# PLANET
**Networking & Communication**

# Application Guide

Delivering a variety of efficient networking applications

# Hotels & Resorts

**Comprehensive networking equipment to satisfy customer comfort and management efficiency**

PLANET hotels and resorts application provides a comprehensive collection of products to satisfy the comfort and security of guests and at the same time makes operation and management efficient. A wide range of devices including management switch, IP-PBX, IP phone, wireless AP controller, indoor and outdoor APs, SIP broadcasting system and SIP door intercom are reliable to ensure high-quality data, voice and power communications for the whole hospitality industry.

## Network Infrastructures

### Vehicle 4G LTE Cellular Wireless Gateway
**VCG-1500WG-LTE**

- One SIM slot and one 4G LTE antenna for network connection
- Supports Wi-Fi 802.11 b/g/n for mobile client connectivity
- GPS antenna allows to detect the location via sat nav system
- Supports CMS for remote management
- Supports GRE, PPTP, IPSec and L2TP

### 24-Port 802.3bt PoE + 4-Port 10G LCD Switch
**GS-5220-24UP4XVR**

- 10/100/1000BASE-T with 24 802.3bt PoE ports
- Four 1G/10G SFP+ ports
- 400-/600-watt PoE budget
- Up to 95 watts PoE output
- R model supports 100~240V AC/48~60V DC redundant power

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## Wireless

### 750Mbps 802.11ac In-wall Wireless AP with USB Charger
**WDAP-W750E**

- Dual-Band with speeds up to 750Mbps
- IEEE 802.3af/at Power over Ethernet standard
- Access Point, Gateway, Repeater, WDS (AP/Bridge/Station)
- 8 SSID (4 SSID for 2.4G, 4 SSID for 5G), Max 128 Access Users
- Support 802.1Q VLAN and PLANET AP controller
- USB charger port for charging most of mobile devices easily

### Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

- Simultaneous dual-band connectivity in 2.4GHz (300Mbps) and 5GHz (867Mbps)
- Gigabit Ethernet ports, 802.3at PoE/PD supported
- 802.1Q VLAN mapping multiple SSIDs
- AP router, universal repeater, WISP mode
- Centrally managed by PLANET WAPC series and software-based AP controller

### Wireless AP Controller (1000APs)
**WAPC-1000**

- AP auto-discovery
- Control up to 1024/APs
- Central provisioning and cluster management
- Easy deployment with map positioning
- Real-time AP status monitoring
- Built-in RADIUS server seamlessly integrated into the enterprise network
- Profile creation and maintenance

BC Best Choice AWARD

## Surveillance

### H.265 1080p IR Bullet/Dome PoE IP Camera
**ICA-4250**

- 3.6mm lens with 74 degrees angle view
- Maximum resolution 1920 x 1080 (30fps)
- 25-meter IR LEDs with ICR
- WDR, 2DNR, IP66
- Cable management

### H.265 1080p IR Bullet/Dome PoE IP Camera
**ICA-3250**

- 3.6mm lens with 74 degrees angle view
- Maximum resolution 1920 x 1080 (30fps)
- 20-meter IR LEDs with ICR
- WDR, 2DNR, IP66

### H.265 16-ch 5-in-1 Hybrid Digital Video Recorder
**HDVR-1635**

- 5 in 1 –TVI, CVI, AHD, CVBS and IP Full HD video input
- 1080P encoding for analog mode
- H.265 high profile video compression
- HDMI and VGA output at 1920 x 1080 resolution
- ONVIF compliant for interoperability
- CMS and mobile app for remote monitoring

## Voice Communications

### High Definition Color PoE IP Phone
**VIP-1120PT**

- 2.4-inch color LCD monitor
- 2-line key with color LED
- 2 SIP identities
- Wideband G.722 HD audio
- IEEE 802.3at/af PoE compliant
- QoS, TR069, auto-provisioning and multi-language

### IP65 720p SIP Door Intercom w/RFID
**HDP-5240PT**

- 720p HD camera with viewing angle: 110°, 95°
- Wideband G.722 HD audio
- Trouble-free installation
- IP65 for eaves environment
- -20 to 60 degrees C operating temperature
- Unlock the door with an RFID, remote DTMF or local password

### 7-inch Indoor Touch Screen PoE Video Intercom
**VTS-700P**

- Stylish 7-inch touch screen IP intercom
- Power over Ethernet IEEE 802.3af/at
- Hands-free two-way video Intercom; unlock door from the intercom
- Up to 3 scenes managed via PLANET Z-Wave Plus™ Gateway
- 8-zone alarm interface available for security control (DI x 6 + DO x 2)
- Standard SIP compatible with most modern IP Intercom systems
- Real-time image monitoring of home and community public cameras

## Outdoor Facility

H.265 1080p IR Bullet/
Dome PoE IP Camera
**ICA-3250**

## Guestrooms

HD Color PoE IP Phone
**VIP-1120PT**

## Office

750Mbps 802.11ac In-wall
Wireless AP with USB Charger
**WDAP-W750E**

## Corridor

Dual Band Ceiling-mount
Wi-Fi AP
**WNAP-C3220E**

## Control Room

24-Port 802.3bt PoE +
4-Port 10G LCD Switch
**GS-5220-24UP4XVR**

Wireless AP Controller
(1000APs)
**WAPC-1000**

H.265 16-ch 5-in-1 Hybrid
Digital Video Recorder
**HDVR-1635**

Internet Telephony PBX
System
**IPX-2500**

7-inch Indoor Touch Screen
PoE Video Intercom
**VTS-700P**

Enterprise-class Universal
Network Management
Controller
**NMS-500**

## Hotel Lobby

H.265 1080p IR Bullet/
Dome PoE IP Camera
**ICA-4250**

Dual Band 1200Mbps
Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

IP65 720p SIP Door
Intercom w/RFID
**HDP-5240PT**

Vehicle 4G LTE Cellular
Wireless Gateway
**VCG-1500WG-LTE**

## Entrance

## Shuttle Bus

# Digital Campus

**Efficient management and extension of campus network capacity, mobility and security**

As technology advances rapidly these days, how to create an efficient and reliable network application became an important issue for campus and educational network deployment. PLANET campus network solution offers a highly-integrated series of products ranging from wireless LAN, network backbone switches, network security, IP Surveillance to VoIP products that are closely interconnected to ensure the mobility to access the internet from anywhere, the security of the wired and the wireless connections and the efficiency of campus IoT structure.

## Network Infrastructures

### 24-port 802.3bt PoE + 4-port 10G LCD Switch
**GS-5220-24UP4XV**

- 10/100/1000BASE-T with 802.3bt Utra PoE port x 24
- 1G/10G SFP+ port x 4
- 400-/600-watt PoE budget
- Up to 95 watts PoE output
- R model supports 100~240V AC/48~60V DC redundant power

### Layer 3 12-port 10G SFP+ Fiber Switch
**XGS-6350-12X8TR**

- 1G/10G SFP+ port x 12
- 10/100/1000BASE-T port x 8
- Dual 100~240V AC redundant power

### 24-port 1000X+4-10G Stack Switch
**SGS-6341-16S8C4XR**

- 10/1000BASE-X SFP port x 24
- 10/100/1000BASE-T port x 8 shared with Port-21 to Port-24
- 10GBASE-X SFP+ port x 4
- 100~240V AC and 36-72V DC redundant power system
- Smart fan design for silent operation

## Wireless

### Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

- Simultaneous dual-band connectivity in 2.4GHz 300Mbps and 5GHz 867Mbps
- Gigabit Ethernet ports, 802.3at PoE/PD supported
- 802.1Q VLAN mapping to multiple SSIDs
- AP router, universal repeater, WISP mode
- Centrally managed by PLANET WAPC series and Software AP Controller

### IP68 Dual Band 1200Mbps Wi-Fi AP
**WDAP-802AC**

- Gigabit wire and 1200Mbps wireless connectivity (dual-band)
- 4 built-in N-type (F) antenna connectors
- 802.1Q VLAN mapping to multiple SSIDs
- Ground terminal design, IP68 rating
- 802.3at Power over Ethernet
- Centrally managed by PLANET WAPC series and Software AP Controller

### Wirless AP Controller
**WAPC-500**

- AP auto-discovery
- Control up to 512/APs
- Central provisioning and cluster management
- Easy deployment with map positioning
- Real-time AP status monitoring
- Built-in RADIUS server seamlessly integrated into the enterprise network
- Profile creation and maintenance

## Surveillance

### H.265 4MP PoE Bullet IR IP Camera with Vari-focal Lens
**ICA-3460V**

- 2.8~12 mm vari-focal with wide angle surveillance
- Simultaneous H.264 and H.265 video compression
- Max. resolution of 4 mega-pixel (2592 x 1520 pixel)
- Compliant with IEEE 802.3af/at PoE interface
- up to 30~45 meter IR LEDs with ICR/WDR
- IP66, ONVIF, PLANET DDNS & Easy DDNS

### Media Converter Chassis/10G Converter
**MC-1500R/XT-705A**

- Hot-swappable Feature on each Slot
- FT-80x/FT-90x/GT-80x/GT-90x compatible
- 10/19-inch Rack mountable
- AC/DC Hot-swappable Redundant Power

## Voice Communications

### 7-inch SIP Conferencing Phone
**ICF-1800**

- Built-in Android 4.2 OS multimedia conferencing phone
- 7-inch TFT color multi touch screen
- 6 identities/accounts
- Wideband G.722 HD audio with handset and hands-free features
- Dual 10/100/1000 Gigabit Ethernet
- Titable 2 megapixel CMOS camera, HDMI, micro SD

### 720p SIP Multi-unit Apartment Vandalproof Door Phone with RFID and PoE
**HDP-5260PT**

- 720p camera has high-performance HD video
- G.722 coding produces clearer HD voice quality
- IP65 and IK10 enclosure
- Supports the most popular and compatible standard SIP protocol
- Supports video intercom, door phone and single device paging
- Access control by IP phone, DTMF code and RFID card

### SIP IP Phone w/Color Screen
**VIP-2140PT**

- 2.8-inch main color LCD monitor
- 2.4-inch (DSS) key-mapping LCD monitor
- 4 identities/accounts with color LED
- 30 configurable and 6 multicolored LED keys
- Wideband G.722 HD audio with handset and hands-free features
- Dual 10/100/1000 Gigabit Ethernet

## Library / Student Center

48-port+4-port10G Stack Switch
**SGS-6341-48T4X**

24-port PoE+4-10G Stack Switch
**SGS-6341-24P4X**

SIP IP Phone w/Color Screen
**VIP-2140PT**

IP67 5GHZ 300Mbps Wi-Fi AP
**WAP-552N**

Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

## Academic Classroom

Layer 3 24-port SFP+4-port 10G Stack Switch
**XGS3-24242**

Media Converter Chassis
**MC-1500R**

Layer 3 12-port 10G SFP+ Fiber Switch
**XGS-6350-12X8TR**

Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

## Outdoor Facility

Renewable Energy PoE Switch
**BSP-360**

IP55 5GHz 300Mbps Wi-Fi CPE
**WBS-502N**

IP68 Dual Band 1200Mbps Wi-Fi AP
**WDAP-802AC**

H.265 4MP PoE Bullet IR IP Camera with Vari-focal Lens
**ICA-3460V**

## Gym

Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

IP67 5GHZ 300Mbps Wi-Fi AP
**WAP-552N**

24-port 1000X+4-10G Stack Switch
**SGS-6341-16S8C4XR**

## Administration Office Building

24-port PoE+4-port 10G LCD Switch
**GS-5220-24UP4XV**

Wirless AP Controller
**WAPC-500**

Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

7-inch SIP Conferencing Phone
**ICF-1800**

720p SIP Multi-unit Apartment Vandalproof Door Phone with RFID and PoE
**HDP-5260PT**

# Smart Buildings for Enterprises & More

**Facilitating smart networking system with PLANET enterprise application**

To make a network of smart buildings a reality, PLANET enterprise applications provide closely controlled security within your networking system, and at the same time, they make the digital network design efficient and cost-effective. PLANET provides data centers of office buildings, banks, etc. with specially-designed color touch LCD Ethernet switches, large-scale wireless LAN controllers, network video recorders and security gateways. By utilizing our latest Network Management System (UNI-NMS,) demands for fast and safe digital transmission through the IP deployments including VoIP system, IP surveillance and wireless LAN can be centrally managed and easily controlled to ensure optimal capability and performance.

## Control Center

### Universal Network Management System
**UNI-NMS**

- Detect a maximum of 100,000 nodes
- Up to 200 sites, 200 floor maps, 500 nodes per area
- Easy to keep track of the status of each device
- Display of the topology of network devices
- Any fault found can be made known
- Real-time signal coverage of APs

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## Meeting Room

### HD Touch Screen Android Multimedia Conferencing Phone
**ICF-1800**

- Built-in Android 4.2 OS multimedia conferencing phone
- 7-inch TFT color multi touch screen
- 6 identities/accounts
- Wideband G.722 HD audio with handset and hands-free
- Dual 10/100/1000 Gigabit Ethernet
- Tillable 2 megapixel CMOS camera, HDMI, micro SD

## Work Space

### 2.4GHz 300Mbps Wi-Fi AP
**WNAP-C3220E**

- 10/100BASE-TX port, 802.3af PoE/PD supported
- 802.1Q VLAN mapping of multiple SSIDs
- Access Point, Gateway, Repeater, WDS (AP/Bridge/Station) modes
- Centrally managed by PLANET WAPC series and Software AP Controller, UNI-NMS

### In-Wall 2.4GHz 300Mbps Wi-Fi AP
**WNAP-W2200UE**

- 10/100BASE-TX ports, with one 802.3af PoE/PD port supported
- 802.1Q VLAN mapping of multiple SSIDs
- Access Point, Gateway, Repeater, WDS (AP/Bridge/Station) modes
- In-wall design with USB charger port
- Centrally managed by PLANET WAPC series and Software AP Controller, UNI-NMS

### SIP IP Phone w/Color Screen
**VIP-2140PT**

- 2.8-inch main color LCD monitor
- 2.4-inch (DSS) key-mapping LCD monitor
- 4 identities/accounts with color LED
- 30 configurable and 6 multicolored LED keys
- Wideband G.722 HD audio with handset and hands-free speaker
- Dual 10/100/1000 Gigabit Ethernet

## Entrance

### H.265 1080p IR Bullet/Dome PoE IP Camera
**ICA-3250/ICA-4250**

- 3.6mm lens with 74 degrees angle view
- Maximum resolution 1920 x 1080 (30fps)
- 20-meter IR LEDs with ICR
- WDR, 2DNR, IP66

### Internet Telephony PBX System
**IPX-2200**

- 60 concurrent calls and up to 200 registers
- 36 concurrent calls and up to 40 conference rooms
- Recording/Voicemail up to 1,500 hours
- 2 slots for maximum 8 ports for FXO/GSM
- 10/100/1000 Gigabit Ethernet

## Data Center

### Layer 3 Chassis Routing Switch
**XGS3-42000R**

- 160-port 10/100/1000BASE-T copper
- 156 1000BASE-SX/LX SFP fiber slots
- 60 10G XFP fiber slots
- 6 40G QSFP+ fiber slots
- 19-inch, 6U rack-mount

### 24-port PoE + 4-port 10G LCD Switch
**GS-5220-24P4XV**

- 10/100/1000BASE-T with 802.3at PoE+ port x 24
- 1G/10G SFP+ port x 4
- 400-/600-watt PoE budget
- Up to 36 watts per PoE port
- R model supports 100~240V AC/48~60V DC redundant power

### Security Gateway
**CS-950**

- Control up to 50 APs
- User authentication and MAC ACL
- Customized captive portal
- Unified security gateway with VPN connectivity
- Advanced anti-virus and anti-spam services
- IDP service and content filtering

### Wireless AP Controller - 500APs
**WAPC-500**

- AP auto-discovery
- Control up to 512 APs
- Central provisioning and cluster management
- Easy deployment with map positioning
- Real-time AP status monitoring
- Profile creation and maintenance

*BC AWARD*

## Control Center

Universal Network
Management System
**UNI-NMS**

## Meeting Room

HD Touch Screen Android
Multimedia Conferencing
Phone
**ICF-1800**

## Work Space

2.4GHz 300Mbps
Wi-Fi AP
**WNAP-C3220E**

In-Wall 2.4GHz
300Mbps Wi-Fi AP
**WNAP-W2200UE**

SIP IP Phone w/
Color Screen
**VIP-2140PT**

## Data Center

Layer 3 Chassis Routing
Switch
**XGS3-42000R**

Wireless AP Controller -
500APs
**WAPC-500**

Security Gateway
**CS-950**

24-port PoE + 4-port
10G LCD Switch
**GS-5220-24P4XV**

Internet Telephony
PBX System
**IPX-2200**

## Entrance

H.265 1080p IR Bullet/
Dome PoE IP Camera
**ICA-3250/ICA-4250**

# Factory Automation

## Designed for reliable, secure and smart industrial network Infrastructures

PLANET factory automation application is one of its many Industrial Ethernet Solutions that provide highly-reliable and smart solutions to ensure continuous and efficient operation for the IIoT environment. The Industrial Ethernet upgrades traditional, proprietary factory floor networks to a low-cost, high-performance, and scalable architecture. PLANET provides a complete product portfolio that is compliant with major IE protocols such as Modbus TCP, EtherCAT, and EN50155 for information level, control level, and device level in the Industrial Ethernet network.

## M2M Station

### Flat-type 4-port PoE LCD Router
**WGR-500-4PV**

- 2.4-inch color LCD touch screen with management functions
- 4-port 10/100/1000BASE-T with 802.3at PoE+
- 802.1Q VLAN and IGMP proxy
- PoE management
- IPv6 Support for IoT Networking
- Secure Firewall Protection

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### Industrial 4-port RS232/ RS422/ RS485 Media Converter
**ICS-2400T**

- 4 RS232/422/485 port to 10/100BASE-TX
- IP30 metal case protection
- -40 to 75 degrees C operating temperature
- TCP Server/Client, UDP Client, Virtual COM, Telnet Server, Pair Connection Remote/Local Modes
- 12 to 48V DC, redundant power with polarity reverse protect function

### Dual Band 1200Mbps Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

- Simultaneous dual-band connectivity in 2.4GHz 300Mbps and 5GHz 867Mbps
- Gigabit Ethernet ports for 802.3at PoE PDs
- 802.1Q VLAN mapping of multiple SSIDs
- AP router, universal repeater, WISP mode
- Centrally managed by PLANET WAPC series and Software AP Controller

### Industrial 4-port PoE ++ Switch
**IGS-5225-4UP1T2S**

- 4-port 10/100/1000BASE-T with 802.3bt/802.3at PoE
- 1-port 10/100/1000BASE-T
- 2-port 100/1000BASE-X SFP
- IPv6/IPv4 Web, Telnet and SNMP management
- 802.1Q VLAN, MSTP and IGMP snooping
- ERPS ring supported
- Static route supported
- -40 to 75 degrees C wide operating temperature
- DI and DO supported

### Industrial 1-port Modbus Gateway
**IMG-110T**

- 1 RS422/RS485 port
- Built-in IP-based Web interface and Telnet interface for remote management
- RTU Master, RTU Slave, ASCII Master, and ASCII Slave operation modes
- 9-48V DC power input
- -40 to 75 degrees C operating temperature
- IP40 metal case

### 2 Mega-pixel IR PoE Plus Speed Dome IP Camera with Extended Support
**ICA-E6260**

- Built-in microSD card slot for on-board storage
- 33x optical zooming, endless pan and tilt
- Maximum of 60fps at 1080p
- Weatherproof (IP67), vandalproof (IK09)
- Superior low light sensitivity
- WDR enhancement, 3D noise reduction
- Built-in PTZ auto tracking and enhanced intelligent video application

### Enterprise-class Universal Network Management Controller with Touch LCD
**NMS-1000V**

- Auto discovery of up to 1024 devices via web interface
- Central provisioning and remotely control over each managed device by Wizard
- A topology view of network devices by LLDP protocol
- The status of a network can be reported via system event and syslog

## Production Line

### 16-ch EtherCAT Slave I/O Module
**IECS-1116-DI**

- Built-in isolated 16 digital inputs
- 2 x RJ45 bus interface
- LED indicators for the input status
- Removable terminal block connector
- Distance between stations up to 100m (100BASE-TX)
- EtherCAT conformance test tool verified

### 16-ch EtherCAT Slave I/O Module
**IECS-1116-DO**

- Built-in isolated 16 digital outputs
- 2 x RJ45 bus interface
- LED indicators for the input status
- Removable terminal block connector
- Distance between stations up to 100m (100BASE-TX)
- EtherCAT conformance test tool verified

## Storage/Warehouse

### 64-ch Network Video Recorder
**NVR-E6480**

- Manages up to 64 cameras
- 8-bay rackmount (2U) with software RAID (0,1)
- Instant playback in live view window
- Location-based management with eMap
- Supports dual stream management
- Remote access via mobile app, Web browser or CMS

### Industrial 16-port PoE Switch
**IGS-20160HPT**

- 16-port 10/100/1000T with PoE+ plus 2-port 10/100/1000T + 2-port 10/100X SFP
- IPv6/IPv4 Web, Telnet and SNMP management
- 802.1Q VLAN, MSTP and IGMP snooping
- ERPS ring supported
- Static route supported
- -40 to 75 degrees C wide operating temperature
- DI and DO supported

### IP68/IK10 5MP Fisheye E-series Camera
**ICA-E8550**

- 1.19mm fisheye lens for 180° and 360° panoramic wide angle view
- Built-in IR illuminators, effective up to 15 meters
- Vandalproof (IK10) and weatherproof (IP68)
- EN50155 compliance for professional
- ePTZ for data efficiency
- ICR, WDR and 3D noise reduction
- Mobile surveillance

## M2M Station

Dual Band 1200Mbps
Ceiling-mount Wi-Fi AP
**WDAP-C7200E**

IP68/IK10 5MP Fisheye
E-series Camera
**ICA-E8550**

Industrial 4-port PoE ++
Switch
**IGS-5225-4UP1T2S**

Industrial 4-port
Serial Server
**ICS-2400T**

Industrial 1-port
Modbus Gateway
**IMG-110T**

Flat-type 4-port PoE
LCD Router
**WGR-500-4PV**

Touch LCD Universal
Network Management
Controller
**NMS-1000V**

## Storage/Warehouse

2 Mega-pixel IR PoE Plus
Speed Dome IP Camera
with Extended Support
**ICA-E6265**

64-ch Network Video
Recorder
**NVR-E6480**

Industrial 16-port PoE
Switch
**IGS-20160HPT**

## Production Line

16-ch EtherCAT Slave
I/O Module
**IECS-1116-DO**

16-ch EtherCAT Slave
I/O Module
**IECS-1116-DI**

# Intelligent Transportation System

**Innovative transportation network with comprehensive IP solutions**

PLANET covers a wide range of Intelligent Transportation System (ITS) applications for the railway, metro system and highway networking deployments. As all of these ITS network interfaces require long distance, high-bandwidth and real-time data transmission, PLANET's comprehensive product line provides robust, reliable and secure solutions to ensure uninterrupted high-quality transmission. Featuring ITU-T under G.8032 Recommendation, it provides sub-50ms protection and recovery switching for Ethernet traffic in a ring topology and at the same time ensures that there are no loops formed at the Ethernet layer.

## Metro System

### Platform/On the Train

#### 4-port PoE + 2-port TP Switch
**IGS-5226-4P2T**

- IP50 metal case
- IEEE 1588 and synchronous Ethernet network timing
- IPv6/IPv4 Layer 3 static routing and route summarization
- 144-watt PoE budget, remote PoE power control
- 48~56V DC redundant power design
- ERPS Ring Data Recovery time < 50ms
- -40 to 75 degrees C wide operating temperature

#### EN50155 4G LTE/GPS/Wi-Fi Gateway
**VCG-1500WG-LTE**

- 4 10/100TX LAN ports and 1 10/100TX WAN port
- One SIM slot and one 4G LTE antenna for network connection
- Supports Wi-Fi 802.11 b/g/n for mobile client connectivity
- GPS antenna allows to detect the location via sat nav system
- Supports NAT, DMZ, MAC/Application/IP filter and static routing
- Supports CMS and SNMP for remote management

#### 5 Mega-pixel Outdoor IR PoE Fisheye IP Camera with Extended Support
**ICA-E8550**

- 1.19mm fisheye lens for 180° and 360° panoramic wide angle view
- ePTZ for data efficiency
- ICR, WDR and 3D noise reduction
- Built-in IR illuminators, effective up to 15 meters
- Built-in microSD card slot for on-board storage
- Vandalproof (IK10) and weatherproof (IP68)
- EN50155 compliance for professional mobile surveillance

### Gate

#### Industrial 1-/2-port RS422/485 Modbus Gateway
**IMG-120T**

- 2 RS422/RS485 ports
- Built-in IP-based Web interface and Telnet interface for remote management
- RTU Master, RTU Slave, ASCII Master, and ASCII Slave operation modes
- 9-48V DC power input
- -40 to 75 degrees C operating temperature
- IP40 metal case

### Ticket Booth

#### Industrial 2-port RS232/RS422/RS485 Media Converter
**ICS-2200T**

- 2 RS232/422/485 ports to 10/100 BASE-TX
- TCP Server/Client, UDP Client, Virtual COM, Telnet Server, Pair Connection-remote/local modes
- 12~48VDC, redundant power with polarity reverse protection function
- -40 to 75 degrees C operating temperature
- IP 30 metal case

### Control Center

#### Industrial 4-port PoE ++ Switch
**IGS-5225-4UP1T2S**

- 4-port 10/100/1000BASE-T with 802.3bt/802.3at PoE
- 1-port 10/100/1000BASE-T
- 2-port 100/1000BASE-X SFP
- IPv6/IPv4 Web, Telnet and SNMP management
- 802.1Q VLAN, MSTP and IGMP snooping
- ERPS ring supported
- Static route supported
- -40 to 75 degrees C wide operating temperature
- DI and DO supported

#### Enterprise-class Universal Network Management Controller
**NMS-500**

- Auto discovery of up to 512 devices via web interface
- Central provisioning and remotely control over each managed device
- A topology view of network devices by LLDP protocol
- The status of a network can be reported via system event and syslog
- SMTP alarm for managed devices in real-time status
- Built-in PLANET AP controller ( SAPC ) and RADIUS authentication function

## Highway

### Highway

#### Industrial 4-port LRP Extender
**LRP-104CET**

- 1-port BNC with passive PoE PD
- 4-port 10/100TX RJ45 with IEEE 802.3at
- PoE+ PSE to remote PoE IP camera/AP
- -20 ~ 70 degrees C operating temperature

#### 2 Mega-pixel IR PoE Plus Speed Dome IP Camera with Extended Support
**ICA-E6265**

- 36x optical zooming, endless pan & tilt
- Max. frame rate 60fps at 1080p
- Long distance adaptive IR LEDs
- Superior low light sensitivity
- WDR enhancement , 3D noise reduction
- Water-repellent and scratch-resistant lens glass
- Built-in PTZ auto tracking and enhanced intelligent video application

### Bus

#### Industrial 4G LTE Cellular Wireless Gateway with 5-Port 10/100/1000T
**ICG-2510WG-LTE**

- Dual module SIM for network load balancing and redundancy
- IEEE 802.11b/g/n/ac dual-band for mobile client connectivity
- GPS antenna allows to detect the location via sat nav system
- 2 DI/DO and 1 serial port for Modbus
- Multiple VPN with IPSEC, OpenVPN, PPTP, L2TP, GRE
- Full security with Firewall and IP/MAC/Port filtering
- Supports CMS for remote management
- -35 to 70 degrees C operating temperature and fanless design

### Electric Box

#### 8-port LRP Managed Switch
**LRP-822CS**

- 8 100Mbps BNC female ports with LRP Inject funtion
- 2 10/100/1000 BASE-T Gigabit RJ45 copper ports
- 2 100/1000 BASE-X mini-GBIC/SFP slots
- Supports PoE power up to 36W for each PoE port
- 802.1Q VLAN, MSTP and 1GMP Snooping
- IPv6/IPv4 ACL, QoS supported

### Control Center

#### Industrial Flat-type PoE Switch
**WGS-5225-8P2SV**

- 2.4-inch color LCD touch screen with management functions
- 8-port 10/100/1000BASE-T with 802.3at PoE+
- 2-port 100/1000BASE-X SFP
- 802.1Q VLAN, MSTP and IGMP Snooping
- ERPS ring and IEEE 1588 supported
- Modbus TCP

**Gate**

Industrial 1-/2-port RS422/
485 Modbus Gateway
**IMG-120T**

**Ticket Booth**

Industrial 2-port RS232/
RS422/RS485 Media
Converter
**ICS-2200T**

**Control Center**

Industrial 4-port PoE ++
Switch
**IGS-5225-4UP1T2S**

Universal Network
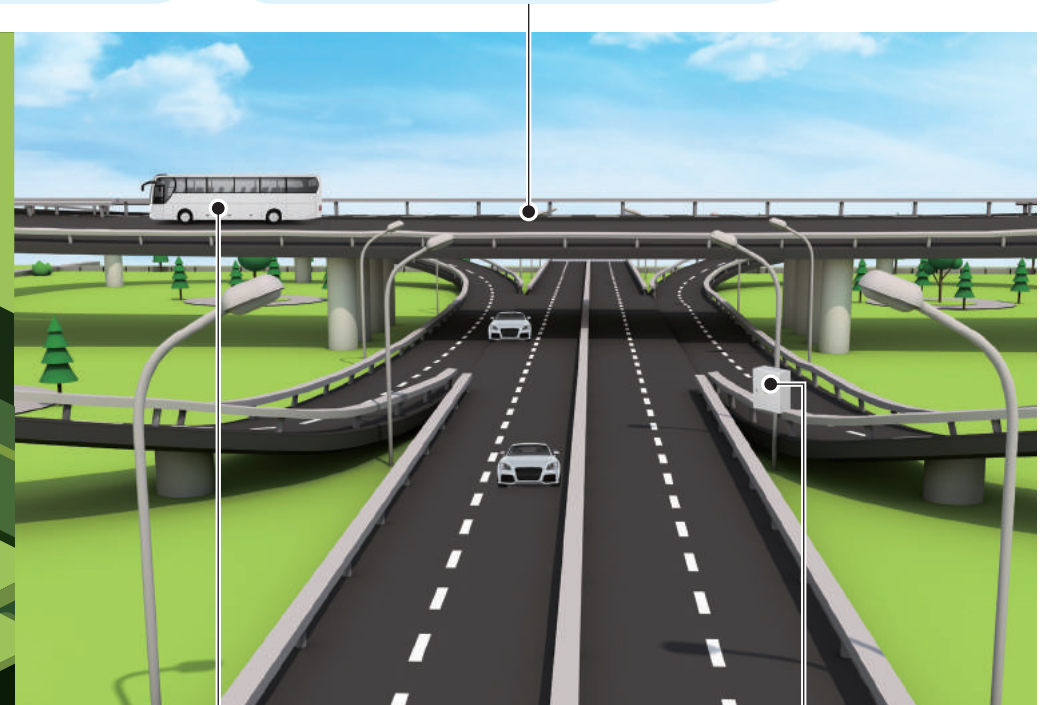Management Controller
**NMS-500**

**Highway**

Industrial 4-port LRP
Extender
**LRP-104CET**

2 Mega-pixel IR PoE Plus
Speed Dome IP Camera
**ICA-E6265**

**Platform/On the Train**

5 Mega-pixel Outdoor IR
PoE Fisheye IP Camera
with Extended Support
**ICA-E8550**

4-port PoE + 2-port TP
Switch
**IGS-5226-4P2T**

EN50155 4G LTE/GPS/
Wi-Fi Gateway
**VCG-1500WG-LTE**

**Bus**

Industrial 4G LTE/GPS
Gateway
**ICG-2510WG-LTE**

**Control Center**

Industrial Flat-type
PoE Switch
**WGS-5225-8P2SV**

**Electric Box**

8-port LRP Managed
Switch
**LRP-822CS**

**PLANET**
Networking & Communication