

# Industrial 5-Port 10/100/1000T + 802.11ax Wi-Fi VPN Security Gateway



## Powerful Wi-Fi 6 Industrial VPN Security Solution

PLANET has launched the IVR-300W 802.11ax Wi-Fi VPN Security Gateway for demanding applications. It features five Ethernet ports (4 LANs and 1 WAN), **IEEE 11ax Wi-Fi** capability, serial port (**RS485**), and DI and DO interfaces. Incorporating **SD-WAN** function, it can greatly increase WAN optimization for multiple WAN links to be managed. Furthermore, its **Dual-WAN Failover** and **Outbound Load Balance** features can improve the network efficiency while the web-based interface provides friendly and user experience.

It's ideal for the harsh environment as it can operate stably at temperatures from **-40 to 75 degrees C**. Its compact IP30 metal case allows either DIN-rail or wall mounting for efficient use of cabinet space.



## Wireless 11ax Brings Excellent Data Link Speed

The IVR-300W is designed with high power amplifier and 2 highly-sensitive antennas which provide stronger signal and excellent coverage even in the wide-ranging or bad environment. With adjustable transmit power option, the administrator can flexibly reduce or increase the output power for various environments, thus reducing interference to achieve maximum performance. Equipped with the next-generation Wi-Fi 6 (802.11ax) wireless network standard, the total bandwidth reaches 1800Mbps, and the 2-stream

## Highlights

- Complies with IEEE 802.11ax and IEEE 802.11a/b/g/n/ac standards
- Dual-WAN function
- 1 USB 3.0 port for system configuration backup and firmware upgrade
- 2 x DI/DO and 1 serial port (RS485) for Modbus applications
- SSL VPN and robust hybrid VPN (IPSec/PPTP/L2TP over IPSec)
- Stateful packet inspection (SPI) firewall and content filtering
- Blocks DoS/DDOS attack, port range forwarding
- High Availability, AP Controller, Captive Portal and RADIUS
- Planet NMS controller system and CloudViewer app supported
- -45 to 75 degrees C operating temperature; DIN-rail and fanless designs

## Hardware

- **4 x 10/100/1000BASE-T** RJ45 LAN ports, auto-negotiation, auto MDI/MDI-X
- **1 x 10/100/1000BASE-T** RJ45 WAN port, auto-negotiation, auto MDI/MDI-X
- **1 x** 3-pin terminal block (RS485)
- **1 x** reset button
- **1 x** USB 3.0 port

## RF Interface Characteristics

- Features 2.4GHz (802.11b/g/n/ax) and 5GHz (802.11a/n/ac/ax) dual band for carrying high load traffic
- 2T2R MIMO technology for enhanced throughput and coverage
- Provides multiple adjustable transmit power control
- High speed up to 1.8Gbps (600Mbps for 2.4GHz or 1200Mbps for 5GHz) wireless data rate

## IP Routing Feature

- Static Route
- Dynamic Route
- OSPF

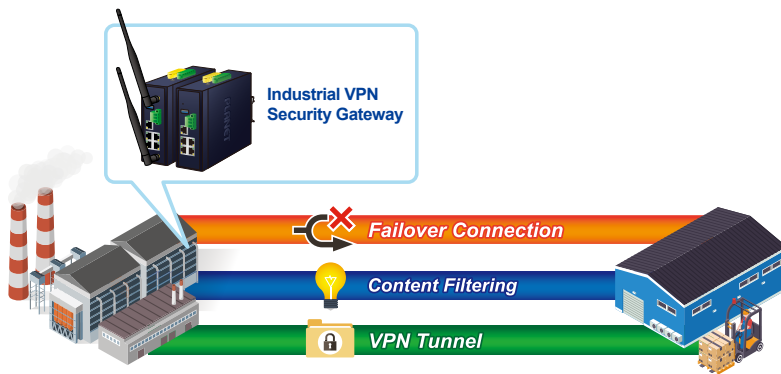
## Firewall Security

- Cybersecurity
- Stateful Packet Inspection (SPI) firewall
- Blocks DoS/DDoS attack

transmission technology improves the transmission efficiency of multiple devices, making AR/VR/IoT applications smoother. The IEEE 802.11ax also optimizes MU-MIMO (Multi-User MIMO) mechanism to serve multiple devices simultaneously.

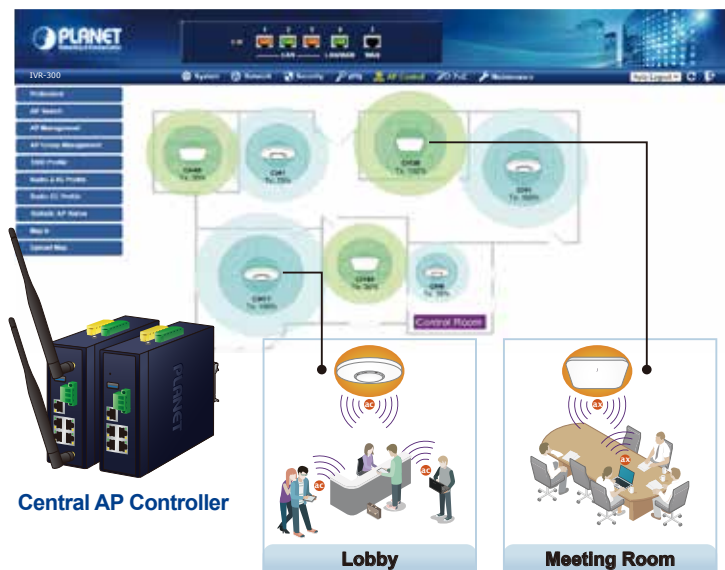
**Ideal VPN Security Gateway Solution for Factories and Transportations**

The IVR-300W provides complete data security and privacy for accessing and exchanging the most sensitive data, built-in IPSec VPN function with DES/3DES/AES encryption and MD5/SHA-1/SHA-256/SHA-384/SHA-512 authentication, and GRE, SSL, PPTP and L2TP server mechanism. The full VPN capability in the IVR-300W makes the connection secure, more flexible, and more capable.



**Centralized Remote Control of Managed APs**

The IVR-300W provides centralized management of PLANET Smart AP series via a user-friendly Web GUI. It's easy to configure AP for the wireless SSID, radio band and security settings. With a four-step configuration process, wireless profiles for different purposes can be simultaneously delivered to multiple APs or AP groups to minimize deployment time, effort and cost.



- Content Filtering
- MAC Filtering and IP Filtering
- NAT ALGs (Application Layer Gateway)
- Blocks SYN/ICMP Flooding

**VPN Features**

- IPSec/Remote Server (Net-to-Net, Host-to-Net), GRE, PPTP Server, L2TP Server, SSL Server/Client (Open VPN)
- Max. Connection Tunnel Entries: 60 VPN tunnels,
- Encryption methods: DES, 3DES, AES, AES-128/192/256
- Authentication methods: MD5, SHA-1, SHA-256, SHA-384, SHA-512

**Networking**

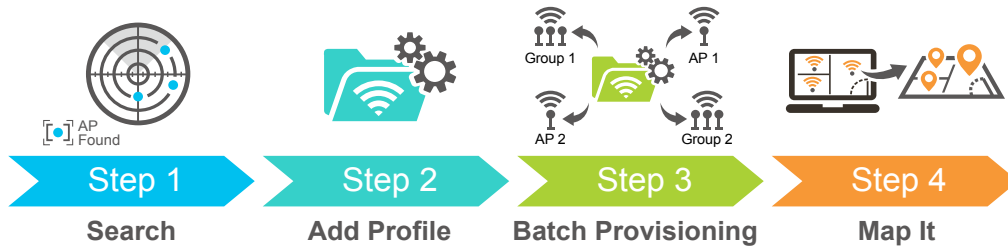
- Outbound load balancing for Ethernet WANs
- Auto-failover between Ethernet WANs network
- High Availability
- Captive Portal
- RADIUS Server
- Static IP/PPPoE/DHCP client for WAN
- DHCP server/NTP client for LAN
- Protocols: TCP/IP, UDP, ARP, IPv4, IPv6
- Port forwarding, QoS, DMZ, IGMP, UPnP, SNMPv1,v2c, v3
- MAC address clone
- DDNS: PLANET DDNS, Easy DDNS, DynDNS and No-IP

**Others**

- Setup wizard
- Dashboard for real-time system overview
- Support for HTTP or HTTPS
- Auto reboot
- PLANET NMS System and Smart Discovery Utility for deployment management
- PLANET CloudViewer app for real-time monitoring
- Configuration backup and restoration via remote/USB port
- Firmware upgrade via remote/USB port

For example, to configure multiple smart APs of the same model, the IVR-300W allows clustering them to a managed group for unified management. According to requirements, wireless APs can be flexibly expanded or removed from a wireless AP group at any time. The AP cluster benefits bulk provision and bulk firmware upgrade through single entry point instead of having to configure settings in each of them separately.

## Simplified Cluster Management with 4 Steps



### Wi-Fi Deployments and Authentication with Simplified Management

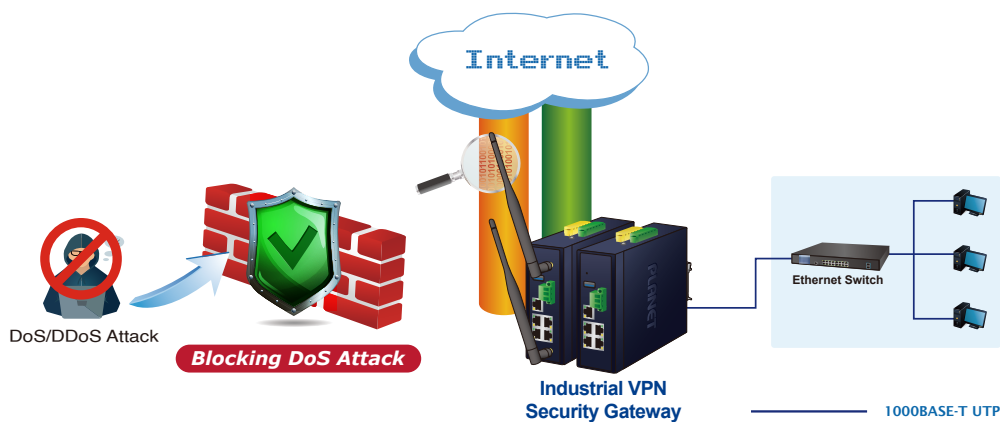
The IVR-300W also provides a built-in AP Controller, Captive Portal, RADIUS and a DHCP server to facilitate small and medium businesses to deploy secure employee and guest access services without any additional server. The IVR-300W can offer a secure Wi-Fi network with easy installation for your business.

## Captive Portal



### Excellent Ability in Threat Defense

The IVR-300W has built-in SPI (stateful packet inspection) firewall and DoS/DDoS attack mitigation functions to provide high efficiency and extensive protection for your network. Thus, virtual server and DMZ functions can let you set up servers in the Intranet and still provide services to the Internet users.



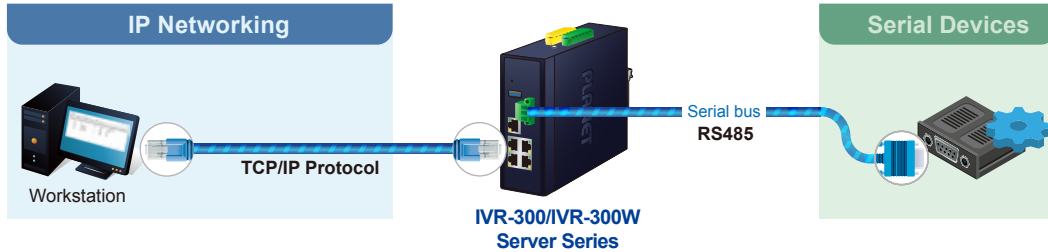
### Cybersecurity Network Solution to Minimize Security Risks

The cybersecurity feature included to protect the switch management in a mission-critical network virtually needs no effort and cost to install. For efficient management, the IVR-300W is equipped with HTTPS web and SNMP management interfaces. With the built-in web-based management interface, the IVR-300W offers an easy-to-use, platform independent management and configuration facility. The IVR-300W supports SNMP and it can be managed via any management software based on the standard SNMP protocol.

*Cost-effective Solution for RS485 to Ethernet Application*

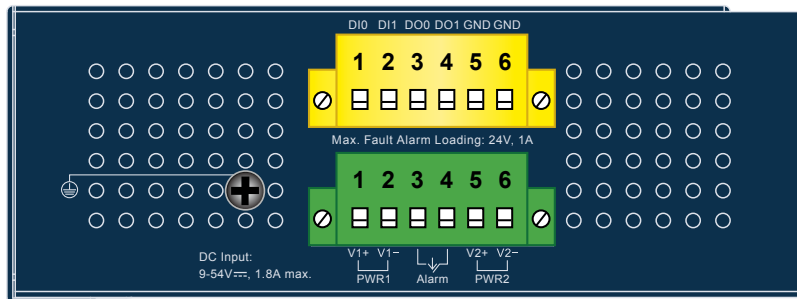
The IVR-300W provides a feature that can convert the Serial RS485 communication to IP networking. Ethernet signal allows two types of segments to connect easily, efficiently and inexpensively. The solution helps users and SIs save expenses as there is no need to replace the existing serial equipment and software system.

**Convert Serial Communication to IP Networking**



*Convenient and Reliable Redundant Power System*

To facilitate transportation and industrial-level applications, the IVR-300W provides an integrated power solution with a wide range of voltages (9~54V DC) for worldwide operability. It also provides dual-redundant, reversible polarity 9~54V DC power supply inputs for high availability applications.

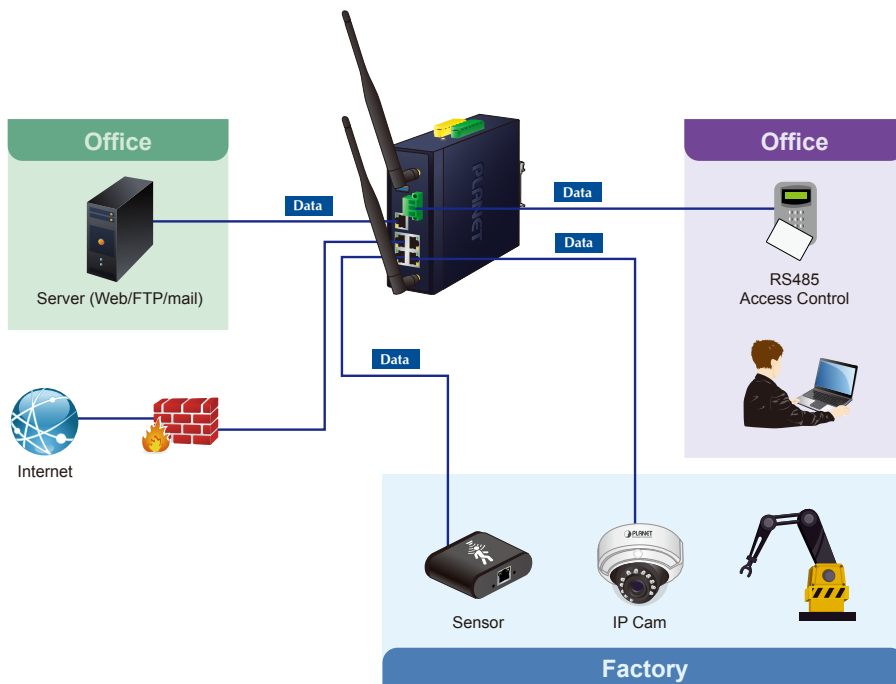


**Applications**

*Ideal VPN Security Gateway*

PLANET IVR-300W can work as a VPN security gateway in an industrial application for a company that has a factory and many different divisions. With IPSec/GRE/PPTP/L2TP/SSL VPN solutions, the IVR-300W installed at the headquarters provides branches, vendors, and mobile workers with secure data communication no matter how long the distance would be.

The IVR-300W connects dual WANs with up to two different ISPs. It creates a stable and qualified VPN connection for many important applications such as VoIP, video conferencing and data transmission.

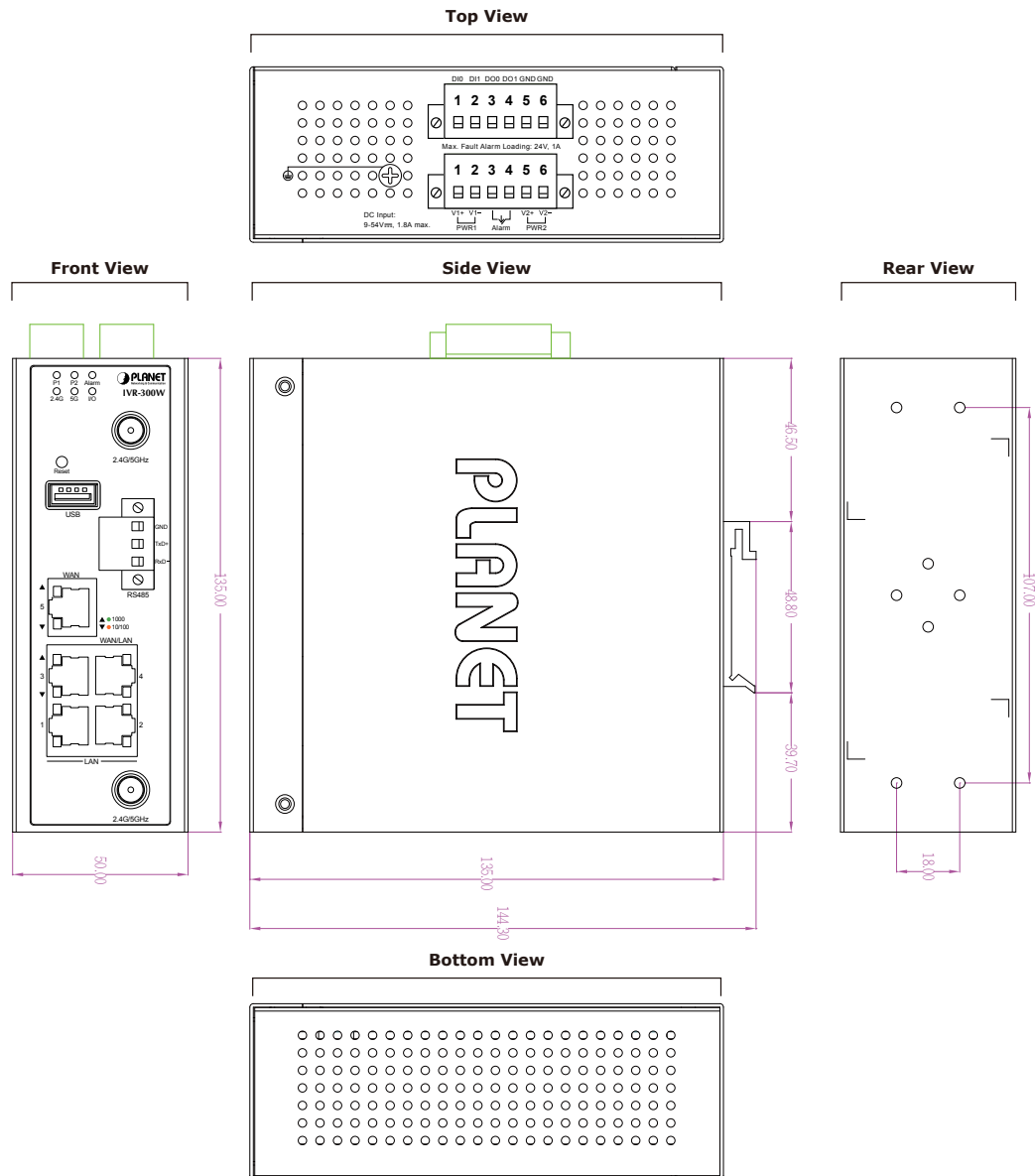


## Specifications

Product	IVR-300W	
<b>Hardware Specifications</b>		
Copper Ports	5 10/100/1000BASE-T RJ45 Ethernet ports including 3 LAN ports (Ports 1 to 3) 1 LAN/WAN port (Port 4) 1 WAN port (Port 5)	
Serial Interface	1 x 3-pin terminal block for RS485	
USB Port	1 USB 3.0 port	
DI & DO Interfaces	2 Digital Input (DI): Level 0: -24V~2.1V (±0.1V) Level 1: 2.1V~24V (±0.1V) Input Load to 24V DC, 10mA max.  2 Digital Output (DO): Open collector to 24V DC, 100mA max.	
Connector	Removable 6-pin terminal block for power input Pin 1/2 for Power 1, Pin 3/4 for fault alarm, Pin 5/6 for Power 2	
Reset Button	< 5 sec: System reboot > 5 sec: Factory default	
Enclosure	IP30 metal case	
Installation	DIN-rail, desktop, wall-mounting	
LED Indicators	System: P1 (Green) P2 (Green) Alarm (Red) I/O (Red)  Ethernet Interfaces (Ports 1-4 and WAN Port): 1000 LNK/ACT (Green) 10/100 LNK/ACT (Amber)  Wi-Fi: 2.4G (Green) 5G (Green)	
Dimensions (W x D x H)	50 x 135 x 135 mm	
Weight	773g	
Power Requirements – DC	9~54V DC, 1.8A	
Power Consumption	Max. 3.8 watts/12.95 BTU (No Loading) Max.15.6 watts/53.19 BTU (Full loading)	
<b>Wireless</b>		
Standard	IEEE 802.11a/n/ac/ax 5GHz IEEE 802.11g/b/n/ax 2.4GHz	
Band Mode	2.4G & 5G concurrent mode	
Antenna	5 dBi external antennas with SMA connectors for Wi-Fi	
Frequency Range	2.4GHz	America FCC: 2.412~2.462GHz Europe ETSI: 2.412GHz~2.472GHz
	5GHz	5.15GHz ~5.875GHz
Operating Channels	2.4GHz	America FCC: 1~11 Europe ETSI: 1~13
	5GHz	America FCC: Non-DFS: 36, 40, 44, 48, 149,153,157,161,165 DFS: 52, 56, 60, 64, 100, 104, 108, 112, 116, 132, 136, 140  Europe ETSI: Non-DFS: 36, 40, 44, 48 DFS: 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140  5GHz channel list may vary in different countries according to their regulations.
Channel Width	20MHz, 40MHz, 80MHz	
Data Transmission Rates	Transmit: 600 Mbps* for 2.4 GHz and 1200 Mbps* for 5 GHz Receive: 600 Mbps* for 2.4 GHz and 1200 Mbps* for 5 GHz  <b>*The estimated transmission distance is based on the theory. The actual distance may vary in different environments.</b>	

Transmission Power	<p>11b: 23dbm+/- 1.5dbm @11Mbps          11g: 20dbm+/- 1.5dbm @54Mbps          11g/n: 20dBm +/- 1.5dbm @MCS7, HT20          17dBm@MCS7,HT40          11a: 19.5dBm +/- 1.5dbm @54Mbps          11a/n: 19.5dBm+/- 1.5dbm @MCS7, HT20          17dBm@MCS7, HT40          11ac HT20: 20+/-1.5dBm @MCS8          11ac HT40: 17+/-1.5dBm @MCS9          11ac HT80: 14.5+/-1.5dBm @MCS9          11ax HT20: 20+/-1.5dBm @MCS9          11ax HT40: 17 +/- 1.5dBm @MCS9          11ax HT80: 14.5 +/- 1.5dBm @MCS11</p>
Encryption Security	<p>WEP (64/128-bit) encryption security          WPA / WPA2 (TKIP/AES)          WPA-PSK / WPA2-PSK (TKIP/AES) / WPA3-PSK (TKIP/AES)          802.1x Authenticator</p>
Wireless Advanced	<p>Wi-Fi Multimedia (WMM)          Auto channel selection          Wireless output power management          MAC address filtering</p>
<b>Advanced Functions</b>	
VPN	<p>IPSec/Remote Server (Net-to-Net, Host-to-Net)          GRE          PPTP Server          L2TP Server          SSL Server/Client (Open VPN)</p>
VPN Tunnels	Max. 60
VPN Throughput	Max. 108Mbps
Encryption Methods	DES, 3DES, AES or AES-128/192/256 encrypting
Authentication Methods	MD5/SHA-1/SHA-256/SHA-384/SHA-512 authentication algorithm
<b>Management</b>	
Basic Management Interfaces	<p>Web browser          SNMP v1, v2c          PLANET Smart Discovery utility and NMS controller supported</p>
Secure Management Interfaces	TLSv1.2, SNMP v3
System Log	System Event Log
Others	<p>Setup wizard          Dashboard          System status/service          Statistics          Connection status          Auto reboot          Diagnostics</p>
<b>Standards Conformance</b>	
Regulatory Compliance	CE, FCC
<b>Environment</b>	
Operating	<p>Temperature: -40 ~ 75 degrees C          Relative humidity: 5 ~ 90% (non-condensing)</p>
Storage	<p>Temperature: -40 ~ 85 degrees C          Relative humidity: 5 ~ 90% (non-condensing)</p>

## Dimensions



## Ordering Information

IVR-300W Industrial 5-Port 10/100/1000T + 802.11ax Wi-Fi VPN Security Gateway

## Related Products

ICG-2515-NR	Industrial 5G NR Cellular Gateway with 5-Port 10/100/1000T
IVR-100	Industrial 5-Port 10/100/1000T VPN Security Gateway
ICG-2510WG-LTE	Industrial 4G LTE Cellular Wireless Gateway with 5-Port 10/100/1000T
VCG-1500WG-LTE	Vehicle 4G LTE Cellular Wireless Gateway with 5-Port 10/100TX
WGR-500-4PV	Industrial Wall-mount Gigabit Router with 4-Port 802.3at PoE+ and LCD Touch Screen
WGR-500-4P	Industrial Wall-mount Gigabit Router with 4-Port 802.3at PoE+
WGR-500	Industrial 5-Port 10/100/1000T Wall-mount Gigabit Router

### PLANET Technology Corporation

11F., No.96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C.)

Tel: 886-2-2219-9518

Email: sales@planet.com.tw

Fax: 886-2-2219-9528

www.planet.com.tw



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