2.4GHz 300Mbps 802.11n Outdoor Wireless AP

Rugged and Durable Outdoor Wi-Fi Solution

PLANET WAP-252N 802.11n Outdoor Wireless AP comes with the IP67-rated aluminum case, enormously protected from dust and water immersion. It adopts the mature technology of IEEE 802.11n 2T2R standard with maximum connectivity and 300Mbps performance in 2.4GHz frequency band. By connecting high-gain antenna through the flexible N-type connectors, it is easy to achieve various outdoor long-distance applications and capable to adapt to any rough environment.

PoE Function

For the maximum adaptability and stability in the rugged environment, the WAP-252N not only comes with IP67-rated aluminum die-cast housing, but also adopts the enterprise-level Qualcomm kernel, capable of withstanding wide temperature ranging from -40 to 70 degrees C. With the IEEE 802.3af/at PoE, the WAP-252N can be easily installed in the areas where power outlets are not available. Furthermore, it is also suitable to be integrated with PLANET Solar Power PoE System to offer wireless services even in the suburbs.

Industrial Wireless LAN and LAN

• Compliant with the IEEE 802.11b/g/n wireless technology
• 2T2R architecture with data rate of up to 300Mbps
• Equipped with 10/100Mbps RJ45 port, auto MDI/MDI-X supported

Fixed-network Broadband Router

• Supported WAN connection types: DHCP, Static IP, PPPoE
• Supports Port Forwarding and DMZ for various networking applications
• Supports DHCP server in Gateway/WISP mode

RF Interface Characteristics

• Two built-in N-type connectors
• High output power with multiply-adjustable transmit power control

Outdoor Environmental Characteristics

• IP67-rated sturdy aluminum case
• IEEE 802.3af/at Power over Ethernet design
• Operating temperature: -40~70 degrees C

Multiple Operation Modes and Wireless Features

• Multiple operation modes: AP, Gateway, Repeater, WDS, WISP
• WMM (Wi-Fi multimedia) provides higher priority to multimedia transmitting over wireless
• Coverage threshold to limit the weak signal of clients occupying session
• Real-time Wi-Fi channel analysis chart and client limit control for better performance

Secure Network Connection

• Full encryption supported: 64-/128-bit WEP, WPA/WPA2, WPA-PSK/WPA2-PSK and 802.1X RADIUS authentication
• Supports 802.1Q VLAN and SSID-to-VLAN mapping
• Supports IP/Port/MAC address/URL filtering, DoS, SPI Firewall
• Supports DMZ and Port Forwarding
• Bandwidth control per IP address to increase network stability

Easy Deployment and Management

• Supports PLANET AP Controllers in AP mode
• Easy discovery by PLANET Smart Discovery
• Self-healing mechanism through system auto reboot setting
• System status monitoring through remote Syslog Server
• Supports PLANET DDNS/ Easy DDNS
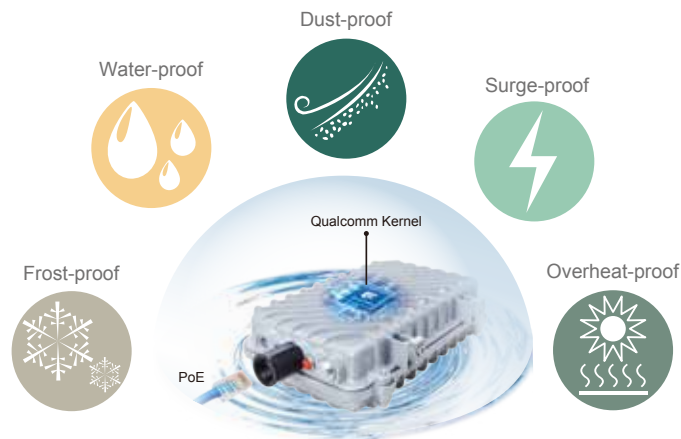
Environmental Adaptations in Outdoor Area

*Designed for Heavy Data Transmission Traffic*

With larger memory capacity and faster CPU clock speed, the WAP-252N is capable of withstanding high frequency of user access and heavy data transmission traffic in the densely-populated area. To have a suitable coverage threshold, the product can flexibly control the client access, efficiently limit unreachable clients and retain bandwidth for authorized users. To provide maximum performance, the WAP-252N can implement up to 8 operation modes where a multitude of applications can be had for communities, warehouses, campuses, harbors, etc.

## Efficient Client Control

Multiple SSIDs with VLAN Tagging

As for security, the WAP-252N supports WPA/WPA2, and the 802.1X RADIUS authentication to secure the wireless connection. Besides, the supported IEEE 802.1Q VLAN allows multiple VLAN tags to be mapped to multiple SSIDs to distinguish the wireless access. This makes it possible for the WAP-252N to work with managed Ethernet switches to have VLANs assigned to a different access level and authority.
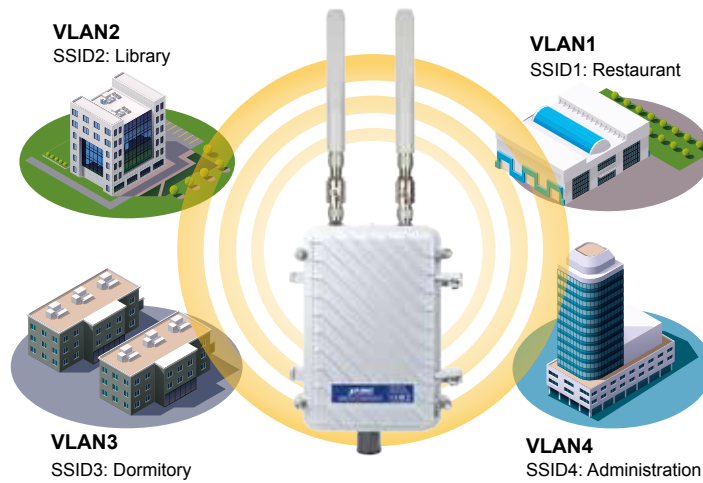
Multi-SSIDs + VLANs

Optimized Efficiency in AP Management

The brand-new GUI configuration wizard helps the system administrator easily set up the WAP-252N step by step. Besides, the built-in Wi-Fi analyzer provides real-time channel utilization to prevent channel overlapping to assure greater performance. With the automatic transmission power mechanism, distance control and scheduling reboot setting, the WAP-252N is easier for the administrator to deploy and manage without on-site maintenance. Moreover, you can simply install PLANET AP controller software, SAPC (Smart AP Control), to deliver wireless profiles to multiple APs simultaneously, thus making the central management simple.
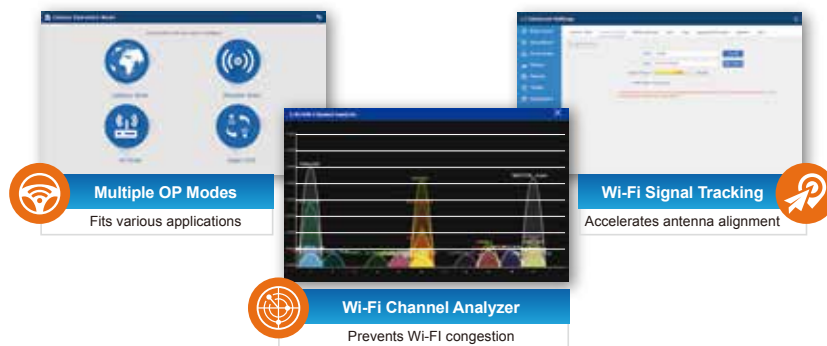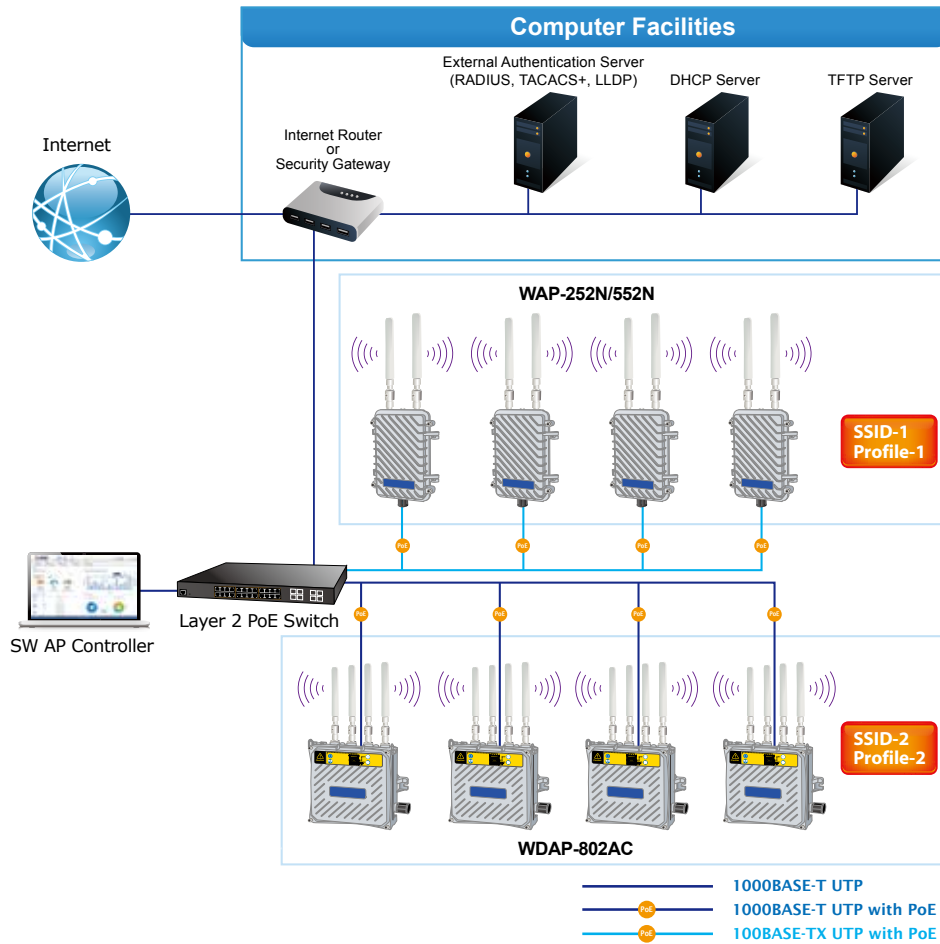

Applications

Flexible Hardware and Software Characteristics for Various Applications

With a specific antenna connected through the built-in N-type connectors and eight operation modes, the WAP-252N greatly benefits the system integrator as a multitude of applications can be had for communities, warehouses, campuses, harbors, etc. Designed to be adapted to any rigorous environment, the WAP-252N comes with a IP67-rated aluminum case and standard PoE power scheme, thus eliminating the difficulty in the outdoor wireless LAN deployment.

Flexible Deployment with Various Antennas
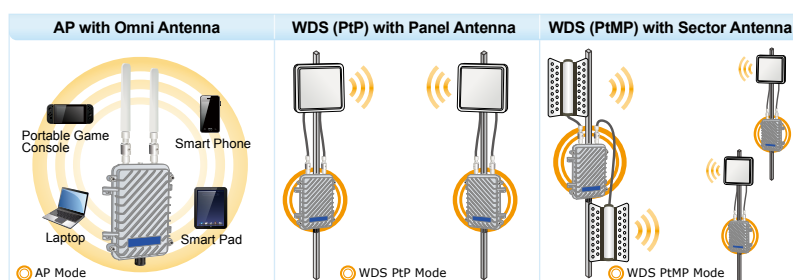
Furthermore, compatible with the latest PLANET Smart AP Control, the WAP-252N can assist administrators in managing the network centrally with ease.

Computer Facilities

External Authentication Server
(RADIUS, TACACS+, LLDP)　DHCP Server　TFTP Server

Internet

Internet Router
or
Security Gateway

WAP-252N/552N

SSID-1
Profile-1

SW AP Controller

Layer 2 PoE Switch

WDAP-802AC

SSID-2
Profile-2

1000BASE-T UTP
1000BASE-T UTP with PoE
100BASE-TX UTP with PoE

**Matching the WAP-252N with the related PLANET products to get the best results is recommended.

Specifications

Product	WAP-252N 300Mbps 802.11n Outdoor Wireless AP
Hardware	
Standard Support	IEEE 802.11b/g/n IEEE 802.11i IEEE 802.3 10BASE-T IEEE 802.3u 100BASE-TX IEEE 802.3x flow control
Material	Aluminum
Dimensions (W x D x H)	153.2 x 79.5 x 234.5 mm
Weight	2kg
Power Requirement	48V 0.5A, IEEE 802.3af/at PoE+
Power Consumption (max.)	< 13W
Mounting Type	Mast mounting
Interface	Wireless IEEE 802.11b/g/n, 2T2R PoE LAN: 1 x 10/100BASE-TX, auto-MDI/MDIX, 802.3af/at PoE In
Button	Reset button
Antenna	Two built-in N-type connectors
Data Rate	IEEE 802.11b: 1, 2, 5.5, 11Mbps IEEE 802.11g: up to 54Mbps IEEE 802.11n (20MHz): up to 150Mbps IEEE 802.11n (40MHz): up to 300Mbps
Media Access Control	CSMA/CA
Modulation	802.11g/n: OFDM (BPSK/ QPSK/ 16QAM/ 64QAM) 802.11b: DSSS (DBPSK/ DQPSK/ CCK)
Frequency Band	FCC: 2.412~2.462GHz ETSI: 2.412~2.472GHz
Operating Channels	FCC: 1~11 Channels ETSI: 1~13 Channels
Max. Transmit Power (dBm)	FCC: up to 29 ± 1dBm ETSI: < 20dBm (EIRP)

Receiver Sensitivity (dBm)	Network Mode	Data Rate	Receive Sensitivity (dBm)
	802.11b	1Mbps	-95
		11Mbps	-90
	802.11g	6Mbps	-90
		54Mbps	-72
	802.11n HT20	MCS0/MCS8	-90
		MCS7/MCS15	-72/-68
	802.11n HT40	MCS0/MCS8	-90
		MCS7/MCS15	-72/-68

Environment & Certification	
Operating Temperature	-40 ~ 70 degrees C
Operating Humidity	10 ~ 90% (non-condensing)
IP Level	IP67
ESD Protection	± 8kV air-gap discharge ± 4kV contact discharge
Surge Protection	± 4kV
Regulatory	CE, RoHS
Software	
LAN	Static IP Supports IP-MAC binding
WAN Type (GW/WISP mode)	− Static IP − Dynamic IP − PPPoE
Wireless Modes	− Access Point − Gateway − Repeater − WDS (AP/Bridge/Station) − WISP
Channel Width	20MHz, 40MHz
Encryption Type	64-/128-bit WEP, WPA, WPA-PSK, WPA2, WPA2-PSK, 802.1X

Wireless Security	Enable/Disable SSID Broadcast
	Wireless MAC address filtering
	User Isolation
Max. SSIDs	4
Max. Wireless Clients	64 per radio (50 is suggested, depending on usage)
Max. WDS Peers	4
Wireless QoS	Supports Wi-Fi Multimedia (WMM)
Wireless Advanced	Auto Channel Selection
	5-level Transmit Power Control (100%, 75%, 50%, 25%, 12.5%)
	Client Limit Control, Coverage Threshold
	Distance control (Auto Ack Timeout)
	Wi-Fi channel analysis chart
Status Monitoring	Device status, wireless client List
	PLANET Smart Discovery
	DHCP client table
	System Log supports remote syslog server
VLAN	IEEE 802.1Q VLAN (VID: 3~4094)
	SSID-to-VLAN mapping up to 4 SSIDs
Self-healing	Supports auto reboot settings per day/hour
Management	Remote management through PLANET DDNS/ Easy DDNS
	Configuration backup and restore
	Supports UPnP
	Supports IGMP Proxy
	Supports PPTP/L2TP/IPSec VPN Pass-through
	SNMP v1/v2c/v3 support, MIB I/II, Private MIB
Central Management[1]	Applicable controllers: WAPC-500, WAPC-1000 and Smart AP Control(SAPC)

Remarks [1]: The feature will be supported through firmware/system upgrade.

Ordering Information

WAP-252N	2.4GHz 300Mbps 802.11n Outdoor Wireless AP

Related Products

WDAP-702AC	1200Mbps Dual Band 802.11ac Outdoor Wireless AP
WDAP-8350	600Mbps Dual Band 802.11n Outdoor Wireless CPE (IP66, 802.3at PoE, 4 x N-type connector)
WBS-200N	2.4GHz 300Mbps 802.11n Outdoor Wireless CPE
WNAP-6335	2.4GHz 300Mbps 802.11n Outdoor Wireless AP/Router (2 x RP-SMA Connector)
BSP-360	Industrial Renewable Energy 4-Port 10/100/1000T 802.3at PoE+ Managed Ethernet Switch
ELA-100	Ethernet Lightning Arrest Box

Accessories

CB-STP-25	25-meter STP Cat5 Cable
WL-NM-0.6	0.6 meter N-male (male pin) to N-male (male pin) Cable
ANT-OM8	2.4GHz 8dBi Omni-directional Antenna
ANT-OM15	2.4GHz 15dBi Omni-directional Antenna
ANT-FP9	2.4GHz 9dBi Flat Panel Directional Antenna
ANT-FP14D	2.4GHz 14dBi Flat Panel Dual Polarization Directional Antenna
ANT-FP18	2.4GHz 18dBi Flat Panel Directional Antenna
ANT-SE18	2.4GHz 12-18dBi Adjustable Sector Antenna
ANT-GR21	2.4GHz 21dBi Grid Directional Antenna
WL-LTNA	2.4/5GHz Lightning Arrester (N-male to N-female)

CE

WAP-252N