid Compatible
Lightweight	Ruggedized	Portable Control Room	24 Hour Power Management	3rd Party Integration

Housing and Mounts

Indoor	Outdoor	Portable	Smart Perimeter System Mount	Wall Mount
Ceiling Mount	Maritime Mount			

Materials and Finish

Aluminum	Carbon Fiber	Camouflage	Housing Color	Glass Color

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Head Modules

The BUMA

The BUMA
Heavy Duty

The BUMA Modular

Streetlight Module

Platform Module

Module Features

- SD / HD
- UHD
- EMCCD
- Thermal
- Optical Fiber
- DIS
- PTZ
- External Optics
- 3rd Party Integration
- Area Illumination
- Traffic Management
- Renwable Energy Compatible

Highlighted Applications

- Bases, Outposts and Checkpoints
- Conflict Zones
- Construction Sites and Pipelines
- Energy Infrastructures and Drill Sites
- Existing System Integration
- Long Range Surveillance
- Off-Grid Traffic Control
- Perimeter Protection
- Public Event Management

Description

Each of our Signature Series cameras is designed to integrate seamlessly into the SPS, providing advanced imaging capabilities in all lighting conditions. In addition to visual surveillance, the SPS can be topped with traffic management systems such as basic traffic signals, a platform for flat surface needs or 3rd party integration, or a streetlight for area illumination. Each system can only accommodate one head module. However, multiple systems can be incorporated to meet additional project requirements.

Illumination Modules

Spotlight Illumination
Module

Laser Illumination
Module

Module Features

- Short Range Night Vision
- Long Range Night Vision
- Area Illumination

Description

The SPS has several illumination options to provide optimal picture quality in all lighting conditions. A Spotlight Module provides highly efficient LEDs for directional ground illumination - a priceless security asset. Long, medium, and short range directional IR illumination provides optimal lighting for day and night surveillance. To further enhance nighttime surveillance capabilities, we also offer a Laser Pole Module. The laser illuminator provides powerful and targeted long-range night vision capabilities. For low-light applications, power to the illuminator is activated by a built-in light sensor.

Intelligent Pan Modules

Classic Pan
Module

Heavy Duty Pan
Module

Module Features

- Continuous 360° Pan

Description

A motorized pan module enables continuous 360-degree rotation when paired with any of our other Smart Perimeter System modules for complete field surveillance. The Classic Pan model is ideal for pairing with single or double module movement. We offer a pan module with a high-powered motor for pairing with three or more modules. With the weight load of additional modules, the more powerful Heavy Duty Pan can assure smooth, sustained, and continuous 360-degree movement.

Highlighted Applications

- Bases, Outposts and Checkpoints
- Governmental Facilities
- Long Distance Illumination
- Nighttime Surveillance
- Perimeter Protection
- Remote and Undeveloped Areas

REKS-SPS (Smart Perimeter System)

Display Modules

Single Port Module

Mutiport Module

Module Features

- ÚHD Display
- HD Display
- Visual Display
- Lightweight
- Renwable Energy Compatible

Highlighted Applications

- Air and Sea Ports
- Alerts and Public Service Announcements
- Building Facility Signage
- Commercial Displays
- Event Management
- Traffic Construction and Flow Management

Description

Moving beyond passive surveillance, the SPS can be a valuable information center and message delivery system with several different display module options. For indoor or close parameter use, traditional or UHD LCD Color Displays can be used to display meeting and event schedule updates, in airports for the latest departure and arrival information, and to communicate emergency messages and alerts.

For outdoor use or in traffic management, large LED Color Display Modules can show traffic alert messages or be used to guide event traffic. When incorporating unique or other 3rd party media displays, standardized single or multiport output modules are available.

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Panorama Modules

Panorama Camera
Module

Panorama IR
Module

Panorama
Spotlight Module

Panorama Sound
Module

Module Features

- ÚHD Camera
- Short Range Night Vision
- Long Range Night Vision
- Continuous 360° Pan
- Audio Broadcast

Highlighted Applications

- Bases, Outposts and Checkpoints
- Border and Port Facilities
- Construction Sites and Pipelines
- Event Management
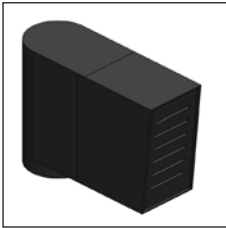- Nighttime Surveillance
- Off-Grid Surveillance

Description

Panorama modules offer complete 360-degree surveillance and illumination for comprehensive area coverage. The Panorama Camera Module offers a 360-degree, 4k picture to provide continuous, generalized field monitoring and comprehensive visual surveillance. For nighttime or low-light applications, the panorama module design is available with infrared (IR), which can be activated by built-in light sensors or run continuously. To provide approach awareness, a Motion Detection Module is capable of directional or complete 360-degree motion detection. Using advanced passive IR (PIR) sensors, movement can be detected from any direction and the module can be programmed with automatic response actions. The sensors feature anti-masking protection and low false-alarm rates from weather or animal interference.
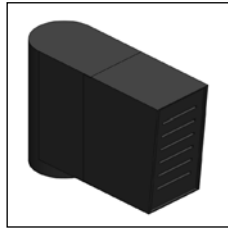
In addition to visual surveillance, a Panorama Spotlight Module is equipped with spotlights for multi-directional ground illumination. For non-targeted ambient sound monitoring, the Panorama Sound Module uses omnidirectional microphones, providing the command center essential field auditory information.

For optimum coverage, the panorama modules can be paired with one of our Signature Series camera heads. When motion or an event of interest is detected by one of the panorama modules, the advanced Signature Series camera can manually or automatically be directed to focus on the area in question for more in-depth investigation.

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Audio Modules

Audio Broadcasting
Module

Directional Microphone
Module

Audio Port
Module

Module Features

- Audio Broadcasting
- Audio Recording

Highlighted Applications

- Bases, Outposts and Checkpoints
- Governmental Facilities
- Long Distance Illumination
- Nighttime Surveillance
- Perimeter Protection
- Remote and Undeveloped Areas

Description

Sound modules give the command center two way communication capabilities in even the most remote locations. The Speaker Module provides a way to remotely deliver announcements to the surveillance field, and can also be used to deliver sirens or alerts to notify bystanders of impending threats or dangers. In addition to sound output capabilities, a directional microphone with zoom capabilities allows for localized and focused sound recording. The microphone can be placed above a pan module for pairing with visual surveillance and movement in response to environmental conditions. For portable applications or use with 3rd party audio equipment, the Audio Port Module provides an XLR and audio port. Equipment can be connected directly to the module's audio port for seamless integration into the SPS and network.

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Environmental Sensor Modules

Weather Module

Environment Module

Hazardous Materials Module

Extreme Environment Module

Features

- Temperature Monitoring Forecasting
- Ambient Environment Monitoring
- Hazardous Gas Protection
- Radiation Detection
- Climate Stabilization

Highlighted Applications

- Bases, Outposts and Checkpoints
- Border and Port Facilities
- Construction Sites and Pipelines
- Energy Infrastructures and Drill Sites
- Extreme Environments
- Meteorological Monitoring
- Off-Grid Surveillance
- Remote and Undeveloped Areas

Description

Several module options enable complete environmental readings, providing the command center with a more complete gauge of surrounding conditions. Without sacrificing personnel safety, the Hazardous Materials Module also enables continuous and remote access to readings that indicate the presence of hazardous materials.

The rugged and simplistic design of the SPS makes it an ideal solution for even the most extreme environments. Heating and cooling modules inside the Extreme Environments Module protects against great temperature differentials and helps to moderate internal operating temperatures for optimal component performance. For a complete picture of conditions surrounding the system, the Weather Station Module offers up-to-the-minute readings for ambient temperature, wind speed, humidity, barometric pressure, precipitation levels and forecasts.

Especially valuable in construction, drilling, and industrial zones, a Hazardous Materials Module can monitor air quality and the presence of potentially hazardous materials by measuring carbon monoxide, carbon dioxide, natural gases, and sulfur levels. An included radiation sensor can be used to measure and/or monitor alpha, beta and gamma radiation levels in areas of known exposure as well as in a precautionary capacity to alert the command center to the presence of harmful radiation levels.

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External Accessory Module and Attachments

External Attachment Module
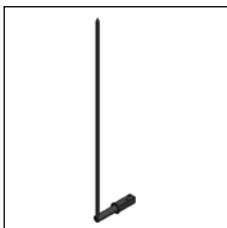

50cm Attachment

150cm Attachment

High Height Attachment
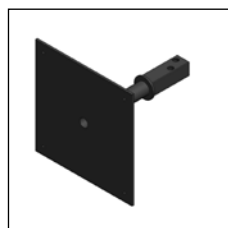

Motorized Movement Attachment

Security Barrier Attachment

Lightning Protection Attachment

Platform Attachment

Display Attachment

Attachment Features

- Solar Panel Compatible
- Microwave Antenna Compatible
- Area Antenna Compatible
- Display Mount Compatible
- 3rd Party Integration
- Lightning Protection
- Anti-Climb Barrier
- Height Stability Control
- Automatic Sun Tracking

Highlighted Applications

- Border Monitoring and Patrol
- Energy Infrastructures and Drill Sites
- Long Range Surveillance
- Off-Grid Surveillance
- Perimeter Protection
- Public Event Management

Description

The External Attachment Module, a multifunctional attachment module, acts as a base mount, expanding the capabilities of the SPS and allowing for seamless integration of external and 3rd party modules. External power and data functionality are incorporated through the addition of either a 50 cm or 150 cm Attachment for solar panel integration and easy attachment of 3rd party communication devices. In an effort to accommodate future technological offerings or advanced customer requirements, a Platform Attachment offers a generic universal base for easy integration of 3rd party components.

When paired with the Display Attachment, most 3rd party visual displays, such as color LCD, color LED, or Ultra High Definition color displays can turn the SPS into a valuable information center and message delivery system. For indoor use the screens can be used to display meeting and event schedule updates, in airports for the latest departure and arrival information and to communicate emergency messages and alerts. When used outdoors, the screens can show traffic alert messages or be used to guide event traffic.

For mid-pole mobility, a Motorized Movement Attachment functions as an independent pan module, providing complete 360-degree pan rotation for a specific external or 3rd party module without affecting movement through the remainder of the SPS. As an added measure of protection from threats, external tampering or vandalism, or electrical shocks we offer both a Security Barrier Attachment and a Lightning Protection Attachment. To maintain stability for systems that exceed a height of 6 meters we require a High Height Attachment be included in the system, which protects the SPS from vertical sway or movement.

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Network Modules

Server
Module

NAS
Module

2 TB NVR
Module

Hub
Module

Range Extender
Module

Module Features

- Decentralized Control Room
- Portable Control Room Infrastructure
- Independent Network Operation
- Cloud Based Security
- Closed Circuit Network
- Surveillance Backup and Archiving
- Universal Power Adapter

Highlighted Applications

- Border Monitoring and Patrol
- Energy Infrastructures and Drill Sites
- Existing System Integration
- Long Range Surveillance
- Off-Grid Surveillance
- Public Event Management

Description

Capitalizing on its modular design, the SPS can fully integrate complete control room functionality, making it the first independently contained, cloud-based security system, complete with range extenders for long distance or remote applications.

The Server Module has adopted all the functionalities of a modern-day command center server and integrated them directly into the pole, removing the requirement for an off-site command center. Contained within the pole, the Hub Module aids in network management by streamlining wired networks and cabling and managing data flow. A Network Attached Storage (NAS) Module provides a simple hard drive mount and creates local data storage within the pole for a complement to the integrated functionality of the Server Module. For pole systems that include video surveillance, a 2 TB Network Video Recorder (NVR) Module can be included to provide integrated video recording and playback capabilities

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Power Modules

Power Storage Module

Surge Arrestor Module

Module Features

- Solar Panel Compatible
- Lightning Protection
- Off-Grid Power Solutions
- Internal Battery
- 24 Hour Power Management
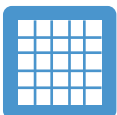- Hybrid Power Solutions

Description

The SPS incorporates advanced power management and storage modules for system operation in almost any environment setting, and is compatible with a wide range of external power sources.

The Power Storage Module operates as an integrated battery supplying power to other SPS modules and serving as a back-up power source for off-grid power solutions such as wind or solar. Multiple modules may be included in a single system, with each Power Storage Module providing up to 12 hours of power. The batteries contained inside are rechargeable, require minimal maintenance, and have a lifespan of 3-5 years.

To protect the electronics of each component, a Surge Arrestor can be added to the SPS. The Surge Arrestor regulates electric current and prevents any irregular surges or spikes in voltage from reaching the internal electronics and causing damage to the system.

Through the SPS Power Modules, the system is designed to be compatible with traditional grid power, renewable energy sources and even a hybrid combination of both. When project requirements call for the SPS to be integrated into an existing infrastructure or power grid, it can be connected directly. To meet the demands of remote, undeveloped or off-grid applications, or as a backup to traditional power sources, solar panels and wind turbines can be integrated externally. In addition, the SPS can be powered by fuel generators for mobile applications or backup power.

Compatible External Power Sources

Solar Panels

Wind Turbine

Fuel Generator

Grid Power

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Connectivity Modules

Power and Data
Module

Power and Fiber
Module

Module Features

- Power Management
- Data Management
- Attachment Management
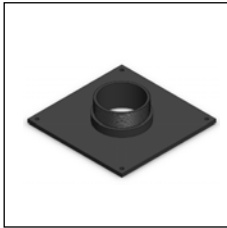- Cable Management

Highlighted Applications

- Bases, Outposts and Checkpoints
- Governmental Facilities
- Long Distance Illumination
- Nighttime Surveillance
- Perimeter Protection
- Remote and Undeveloped Areas

Description

As central command modules, the Power and Data and Power and Fiber Modules work in tandem with the Power Storage Module for power and data input and management. The Modules act as an attachment base for external power and data attachments, as well as a management center for incoming data and communication cables.

For maximum flexibility, the Modules are compatible with most power and data sources and integrate directly into the SPS. The modules offer connectivity to traditional wired data networks, WiFi, microwave and free-space optical communication.
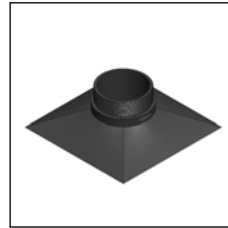
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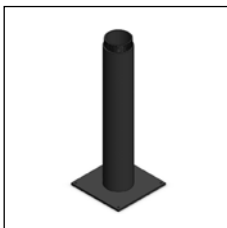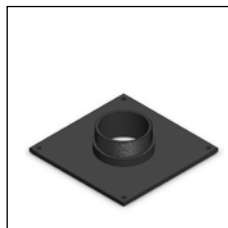m_PAC

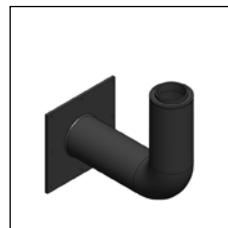## Base Modules

Surface Plate Base

In-Ground Base

Portable Base

Maritime Mount

External Vehicle Mount

Wall Mount

Module Features

- Easy Installation
- Light Weight
- Corrosion Resistant Materials
- Flexible Mounting Solutions
- Portable Security
- Mobile Security

Highlighted Applications

- Air and Sea Ports
- Bases, Outposts and Checkpoints
- Border Monitoring and Patrol
- Energy Infrastructures and Drill Sites
- Maritime Surveillance
- Mobile Security
- Public Event Management
- Traffic Construction and Flow Management

Description

The SPS is available with several different base and mounting options for optimal system integration. The Surface Plate Mount attaches directly to the floor surface and is designed for system mounting in indoor applications. The Wall Mount provides a secondary option for indoor system applications. By providing indoor mounts for the SPS, the surveillance system capabilities can be applied to an expanded range of applications, even integrating directly into existing infrastructures. For outdoor use, an In-Ground Base Module secures the SPS firmly into the ground for stable, fixed installation and serves as entry point for incoming communication and power cables.

For non-fixed applications, the SPS is compatible with our Portable Base Module. The portable base features a hollow design that can be weighted at the installation site, minimizing ground installation and civil works requirements. For use with heavy duty and tactical vehicles, the External Vehicle Mount provides a way to attach the pole system directly to the vehicle for a truly mobile surveillance system. The Maritime Mount is designed to provide comprehensive monitoring and surveillance to commercial and cargo vessels while at sea. As protection, the housing is available in marine grade aluminum or treated carbon fiber and can be further protected in our marine camouflage for low-profile integration.