Product Specification

802.11a/n Wireless Outdoor Access Point

WNAP-7206

Change History:

Revision	Date	Author	Change List
Version 1.0	2012-09-04	Miki Chou	Initial release

Author	Miki	Editor:	Miki
Approved by:	Tom	Project Leader:	Kent

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1. PRODUCT DESCRIPTION

PLANET Technology Corp. provides a wireless solution that higher transmission speed, higher power, better performance designed for outdoor wireless application, the Wireless Outdoor Access Point (WNAP-7206).

Faster Speed and Widely Range

Adopting IEEE802.11n advanced MIMO technology; it provides reliable wireless network coverage, and incredible improvement in the wireless performance. As an IEEE802.11a/n compliant wireless device, the WNAP-7206 is able to give stable and efficient wireless performance for long distance application, while designed with IEEE802.11n standard and 1T1R MIMO technology makes it possible to deliver three times faster data rate up to 150Mbps than normal 802.11a wireless device. With its adjustable output power up to 500mW can extend the higher coverage up to 10Km for outdoor long range application.

Multiple Operating & Wireless Modes

It supports multiple wireless communication connectivity (AP / Client CPE / WDS PtP / WDS PtMP / Repeater / Universal Repeater), allowing for various application requirements that gives user more comprehensive experience when using WNAP-7206. It also helps user easily to build wireless network and extend the wireless range of existed wireless network.

Advanced Wireless Security

In aspect of security, besides 64/128/152-bit WEP encryption, the WNAP-7206 integrates WPA / WPA2, WPA-PSK / WPA2-PSK to secure and protect your wireless LAN. The wireless MAC filtering and SSID broadcast control to consolidate the wireless network security and prevent unauthorized wireless connection. To fulfill enterprise and various applications demand, the WNAP-7206 enhances security and management features such as multiple SSID support. It can create up to 4 virtual standalone AP with 4 different SSID according to individual security levels and encryption scheme of various wireless devices.

Perfect Solution for Outdoor Environment

The WNAP-7206 is perfectly suitable to be installed in outdoor environments and exposed locations. With its Outdoor Weatherproof case protection, the WNAP-7206 can perform normally under rigorous weather conditions including heavy rain and wind. With the proprietary Power over Ethernet (PoE) design, the WNAP-7206 can be easily installed in the areas where power outlets are not available. It is the best way

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using the WNAP-7206 to build outdoor wireless access applications between buildings on campuses, business, rural areas and etc.

Easy Installation & Management

With User-friendly Web UI and step by step Setup Wizard, it is easier to install, even through a user who never experiencing setup a wireless network. Furthermore, with SNMP-based management interface, the WNAP-7206 is easily to be managed and configured remotely.

2. PRODUCT FEATURES

- ➤ **Industrial Compliant Wireless LAN & LAN**
    - ■ Compliant with IEEE 802.11n wireless technology capable of up to 150Mbps data rate
    - ■ Backward compatible with 802.11a standard
    - ■ Equipped with 10/100Mbps RJ-45 Ports for LAN & WAN, Auto MDI/ MDI-X supported

- ➤ **Fixed-network Broadband Router**
    - ■ Supported connection types: Dynamic/ Static IP/ PPPoE/ PPTP/ L2TP/ Russia Dual-Access
    - ■ Support multiple sessions IPSec, L2TP and PPTP VPN pass-through
    - ■ Support Virtual Server, DMZ and Port Triggering for various networking applications
    - ■ Support DHCP Server, UPnP, Dynamic DNS

- ➤ **RF Interface Characteristics**
    - ■ Built-in 15dBi Directional Antenna
    - ■ High Output Power Up to 500mW with multiple adjustable transmit power control
    - ■ Reserve RP-SMA Type Connector

- ➤ **Outdoor Environmental Characteristics**
    - ■ Outdoor Weatherproof Enclosure, with built-in 15KV ESD and 4000V lightning protection
    - ■ Passive Power Over Ethernet Design
    - ■ Operating Temperature: -30~70°C

- ➤ **Multiple Operation & Wireless Mode**
    - ■ Multiple Operation Modes: Bridge, Gateway, Ethernet Converter
    - ■ Multiple Wireless Modes: AP, Client CPE(WISP), WDS PtP, WDS PtMP, Repeater, Universal Repeater
    - ■ Support Multiple SSID to allow users to access different networks through a single AP
    - ■ Support WMM (Wi-Fi Multimedia)

- ➤ **Secure Network Connection**
    - ■ Advanced security: 64/128/152-bit WEP, WPA/WPA2, and WPA-PSK/WPA2-PSK(TKIP/AES)
    - ■ Support NAT firewall features, with SPI function to protect against DoS attacks.

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- Support IP / Protocol-based access control and MAC Filtering

- ➢ **Easy Installation & Management**
  - User-friendly Web-based UI and SNMP-Based management
  - Quick Setup Wizard for easy configuration
  - Remote Management allows configuration from a remote site
  - Intelligent Antenna Alignment tool speeds up field deployment
  - System status monitoring includes DHCP Client, System Log

3. PRODUCT SPECIFICATION

3.1 MAIN COMPONENT

CPU :	Atheros AR7240
RF :	Atheros AR9280
DDR SDRAM :	32MB
Flash :	4MB

3.2 FUNCTIONAL SPECIFICATIONS

Product	**WNAP-7206** 150Mbps 802.11n Wireless Outdoor Access Point
Hardware	
Standard support	IEEE802.11a/n IEEE 802.3 IEEE 802.3u IEEE 802.3x
Chipset	Atheros AR7240+AR9280
Memory	32 Mbytes DDR SDRAM 4 Mbytes Flash
Button	Reset Button x 1
LED	Provides 4-level signal LED indicator
PoE	Passive PoE (Up to 60 meters)
Interface	Wireless IEEE802.11a/n LAN/WAN: 10/100Base-TX, Auto-MDI/MDIX x 1 Grounding Terminal x 1
Antenna	Internal (Default): 15dBi directional antenna (Dual-Polarization) ■ Horizontal: 60degree ■ Vertical: 14degree External (Option): RP-SMA Female type Connector ■ Switchable by Software

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	■ For External Antenna Mode, attach antenna before power on.
Data Rate	802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
	802.11n (20MHz): up to 72Mbps
	802.11n (40MHz): up to 150Mbp
Media Access Control	CSMA/CA
Modulation	Transmission/Emission Type: OFDM
	Data modulation type: OFDM with BPSK, QPSK, 16-QAM, 64-QAM
Frequency Band	5.180-5.240GHz
	5.745-5.825GHz

Default Opt. Channel	5.180GHz	CH36
	5.200GHz	CH40
	5.220GHz	CH44
	5.240GHz	CH48
	5.745GHz	CH149
	5.765GHz	CH153
	5.785GHz	CH157
	5.805GHz	CH161
	5.825GHz	CH165
	*The actual channels will vary based on the regulation in different regions and countries.	

Max. RF Output Power	802.11a: 27 ± 1dBm
	802.11n: 24 ± 1dBm
	CE: EIRP < 20dBm
Receiver Sensitivity	**802.11a:**
	54M: -77dBm/ 48M: -79dBm/ 36M: -83dBm/ 24M: -86dBm/ 18M: -91dBm/ 12M: -92dBm/ 9M: -93dBm/ 6M: -94dBm
	802.11n:
	150M: -73dBm/ 121.5M: -76dBm/ 108M: -77dBm/ 81M: -81dBm/ 54M: -84dBm/ 40.5M: -88dBm/ 27M: -91dBm/ 13.5M: -93dBm
Output Power Control	High (default)
	Middle
	Low
Power Consumption	4.767W
Power Requirements	Passive PoE 12V
	Pin 4,5 VDC+
	Pin 7,8 VDC-
Power Adapter	12V DC, 1A (switching)
Environment & Certification	
Operation Temp.	Temp.: -30~70°c, Humidity: 10%~90% non-condensing
Storage Temp.	Temp.: -40~70°c, Humidity: 5%~95% non-condensing
Enclosure	IP55 Outdoor Weatherproof design
	15KV ESD & 4000V Lightning Protection

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	Grounding Terminal Integrated
Regulatory	CE / FCC / RoHS
Software	
LAN	Built-in DHCP server supporting static IP address distributing
	Support UPnP, Dynamic DNS
	Support Flow Statistics
	IP & MAC Binding
	IP / Protocol-based Bandwidth Control
WAN	■ Static IP ■ Dynamic IP ■ PPPoE/ Russia PPPoE ■ PPTP/ Russia PPTP ■ L2TP/ Russia L2TP ■ BigPond Cable
VPN Pass through	■ PPTP ■ L2TP ■ IPSec
Operating Mode	■ Standard AP (Wireless AP) ■ AP Router (Wireless Broadband Router) ■ AP Client Router (WISP Client Router)
Firewall	NAT firewall with SPI (Stateful Packet Inspection)
	NAT with ALG (Application Layer Gateway)
	Built-in NAT server supporting Port Triggering, Virtual Server, and DMZ
	Built-in firewall with IP address/ MAC/ DNS filtering
	Support ICMP-FLOOD, UDP-FLOOD, TCP-SYN-FLOOD filter, DoS protection
Wireless Mode	■ AP ■ Client ■ WDS PTP ■ WDS PTMP ■ WDS Repeater (AP+WDS) ■ Universal Repeater (AP+Client)
Channel Width	20MHz / 40MHz
Wireless Isolation	Enable it to isolate each connected wireless clients, to let them cannot access mutually.
Wireless Security	64/128/152-bits WEP, WPA, WPA-PSK, WPA2, WPA2-PSK
	Wireless MAC address filtering
	Enable/Disable SSID Broadcast
Multiple SSID	Up to 3
Max. Wireless Client	25
Max. WDS AP	4
Max. Wired Client	60
WMM	Support Wi-Fi Multimedia

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| NTP	Network Time Management
Management	Web-based (HTTP) management interface
	Supports SNMPv1/v2 agent with MIB-II
	Remote management
	SNTP time synchronize
	Easy firmware upgrade
	Configuration Backup & Restore
	DHCP Client List
Diagnostic tool	System Log supports auto mail and save to local host
	Ping Watch Dog allows you to continuously monitor the particular connection between the device and a remote host.
	Throughput Monitor provide real-time wireless throughput information
	Speed Test helps to test the connection speed

3.3 Physical Specification

Dimensions
   250 x 85 x 60.5(W x D x H)

Weight
   386g

Rear Panel - LED
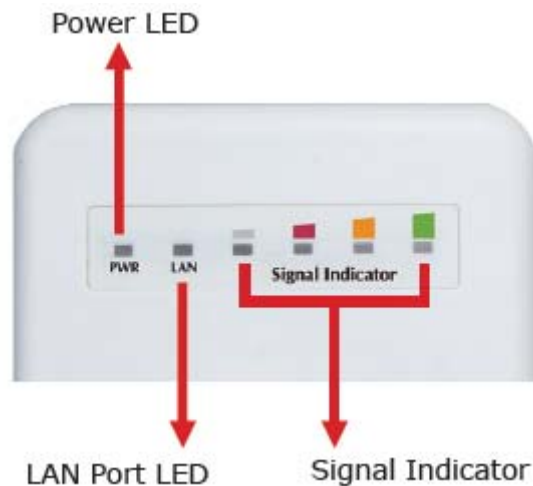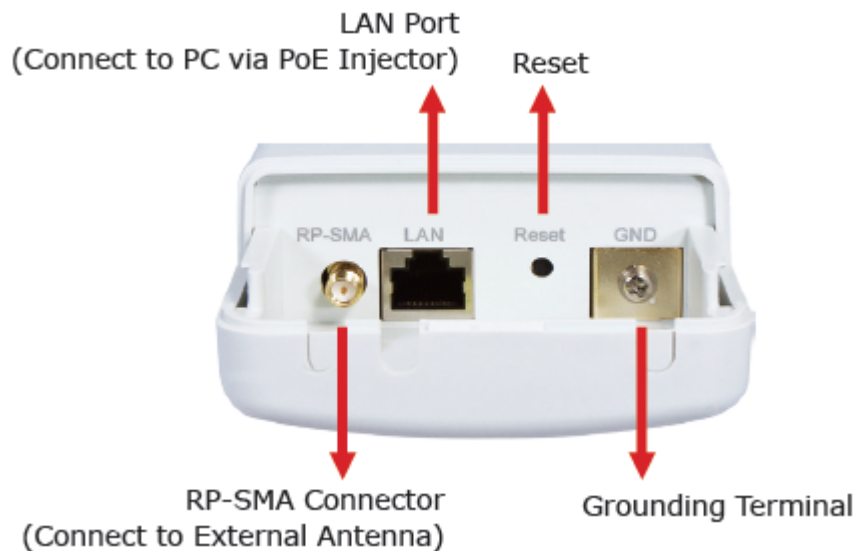

LED definition

LED	State	Meaning
Power	On	System On
	Off	System Off

Signal Indicator	On	Indicates the wireless signal strength of remote AP
(Client/Repeater Mode)	Off	No remote wireless signal
WAN	On	Port linked.
	Off	No link.
	Blinking	Data is transmitting or receiving on the WAN interface.
LAN	On	Port linked.
	Off	No link.
	Blinking	Data is transmitting or receiving on the LAN interface.

Rear Panel – Port & Connector

Button definition

Active	Time
Reset	Press and hold the Reset button until Wireless Signal Strength LEDs flash, and then the AP will reboot.

3.4 Environmental Specification

Operating
    Temperature: -30°c ~70°c
    Relative Humidity: 10% ~ 90 % non-condensing

Storage
    Temperature: -40°c ~70°c

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Relative Humidity: 5% ~ 95 % non-condensing

3.5 BASIC PACKAGING

- WNAP-7206 x 1
- Power Adapter x 1
- PoE Injector x 1
- Ethernet Cable x 1
- Mounting Tie x 2
- Quick Installation Guide x 1
- CD (User's Manual & Quick Installation Guide) x 1

3.6 PACKAGING INFORMATION

Dimension: 303 x 123 x 108mm
Weight: 750g (gross weight)