



# WIRELESS LANS

Empowering Mobility & Security

# PLANET Wireless LAN Management Solution

PLANET Wireless LAN Management Solution offers multiple ways of central AP management with Hardware AP Controller, Software AP Controller and Firmware AP Controller. The solution enables you to control more than 1000 APs in different indoor or outdoor locations at the same time. Featuring the friendly floor plan, dashboard and graphical statistic functions through one single browser-based web user interface, the administrator can easily discover, configure, update and monitor all the managed APs.



## Watch Over Wireless APs within Minutes

Provides a web-based dashboard with graphical data analysis for your wireless APs network



## Centralized Wireless LAN Management via UNI-NMS

Controls wireless APs via PLANET's Universal Network Management System or DDNS cloud portal



## Optimizing Wi-Fi Deployment with Google Map

Optimizes signal coverage to enhance network performance



## Easy to Manage Multiple Access Points

User-friendly Web GUI and step-by-step guidance for easy management



Wireless AP Controllers



Indoor Managed Access Points



Outdoor Managed Access Points

## Wireless LAN Controllers Solution

|                                  | Hardware AP Controller                                                            | Software AP Controller                                                                      | AP Controller PoE Router                                                            |                                                                                             | Wireless Switch with PoE                                                            |                                                                                     | Firmware AP Controller                                                              |
|----------------------------------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Model No./System Name            | NMS-500<br>NMS-1000V                                                              | SAPC                                                                                        | VR-300/VR-300P                                                                      | IVR-300/IVR-300P                                                                            | WS-2864PVR                                                                          | WS-1232P                                                                            | NMS (Network Management System)                                                     |
| Product Image                    |  |            |   |          |  |  |  |
|                                  |                                                                                   |                                                                                             |  |                                                                                             |  |                                                                                     |                                                                                     |
| Max. number of APs supported     | 512/1024                                                                          | 256                                                                                         | 20                                                                                  | 20                                                                                          | 64                                                                                  | 32                                                                                  | 1 to 5<br>(the same model required)                                                 |
| AP Control related features      |                                                                                   |                                                                                             |                                                                                     |                                                                                             |                                                                                     |                                                                                     |                                                                                     |
| AP Discovery                     | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| AP Control, Cluster Management   | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| AP Status Monitoring             | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Real-time Graphical Statistics   | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | -                                                                                   |
| SSID/RF Profile Creation         | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Profile Backup/Restore           | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | -                                                                                   | -                                                                                   | -                                                                                   |
| Bulk AP Provisioning/Delivery    | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Bulk AP Firmware Upgrade         | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Floor Map                        | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| Google Map                       | ●*1                                                                               | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                 | -                                                                                   |
| Topology View                    | ●                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                 | -                                                                                   |
| Rogue AP Detection               | ●*1                                                                               | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                 | -                                                                                   |
| Built-in DHCP Server             | ●                                                                                 | -                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | -                                                                                   |
| Auto IP Assignment (DHCP server) | ●                                                                                 | ●*2                                                                                         | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| L2 Roaming                       | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | -                                                                                   |
| L3 Routing                       | -                                                                                 | -                                                                                           | ●                                                                                   | ●                                                                                           | IPv4/IPv6 Static routing,OSFPv2                                                     |                                                                                     | -                                                                                   |
| PoE Schedule, Alive Check        | -                                                                                 | -                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | -                                                                                   |
| SSIDs-to-VLANs mapping           | ●                                                                                 | ●                                                                                           | ●                                                                                   | ●                                                                                           | ●                                                                                   | ●                                                                                   | ●                                                                                   |
| 802.1X RADIUS Authentication     | ●                                                                                 | ●*3                                                                                         | ●*3                                                                                 | ●*3                                                                                         | ●*3                                                                                 | ●*3                                                                                 | ●                                                                                   |
| Captive Portal                   | ●*1                                                                               | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                 | -                                                                                   |
| MAC Access Control (Black list)  | ●*1                                                                               | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                 | ●                                                                                   |
| User Account Management          | ●                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                         | ●*1                                                                                 | ●*1                                                                                 | ●                                                                                   |
| Supported AP Models              |                                                                                   | <b>Outdoor:</b><br>WDAP-702AC<br>WDAP-802AC<br>WAP-200N<br>WAP-252N<br>WAP-500N<br>WAP-552N | WBS-200N<br>WBS-500N<br>WBS-512AC<br>WBS-502AC<br>WBS-202N<br>WBS-502N              | <b>Indoor:</b><br>WDAP-C7210E<br>WDAP-C7200E<br>WNAP-C3220E<br>WNAP-W2200UE<br>WDAP-C7200AC | WDAP-W7200AC<br>WNAP-C3220A<br>WNAP-W2201A<br>WDAP-W750E                            |                                                                                     | WDAP-C1750<br>WDAP-1750AC                                                           |

\*1. Future supported through firmware/patch upgrade

\*2. DHCP server is required

\*3. External RADIUS Server is required

## Indoor Managed AP Series

|                |                        | Indoor 11ac Dual Band APs                                                         |                                                                                            |                                                                                                       |                                                                                                    | Indoor 11n 2.4G APs                                                                 |                                                                                                    |
|----------------|------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Model          |                        | WDAP-1750AC                                                                       | WDAP-C7210E                                                                                | WDAP-W1200E                                                                                           | WDAP-W750E                                                                                         | WNAP-C3220E                                                                         | WNAP-W2200UE                                                                                       |
| Product Image  |                        |  | <br>WAVE2 | <br>WAVE2 1200Mbps | <br>USB Charger |  | <br>USB Charger |
| Wireless       | Standard               | 802.11a/b/g/n/ac                                                                  | 802.11ac/b/g/n MU-MIMO technology                                                          | 802.11a/b/g/n/ac                                                                                      | 802.11b/g/n/ac                                                                                     | 802.11b/g/n                                                                         | 802.11b/g/n                                                                                        |
|                | Max. Data Rate         | 450+1300Mbps                                                                      | 300+900Mbps                                                                                | 300+900Mbps                                                                                           | 750Mbps                                                                                            | 300Mbps                                                                             | 300Mbps                                                                                            |
|                | MIMO System            | 3T3R                                                                              | 2T2R                                                                                       | 2T2R                                                                                                  | 24G:2T2R<br>5G:1T1R                                                                                | 2T2R                                                                                | 2T2R                                                                                               |
|                | Antenna/Connector      | 2dBi x3                                                                           | 5dBi x 2                                                                                   | 2dBi x4                                                                                               | 2dBi x2                                                                                            | 5dBi x2                                                                             | 2dBi x2                                                                                            |
|                | Max. TX Power          | FCC: < 27.5dBm<br>ETSI: EIRP < 20dBm                                              | FCC: < 22dBm<br>ETSI: EIRP < 20dBm                                                         | FCC: < 32dBm<br>ETSI: EIRP < 28dBm                                                                    | EIRP < 20dBm                                                                                       | FCC: < 23dBm<br>ETSI: EIRP < 20dBm                                                  | EIRP < 20dBm                                                                                       |
| Hardware       | Network Interface      | 2 x 10/100/1000BASE-T (LAN2 PoE Out)                                              | 2 x 10/100/1000BASE-T                                                                      | 1*10/100/1000Mbps WAN<br>2*10/100/1000Mbps LAN 1*RJ11 port                                            | 2 x 10/100BASE-TX                                                                                  | 1 x 10/100BASE-TX                                                                   | 2 x 10/100BASE-TX                                                                                  |
|                | USB                    | -                                                                                 | -                                                                                          | -                                                                                                     | 1 x USB 2.0 charger                                                                                | -                                                                                   | 1 x USB 2.0 charger                                                                                |
|                | PoE                    | 802.3at PoE+                                                                      | 802.3at PoE+                                                                               | 802.3af PoE+                                                                                          | 802.3af/at PoE                                                                                     | 802.3af/at PoE                                                                      | 802.3af/at PoE                                                                                     |
|                | Power Requirements     | 12V DC, 4A or 802.3at PoE+                                                        | 12V DC, 1.5A or 802.3at PoE+                                                               | 48V 802.3af PoE                                                                                       | 48V 802.3af PoE                                                                                    | 48V 802.3af PoE                                                                     | 48V 802.3af PoE                                                                                    |
| Operating Mode | Access Point           | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Client Bridge          | -                                                                                 | -                                                                                          | -                                                                                                     | -                                                                                                  | -                                                                                   | -                                                                                                  |
|                | WDS Bridge             | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Repeater               | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Universal Repeater     | -                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | WISP                   | -                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
| Security       | WEP                    | 64-/128-bit                                                                       | 64-/128-bit                                                                                | 64-/128-bit                                                                                           | 64-/128-bit                                                                                        | 64-/128-bit                                                                         | 64-/128-bit                                                                                        |
|                | WPA/WPA2               | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | 802.1X                 | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | WPS                    | ●                                                                                 | -                                                                                          | -                                                                                                     | -                                                                                                  | -                                                                                   | -                                                                                                  |
| Advanced       | Multiple SSIDs         | 16 per radio                                                                      | 8                                                                                          | 8                                                                                                     | 8                                                                                                  | 4                                                                                   | 4                                                                                                  |
|                | 802.1Q VLAN            | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | AP Isolation           | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Max. Wireless Clients  | 50+50 (2.4G+5G)                                                                   | 50+50 (2.4G+5G)                                                                            | 50+50 (2.4G+5G)                                                                                       | 50+50 (2.4G+5G)                                                                                    | 30                                                                                  | 20                                                                                                 |
|                | WMM                    | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | MAC Filtering          | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Guest Network          | -                                                                                 | -                                                                                          | -                                                                                                     | -                                                                                                  | -                                                                                   | -                                                                                                  |
|                | IPv6                   | -                                                                                 | -                                                                                          | -                                                                                                     | -                                                                                                  | -                                                                                   | -                                                                                                  |
|                | SNMP                   | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Fast Roaming           | -                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
|                | Smart Discovery        | ●                                                                                 | ●                                                                                          | ●                                                                                                     | ●                                                                                                  | ●                                                                                   | ●                                                                                                  |
| Environment    | Operating Temperature  | 0 ~ 50 degrees C                                                                  | -20~ 55 degrees C                                                                          | -20~ 55 degrees C                                                                                     | -20 ~ 55 degrees C                                                                                 | 0 ~ 40 degrees C                                                                    | 0 ~ 40 degrees C                                                                                   |
|                | Operating Humidity     | 10 ~ 90% (non-condensing)                                                         |                                                                                            | 5 ~ 90% (non-condensing)                                                                              |                                                                                                    | 10 ~ 90% (non-condensing)                                                           |                                                                                                    |
| Management     | Applicable Controllers | Firmware NMS System                                                               | NMS-500/NMS-1000V/WS-1232P/WS-2864PVR<br>VR-300/VR-300P/IVR-300/IVR-300P                   |                                                                                                       |                                                                                                    | NMS-500/NMS-1000V/WS-1232P/WS-2864PVR<br>VR-300/VR-300P/IVR-300/IVR-300P            |                                                                                                    |



## Dual Band Outdoor Wireless Access Points

|                            |                        | 11ac Dual Band APs                                                                |                                                                                   | 11n Dual Band AP                                                                    |
|----------------------------|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Model                      |                        | WDAP-850AC                                                                        | WDAP-802AC                                                                        | WDAP-8350                                                                           |
| Product Image              |                        |  |  |  |
|                            |                        | <div>WAVE2</div> <div>1200Mbps</div>                                              | <div>IP68</div>                                                                   | <div>IP66</div>                                                                     |
| Outdoor IP Level           |                        | IP67                                                                              | IP68                                                                              | IP66                                                                                |
| Wireless                   | Standard               | 802.11ac/b/g/n<br>MU-MIMO technology                                              | 802.11a/b/g/n/ac/i                                                                | 802.11a/b/g/n                                                                       |
|                            | Max. Data Rate         | 300Mbps+900Mbps                                                                   | 300+867Mbps                                                                       | 300+300Mbps                                                                         |
|                            | Antenna/Connector      | 4 x N-Type (F) work with<br>4PCS 8dBi omni antennas.                              | 4 x N-Type (F)                                                                    | 4 x N-Type (F)                                                                      |
|                            | Max. Range             | Depends on antenna                                                                | Depends on antenna                                                                | Depends on antenna                                                                  |
|                            | Max. TX Power          | FCC : < 25dBm<br>ETSI : EIRP < 20dBm                                              | FCC : < 25dBm<br>ETSI : EIRP < 20dBm                                              | FCC : < 27dBm<br>ETSI : EIRP < 20dBm                                                |
| Hardware                   | Network Interface      | 1 x 10/100/1000BASE-T                                                             | 1 x 10/100/1000BASE-T                                                             | 1 x 10/100/1000BASE-T                                                               |
|                            | PoE                    | 802.3at PoE+                                                                      | 802.3at PoE+                                                                      | 802.3at PoE+                                                                        |
| Operating Mode             | Access Point           | ●                                                                                 | ●                                                                                 | ●                                                                                   |
|                            | Client Bridge          | -                                                                                 | -                                                                                 | -                                                                                   |
|                            | WDS Bridge             | ●                                                                                 | ●                                                                                 | ●                                                                                   |
|                            | Repeater               | ●                                                                                 | -                                                                                 | -                                                                                   |
|                            | Universal Repeater     | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | WISP                   | ●                                                                                 | ●                                                                                 | -                                                                                   |
| Security                   | WEP                    | 64-/128-bit                                                                       | 64-/128-bit                                                                       | 64-/128-bit                                                                         |
|                            | WPA/WPA2               | ●                                                                                 | ●                                                                                 | ●                                                                                   |
|                            | 802.1X                 | ●                                                                                 | ●                                                                                 | ●                                                                                   |
| WAN Type<br>(In WISP Mode) | Dynamic IP             | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | Static IP              | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | PPPoE/PPTP/L2TP        | ●/-/-                                                                             | ●/-/-                                                                             | -                                                                                   |
| Advanced                   | Multiple SSIDs         | 4+4 (2.4G+5G)                                                                     | 4+4 (2.4G+5G)                                                                     | 16+16 (2.4G+5G)                                                                     |
|                            | 802.1Q VLAN            | ●                                                                                 | ●                                                                                 | ●                                                                                   |
|                            | AP Isolation           | ●                                                                                 | ●                                                                                 | ●                                                                                   |
|                            | Max. WDS Peers         | 4                                                                                 | 4                                                                                 | 16+16 (2.4G+5G)                                                                     |
|                            | Max. Wireless Clients  | 64+64 (2.4G+5G)                                                                   | 50+50 (2.4G+5G)                                                                   | 50+50 (2.4G+5G)                                                                     |
|                            | WMM                    | ●                                                                                 | ●                                                                                 | ●                                                                                   |
|                            | MAC Filtering          | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | Firewall               | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | VPN Pass-through       | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | Guest Network          | -                                                                                 | -                                                                                 | -                                                                                   |
|                            | IPv6                   | -                                                                                 | -                                                                                 | ●                                                                                   |
|                            | SNMP                   | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | Fast Roaming           | ●                                                                                 | ●                                                                                 | -                                                                                   |
|                            | Smart Discovery        | ●                                                                                 | ●                                                                                 | ●                                                                                   |
| Environment                | Operating Temperature  | -40~70 degrees C                                                                  | -40 ~ 70 degrees C                                                                | -40 ~ 70 degrees C                                                                  |
|                            | Operating Humidity     | 5 ~ 95% (non-condensing)                                                          | 10 ~ 90% (non-condensing)                                                         | 10 ~ 95% (non-condensing)                                                           |
| Management                 | Applicable Controllers | NMS-500/NMS-1000V/WS-1232P/WS-2864PVR<br>VR-300/VR-300P/IVR-300/IVR-300P          |                                                                                   | -                                                                                   |

## 2.4GHz Outdoor Wireless Access Points

|                            |                        | 11n 2.4G APs/CPE                                                                    |                                                                                     |
|----------------------------|------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Model                      |                        | WAP-252N                                                                            | WBS-202N                                                                            |
| Product Image              |                        |  |  |
|                            |                        | IP67                                                                                | 14dBi                                                                               |
| Outdoor IP Level           |                        | IP67                                                                                | IP55                                                                                |
| Wireless                   | Standard               | 802.11b/g/n                                                                         | 802.11b/g/n                                                                         |
|                            | Max. Data Rate         | 300Mbps                                                                             | 300Mbps                                                                             |
|                            | Antenna/Connector      | 2 x N-Type (F)                                                                      | 14dBi dual-polarity directional antenna                                             |
|                            | Max. Range             | Depends on antenna                                                                  | Up to 10 km with 14dBi dual-polarity antenna                                        |
|                            | Max. TX Power          | FCC : 29dBm<br>ETSI : EIRP < 20dBm                                                  | FCC : 29dBm<br>ETSI : EIRP < 20dBm                                                  |
| Hardware                   | Network Interface      | 1 x 10/100BASE-TX                                                                   | 1 x 10/100BASE-TX                                                                   |
|                            | PoE                    | 802.3af/at PoE                                                                      | 802.3af/at PoE                                                                      |
| Operating Mode             | Access Point           | ●                                                                                   | ●                                                                                   |
|                            | Client Bridge          | -                                                                                   | -                                                                                   |
|                            | WDS Bridge             | ●                                                                                   | ●                                                                                   |
|                            | Repeater               | ●                                                                                   | ●                                                                                   |
|                            | Universal Repeater     | ●                                                                                   | ●                                                                                   |
|                            | WISP                   | ●                                                                                   | ●                                                                                   |
| Security                   | WEP                    | 64-/128-bit                                                                         | -                                                                                   |
|                            | WPA/WPA2               | ●                                                                                   | ●                                                                                   |
|                            | 802.1X                 | ●                                                                                   | ●                                                                                   |
| WAN Type<br>(In WISP Mode) | Dynamic IP             | ●                                                                                   | ●                                                                                   |
|                            | Static IP              | ●                                                                                   | ●                                                                                   |
|                            | PPPoE/PPTP/L2TP        | ● / - / -                                                                           | ● / - / -                                                                           |
| Advanced                   | Multiple SSIDs         | 4                                                                                   | 4                                                                                   |
|                            | 802.1Q VLAN            | ●                                                                                   | ●                                                                                   |
|                            | AP Isolation           | ●                                                                                   | ●                                                                                   |
|                            | Max. WDS Peers         | 4                                                                                   | 4                                                                                   |
|                            | Max. Wireless Clients  | 50                                                                                  | 50                                                                                  |
|                            | WMM                    | ●                                                                                   | ●                                                                                   |
|                            | MAC Filtering          | ●                                                                                   | ●                                                                                   |
|                            | Firewall               | ●                                                                                   | -                                                                                   |
|                            | VPN Pass-through       | ●                                                                                   | ●                                                                                   |
|                            | Guest Network          | -                                                                                   | -                                                                                   |
|                            | IPv6                   | -                                                                                   | -                                                                                   |
|                            | SNMP                   | ●                                                                                   | ●                                                                                   |
|                            | Fast Roaming           | ●                                                                                   | ●                                                                                   |
|                            | Smart Discovery        | ●                                                                                   | ●                                                                                   |
| Environment                | Operating Temperature  | -40 ~ 70 degrees C                                                                  | -20 ~ 70 degrees C                                                                  |
|                            | Operating Humidity     | 10 ~ 95% (non-condensing)                                                           | 5 ~ 90% (non-condensing)                                                            |
| Management                 | Applicable Controllers | WAPC-500/NMS-1000V/WS-1232P/ WS-2864PVR                                             |                                                                                     |

## 5GHz Outdoor Wireless Access Points

| 11n 5G APs/CPE          |                        |                                                                                   |                                                                                   |
|-------------------------|------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Model                   |                        | WAP-552N                                                                          | WBS-512AC                                                                         |
| Product Image           |                        |  |  |
|                         |                        | IP67                                                                              | 14dBi                                                                             |
| Outdoor IP Level        |                        | IP67                                                                              | IP55                                                                              |
| Wireless                | Standard               | 802.11a/n                                                                         | 802.11a/n                                                                         |
|                         | Max. Data Rate         | 300Mbps                                                                           | 300Mbps                                                                           |
|                         | Antenna/Connector      | 2 x N-Type (F)                                                                    | 14dBi dual-polarity directional antenna                                           |
|                         | Max. Range             | Depends on antenna                                                                | Up to 10km                                                                        |
| Hardware                | Max. TX Power          | FCC : 27dBm<br>ETSI : EIRP < 20dBm                                                | FCC : 27dBm<br>ETSI : EIRP < 20dBm                                                |
|                         | Network Interface      | 1 x 10/100BASE-TX                                                                 | 1 x 10/100BASE-TX                                                                 |
| Operating Mode          | PoE                    | 802.3af/at PoE                                                                    | 802.3af/at PoE                                                                    |
|                         | Access Point           | ●                                                                                 | ●                                                                                 |
|                         | Client Bridge          | -                                                                                 | -                                                                                 |
|                         | WDS Bridge             | ●                                                                                 | ●                                                                                 |
|                         | Repeater               | ●                                                                                 | ●                                                                                 |
|                         | Universal Repeater     | ●                                                                                 | ●                                                                                 |
| Security                | WISP                   | ●                                                                                 | ●                                                                                 |
|                         | WEP                    | 64-/128-bit                                                                       | -                                                                                 |
|                         | WPA/WPA2               | ●                                                                                 | ●                                                                                 |
| WAN Type (In WISP Mode) | 802.1X                 | ●                                                                                 | ●                                                                                 |
|                         | Dynamic IP             | ●                                                                                 | ●                                                                                 |
| Advanced                | Static IP              | ●                                                                                 | ●                                                                                 |
|                         | PPPoE/PPTP/L2TP        | ●/-/-                                                                             | ●/-/-                                                                             |
| Advanced                | Multiple SSIDs         | 4                                                                                 | 4                                                                                 |
|                         | 802.1Q VLAN            | ●                                                                                 | ●                                                                                 |
|                         | AP Isolation           | ●                                                                                 | ●                                                                                 |
|                         | Max. WDS Peers         | 4                                                                                 | 4                                                                                 |
|                         | Max. Wireless Clients  | 50                                                                                | 50                                                                                |
|                         | WMM                    | ●                                                                                 | ●                                                                                 |
|                         | MAC Filtering          | ●                                                                                 | ●                                                                                 |
|                         | Firewall               | -                                                                                 | -                                                                                 |
|                         | VPN Pass-through       | ●                                                                                 | ●                                                                                 |
|                         | Guest Network          | -                                                                                 | -                                                                                 |
|                         | IPv6                   | -                                                                                 | -                                                                                 |
|                         | SNMP                   | ●                                                                                 | ●                                                                                 |
|                         | Fast Roaming           | -                                                                                 | -                                                                                 |
|                         | Smart Discovery        | ●                                                                                 | ●                                                                                 |
| Environment             | Operating Temperature  | -40 ~ 70 degrees C                                                                | -20 ~ 70 degrees C                                                                |
|                         | Operating Humidity     | 10 ~ 95% (non-condensing)                                                         | 5 ~ 90% (non-condensing)                                                          |
| Management              | Applicable Controllers | WAPC-500/NMS-1000V/ WS-1232P/ WS-2864PVR                                          |                                                                                   |

## 4G LTE Vehicle/Industrial Wireless Gateway

| Wireless Gateway    |                        |                                                                                                                                                            |                                                                                     |                                                                                     |
|---------------------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Model               |                        | VCG-1500WG-LTE                                                                                                                                             | ICG-2510W-LTE                                                                       | ICG-2510WG-LTE                                                                      |
| Product Image       |                        |                                                                         |  |  |
| Hardware            | 10/100BASE-TX          | 4                                                                                                                                                          | 5 10/100/1000BASE-T                                                                 | 5 10/100/1000BASE-T                                                                 |
|                     | WAN                    | 1                                                                                                                                                          | 1                                                                                   | 1                                                                                   |
|                     | Wi-Fi                  | 802.11n, 2.4GHz                                                                                                                                            | 802.11n, 2.4GHz<br>802.11ac, 5GHz                                                   | 802.11n, 2.4GHz<br>802.11ac, 5GHz                                                   |
|                     | GPS                    | ●                                                                                                                                                          | -                                                                                   | ●                                                                                   |
|                     | SIM Card Slot          | 1                                                                                                                                                          | 2 (Failover, Load balancing and bonding function)                                   |                                                                                     |
|                     | TF Card Slot           | 2                                                                                                                                                          | 1                                                                                   | 1                                                                                   |
| Multi Band Supports | EU Model               | FDD LTE B1/B3/B5/B7/B8/B20(2100/1800/850/2600/900/800)<br>TDD LTE B38/B40/B41(2600/2300/2500)<br>WCDMA B1/B5/B8(2100/850/900)<br>GSM/EDGE B3/B8 (1800/900) |                                                                                     |                                                                                     |
|                     | US Model               | FDD LTE B2/B4/B12 (1900/AWS1700/700)<br>WCDMA B2/B4/B5 (1900/AWS1700/850)                                                                                  |                                                                                     |                                                                                     |
|                     | LTE                    | 20MHz bandwidth:<br>100Mbps (DL), 50Mbps (UL)                                                                                                              |                                                                                     |                                                                                     |
| Power               | Inputs                 | 5-32V DC                                                                                                                                                   | 5-36V DC                                                                            | 5-36V DC                                                                            |
|                     | Connector              | Standard 4-pin vehicle power jack                                                                                                                          | 6 pin 3.5mm terminal block                                                          |                                                                                     |
|                     | Consumption            | 3 watts                                                                                                                                                    | 7 watts                                                                             | 7 watts                                                                             |
| Mechanical          | Dimensions (W x D x H) | 168 x 104 x 25 mm                                                                                                                                          | 115.7 x 133 x 45                                                                    | 115.7 x 133 x 45                                                                    |
|                     | Enclosure              | IP30 metal case                                                                                                                                            | IP30 metal case                                                                     | IP30 metal case                                                                     |
|                     | Mounting               | Mounting brackets for vehicles                                                                                                                             | DIN rail                                                                            | DIN rail                                                                            |
| Environment         | Operating Temperature  | -25~65 degrees C                                                                                                                                           | -35~75degrees                                                                       | -35~75degrees                                                                       |
|                     | Operating Humidity     | 95% (non-condensing)                                                                                                                                       | 95%(non-condensing)                                                                 | 95%(non-condensing)                                                                 |
| Regulatory          | Emissions              | FCC Part 15 Class A, CE                                                                                                                                    | FCC Part 15 Class A, CE                                                             | FCC Part 15 Class A, CE                                                             |
|                     | Stability              | Static Route, VPN, DDNS, IP Filter, QoS                                                                                                                    | Static Route, VPN, DDNS, IP Filter                                                  |                                                                                     |
| Management          | Interface              | Console, Web, telnet                                                                                                                                       | Console, Web, telnet                                                                | Console, Web, telnet                                                                |
|                     | Wifidog                | work with CMS for remote management and advertising                                                                                                        |                                                                                     |                                                                                     |
|                     | Log                    | Syslog Log                                                                                                                                                 | Syslog Log                                                                          | Syslog Log                                                                          |

# Home & SOHO Wi-Fi Networking

PLANET makes your home networking easier and more compact with 802.11ac solution. Simply install an 802.11ac compatible wireless router, WDRT-1202AC, in the house, and its wide coverage and stable quality will definitely offer you a seamless and impressive wireless roaming experience. From now on, you can surf the web, enjoy multimedia streaming and share files wirelessly without any limitation.



A



## WDRT-1202AC

1200Mbps 802.11ac Dual Band  
Wireless Gigabit Router

B



## WDAP-W1200E

1200Mbps 802.11ac Wave 2  
MU-MIMO Dual Band  
In-Wall Wireless AP

C



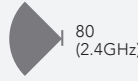
## ICA-W7100

720p Wireless IR PT  
IP Camera

## 802.11ac Dual Band Wireless Routers

|                |                       | Dual-Band APs/Routers                                                               | 11n AP/Router                                                                       |
|----------------|-----------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Model          |                       | WDRT-1202AC                                                                         | FRT-415N                                                                            |
| Product Image  |                       |  |  |
|                |                       | Guest Network                                                                       | Fiber                                                                               |
| Wireless       | Standard              | 802.11a/b/g/n/ac                                                                    | 802.11b/g/n                                                                         |
|                | Max. Data Rate        | 300+867Mbps                                                                         | 300Mbps                                                                             |
|                | MIMO System           | 2T2R                                                                                | 2T2R                                                                                |
|                | Antenna/Connector     | 2.4G: 5dBi<br>5G: 5dBi                                                              | 5dBi x2                                                                             |
|                | Max. Range            | indoor: 70m<br>outdoor: 300m                                                        | indoor: 70m<br>outdoor: 300m                                                        |
|                | Max. TX Power         | EIRP < 20dBm                                                                        | EIRP < 20dBm                                                                        |
| Hardware       | Network Interface     | 1 x 10/100/1000BASE-T WAN<br>4 x 10/100/1000BASE-T LAN                              | 4 x 10/100BASE-TX LAN<br>1 x 100BASE-FX SFP                                         |
|                | USB                   | 1 x USB 2.0 for storage, DLNA                                                       | -                                                                                   |
|                | Power Requirements    | 12V DC, 1.5A                                                                        | 12V DC, 0.5A                                                                        |
| Operating Mode | Access Point          | ●                                                                                   | ●                                                                                   |
|                | Client Bridge         | -                                                                                   | -                                                                                   |
|                | WDS Bridge            | -                                                                                   | ●                                                                                   |
|                | Repeater              | -                                                                                   | -                                                                                   |
|                | Universal Repeater    | -                                                                                   | -                                                                                   |
|                | WISP                  | -                                                                                   | -                                                                                   |
| Security       | WEP                   | -                                                                                   | 64-/128-bit                                                                         |
|                | WPA/WPA2              | ●                                                                                   | ●                                                                                   |
|                | 802.1X                | -                                                                                   | ●                                                                                   |
|                | WPS                   | ●                                                                                   | ●                                                                                   |
| WAN Type       | Dynamic IP            | ●                                                                                   | ●                                                                                   |
|                | Static IP             | ●                                                                                   | ●                                                                                   |
|                | PPPoE/PPTP/L2TP       | ●/●/●                                                                               | ●                                                                                   |
| Advanced       | Multiple SSIDs        | 2                                                                                   | 4                                                                                   |
|                | 802.1Q VLAN           | ● (WAN only)                                                                        | -                                                                                   |
|                | AP Isolation          | -                                                                                   | -                                                                                   |
|                | DMZ                   | ●                                                                                   | ●                                                                                   |
|                | Max. Wireless Clients | 32+32 (2.4G+5G)                                                                     | 16                                                                                  |
|                | WMM                   | -                                                                                   | ●                                                                                   |
|                | MAC Filtering         | ●                                                                                   | ●                                                                                   |
|                | Firewall              | ●                                                                                   | ●                                                                                   |
|                | VPN                   | L2TP over IPSec                                                                     | -                                                                                   |
|                | VPN Pass-through      | -                                                                                   | ●                                                                                   |
|                | Guest Network         | ●                                                                                   | -                                                                                   |
|                | IPv6                  | ●                                                                                   | -                                                                                   |
| Environment    | SNMP                  | -                                                                                   | -                                                                                   |
|                | PLANET DDNS           | ●                                                                                   | ●                                                                                   |
|                | Smart Discovery       | -                                                                                   | -                                                                                   |
|                | Operating Temperature | 0 ~ 40 degrees C                                                                    | 0 ~ 40 degrees C                                                                    |
|                | Operating Humidity    | 10 ~ 90% (non-condensing)                                                           | 10 ~ 90% (non-condensing)                                                           |

## Indoor/Outdoor Wireless Accessories

| Sector Antenna                 |                                                                                      |                                                                                      | Omni-directional Antenna                                                                       |                                                                                               |                                                                                         |                                                                                         |                                                                                         |
|--------------------------------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Model                          | ANT-SE17D                                                                            | ANT-SE17AD                                                                           | ANT-OM5D                                                                                       |                                                                                               | ANT-OM8                                                                                 | ANT-OM10A                                                                               | ANT-OM15                                                                                |
| Product Image                  |     |     |             |                                                                                               |      |      |      |
| Operating Environment          | outdoor                                                                              | outdoor                                                                              | outdoor                                                                                        |                                                                                               | outdoor                                                                                 | outdoor                                                                                 | outdoor                                                                                 |
| Type                           | Dual-polarity Sector Antenna                                                         | Dual-polarity Sector Antenna                                                         | Omni-directional                                                                               |                                                                                               | Omni-directional, General purpose                                                       | Omni-directional                                                                        | Omni-directional, General purpose                                                       |
| Gain                           | 2 x 16.5 dBi                                                                         | 2 x 17 dBi                                                                           | 2.4GHz: 4.5dBi<br>5GHz: 7dBi                                                                   |                                                                                               | 8 dBi                                                                                   | 10 dBi                                                                                  | 15 dBi                                                                                  |
| Horizontal Beamwidth (degrees) |  90 |  90 |  360        |                                                                                               |  360 |  360 |  360 |
| Vertical Beamwidth (degrees )  |  7  |  7  |  80 (2.4GHz) |  55 (5GHz) |  10  |  6   |  10  |
| Connector                      | N-female x 2                                                                         | N-female x 2                                                                         | N-male (male pin)                                                                              |                                                                                               | N-female (female pin)                                                                   | N-female (female pin)                                                                   | N-female (female pin)                                                                   |
| Mounting Type                  | Mast Mount                                                                           | Mast Mount                                                                           | N/A                                                                                            |                                                                                               | Mast mount                                                                              | Pole/Wall mount                                                                         | Mast mount                                                                              |

| Flat Panel Antenna             |                                                                                        |                                                                                        |                                                                                        |                                                                                         | Cable & Others         |                                                                                     | Cable & Others |                                                                                       |                                                                                       |                                                                                       |
|--------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Model                          | ANT-FP14D                                                                              | ANT-FP14AD                                                                             | ANT-FP18                                                                               | ANT-FP18A                                                                               | Model                  | WL-LTNA                                                                             | Model          | WL-SMA-0.6                                                                            | WL-SMA-6                                                                              | WL-N-0.6                                                                              |
| Product Image                  |       |       |       |       | Product Image          |  | Product Image  |    |    |    |
| Operating Environment          | outdoor                                                                                | outdoor                                                                                | outdoor                                                                                | outdoor                                                                                 | Description            | Lightning Arrester                                                                  | Description    | 0.6m Reverse SMA (Male) to N-male (male pin) Cable                                    |                                                                                       | 0.6m N-male (female pin) to N-male (male pin) Cable                                   |
| Type                           | Uni-directional, Flat panel Dual Polarization                                          |                                                                                        | Uni-directional, Flat panel                                                            | Uni-directional, Flat panel                                                             | Frequency              | 0~6GHz                                                                              |                |                                                                                       |                                                                                       |                                                                                       |
| Gain                           | 14 dBi                                                                                 | 14dBi                                                                                  | 18 dBi                                                                                 | 18 dBi                                                                                  | Type                   | Gas Discharged                                                                      |                |                                                                                       |                                                                                       |                                                                                       |
| Horizontal Beamwidth (degrees) |  30 |  30 |  30 |  10 | Gain Loss              | Less than 0.5dB                                                                     |                |                                                                                       |                                                                                       |                                                                                       |
| Vertical Beamwidth (degrees)   |  30 |  30 |  20 |  10 | Max. Withstand Current | 20KA                                                                                |                |                                                                                       |                                                                                       |                                                                                       |
| Connector                      | N-female x2                                                                            | N-female x 2                                                                           | N-female (female pin)                                                                  | N-female (female pin)                                                                   | Connector              | N-male (male pin) to N-female (female pin)                                          |                |                                                                                       |                                                                                       |                                                                                       |
| Mounting type                  | Mast mount                                                                             | Mast mount                                                                             | Wall mount                                                                             | Pole/Wall mount                                                                         |                        |                                                                                     | Product Image  |  |  |  |
|                                |                                                                                        |                                                                                        |                                                                                        |                                                                                         |                        |                                                                                     | Description    | 0.6m N-male (male pin) to N-male (male pin) Cable                                     | 0.6m N-male (male pin) to N-female (female pin) Cable                                 | 0.3m MMCX to SMA Cable                                                                |



### PLANET Technology Corporation

11F., No. 96, Minquan Rd., Xindian Dist., New Taipei City 231, Taiwan (R.O.C) Tel: +886-2-22199518 Fax: +886-2-22199528 E-mail: sales@planet.com.tw  
PLANET reserves the right to change specifications without prior notice. All brand names and trademarks are property of their respective owners. © PLANET Technology Corporation DM-WL0121

