5GHz 300Mbps 802.11n Outdoor Wireless AP

Rugged and Durable Outdoor Wi-Fi Solution
PLANET WAP-552N 802.11n Outdoor Wireless AP utilizes the 5GHz frequency band with less interference to deliver maximum 802.11n 2T2R 300Mbps connection speed. From the outdoor adaptability perspective, the WAP-552N comes with the IP67-rated aluminum housing to withstand the rigorously environmental conditions. 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.

Industrial Wireless LAN and LAN
- Compliant with the IEEE 802.11a/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

Robust Protection
For the maximum adaptability and stability in the rugged environment, the WAP-552N not only comes with IP67-rated aluminum housing, but also adopts the enterprise-level Qualcomm kernel, capable of withstanding wide temperature ranging from -40 to 70 degrees C. Compliant with IEEE 802.3af/at PoE standard, the WAP-552N can be powered by PSE (power sourcing equipment) via a single UTP cable, thus working perfectly with PLANET Solar Power PoE system to offer long-distance wireless services in rural areas, dramatically reducing cabling cost and deployment effort.
Maximized Operation Modes Fit Any Application

With the N-type external antenna connectors, the WAP-552N is able to connect specific high-gain directional antennas to adapt to various applications including video data transmission of remote IP cameras, bridging among headquarters and branches or relaying the wireless signal from the urban to the suburban to provide wireless internet services to rural residents. To provide maximum performance, the WAP-552N can implement up to 8 operation modes where a multitude of applications can be had for communities, warehouses, campuses, harbors, etc.

Flexible Deployment with Various Antennas

<table>
<thead>
<tr>
<th>AP with Omni Antenna</th>
<th>WDS (PtP) with Panel Antenna</th>
<th>WDS (PtMP) with Sector Antenna</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portable Game Console</td>
<td>Smart Phone</td>
<td>Smart Pad</td>
</tr>
<tr>
<td>Laptop</td>
<td>WDS PtP Mode</td>
<td>WDS PtMP Mode</td>
</tr>
</tbody>
</table>

Multiple SSIDs with VLAN Tagging

As for security, the WAP-552N 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-552N to work with managed Ethernet switches to have VLANs assigned to a different access level and authority.
Optimized Efficiency in AP Management

The brand-new GUI configuration wizard helps the system administrator easily set up the WAP-552N 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-552N 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

Optimal 5GHz Backhaul Solution with Cost-effectiveness

With a specific antenna connected through the built-in N-type connectors and eight operation modes, the WAP-552N greatly benefits the system integrator to offer a steady IP surveillance and wireless backhaul links by using the less interference of 5GHz frequency band, especially suitable for harsh environments. Meeting IP67 protection standard and using a standard PoE power scheme, the WAP-552N eliminates the difficulty in outdoor wireless LAN deployment.
In addition, compatible with the latest PLANET Smart AP Control, the WAP-552N can assist administrators in managing the network centrally with ease.

**Matching the WAP-552N with the related PLANET products to get the best results is recommended.**
### Specifications

**Product:** WAP-552N

*300Mbps 802.11n Outdoor Wireless AP*

#### Hardware Specifications

| Standard Support | IEEE 802.11a/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 Requirements | 48V DC IN, 0.5A, IEEE 802.3af/at PoE+  
| Power Consumption (max.) | < 13W  
| Mounting Type    | Mast mounting  
| Interface        | Wireless IEEE 802.11a/n, 2T2R PoE LAN: 1 x 10/100BASE-TX, auto-MDI/MDIX, 802.3af/at PoE In  
| Button           | Reset button  
| Antenna          | Built-in two N-type connectors (female)  
| Data Rate        | IEEE 802.11a: up to 54Mbps  
|                  | IEEE 802.11n (20MHz): up to 150Mbps  
|                  | IEEE 802.11n (40MHz): up to 300Mbps  
| Media Access Control | CSMA/CA  
| Modulation       | 802.11a/n: OFDM (BPSK/ QPSK/ 16QAM/ 64QAM)  
| Frequency Band   | FCC: 5.180~5.240GHz, 5.745~5.825GHz  
|                  | ETSI: 5.180~5.700GHz  
| Operating Channels | FCC: 36, 40, 44, 48, 149, 153, 157, 161, 165 (9 channels)  
| Max. Transmit Power (dBm) | FCC: up to 27 ± 2dBm  
|                  | ETSI: < 20dBm (EIRP)  
| Receiver Sensitivity (dBm) |  
| Network Mode     | Data Rate | Receive Sensitivity (dBm)  
| 802.11a          | 6Mbps     | -92  
|                  | 54Mbps    | -75  
| 802.11n HT20     | MCS0/MCS8 | -91  
|                  | MCS7/MCS15 | -72  
| 802.11n HT40     | MCS0/MCS8 | -88  
|                  | MCS7/MCS15 | -70  

#### Environment & Certification

- Operating Temperature: -40 ~ 70 degrees C
- Operating Humidity: 10 ~ 90% (non-condensing)
- IP Level: IP67
- ESD Protection: ± 6KV 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 Max. 32 MAC address filtering, User Isolation
- **Max. SSIDs:** 4
- **Max. Wireless Clients:** 64 per radio (50 are 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
- Fast Roaming

### 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
Applicable controllers: WAPC-500, WAPC-1000 and Smart AP Control(SAPC)

### Ordering Information

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAP-552N</td>
<td>5GHz 300Mbps 802.11n Outdoor Wireless AP</td>
</tr>
</tbody>
</table>

### Related Products

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>WAPC-500</td>
<td>1200Mbps Dual Band 802.11ac Outdoor Wireless AP</td>
</tr>
<tr>
<td>WAPC-1000</td>
<td>600Mbps Dual Band 802.11n Outdoor Wireless CPE (IP66, 802.3at PoE, 4 x N-type connector)</td>
</tr>
<tr>
<td>WAP-500N</td>
<td>5GHz 300Mbps 802.11n Outdoor Wireless AP</td>
</tr>
<tr>
<td>WBS-500N</td>
<td>5GHz 300Mbps 802.11n Outdoor Wireless CPE</td>
</tr>
<tr>
<td>WBS-502AC</td>
<td>5GHz 900Mbps 802.11nac Outdoor Wireless CPE</td>
</tr>
<tr>
<td>WNAP-7325</td>
<td>5GHz 300Mbps 802.11a/n Outdoor Wireless CPE (Built-in 14dBi Antenna)</td>
</tr>
<tr>
<td>WNAP-7335</td>
<td>5GHz 300Mbps 802.11a/n Outdoor Wireless AP/Router (2 x RP-SMA Connector)</td>
</tr>
<tr>
<td>BSP-360</td>
<td>Industrial Renewable Energy 4-Port 10/100/1000T 802.3at PoE+ Managed Ethernet Switch</td>
</tr>
<tr>
<td>ELA-100</td>
<td>Ethernet Lightning Arrest Box</td>
</tr>
</tbody>
</table>

### Accessories

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CB-STP-25</td>
<td>25-meter STP Cat5 Cable</td>
</tr>
<tr>
<td>WL-NM-0.6</td>
<td>0.6 meter N-male (male pin) to N-male (male pin) Cable</td>
</tr>
<tr>
<td>ANT-OM10A</td>
<td>5GHz 10dBi Omni-directional Antenna</td>
</tr>
<tr>
<td>ANT-FP14AD</td>
<td>5GHz 14dBi Flat Panel Dual Polarization Directional Antenna</td>
</tr>
<tr>
<td>ANT-FP18A</td>
<td>5GHz 18dBi Flat Panel Antenna</td>
</tr>
<tr>
<td>ANT-FP23A</td>
<td>5GHz 23dBi Flat Panel Directional Antenna</td>
</tr>
<tr>
<td>ANT-SE17A</td>
<td>5GHz 16.5dBi Sector Antenna</td>
</tr>
<tr>
<td>WL-LTNA</td>
<td>2.4/5GHz Lightning Arrester (N-male to N-female)</td>
</tr>
</tbody>
</table>