

IEEE802.11a/n 5GHz Wireless Outdoor AP

WNAP-7205



Presentation Outline

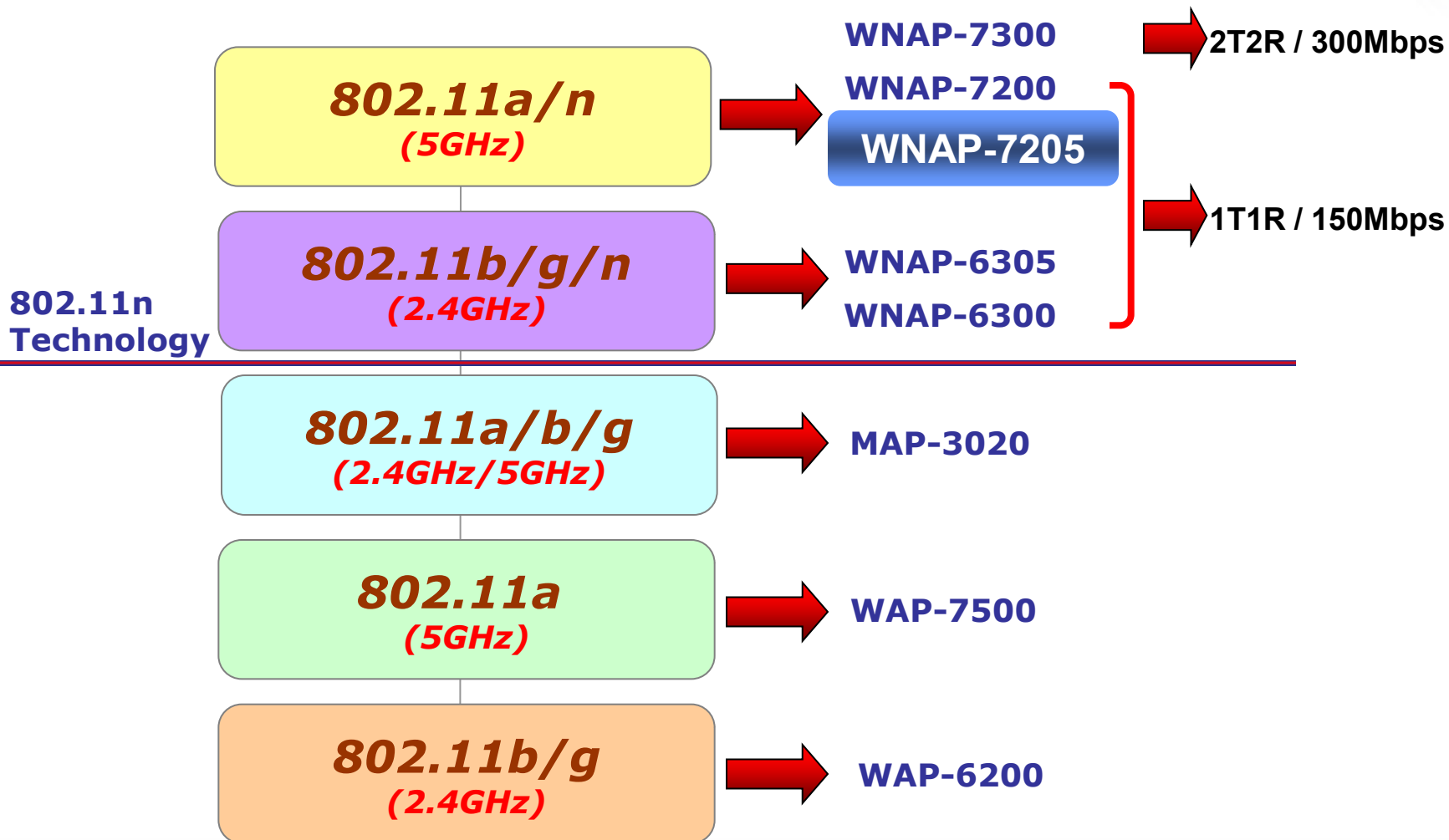
- ◆ **Product Position**
- ◆ **Product Overview**
- ◆ **Product Features**
- ◆ **Applications**
- ◆ **Management – Web UI**
- ◆ **Comparison – Internal**
- ◆ **Comparison – External**
- ◆ **Appendix**





Product Position

◆ PLANET Outdoor Wireless LAN Product Classification



Quick Review – 5GHz 802.11n Outdoor

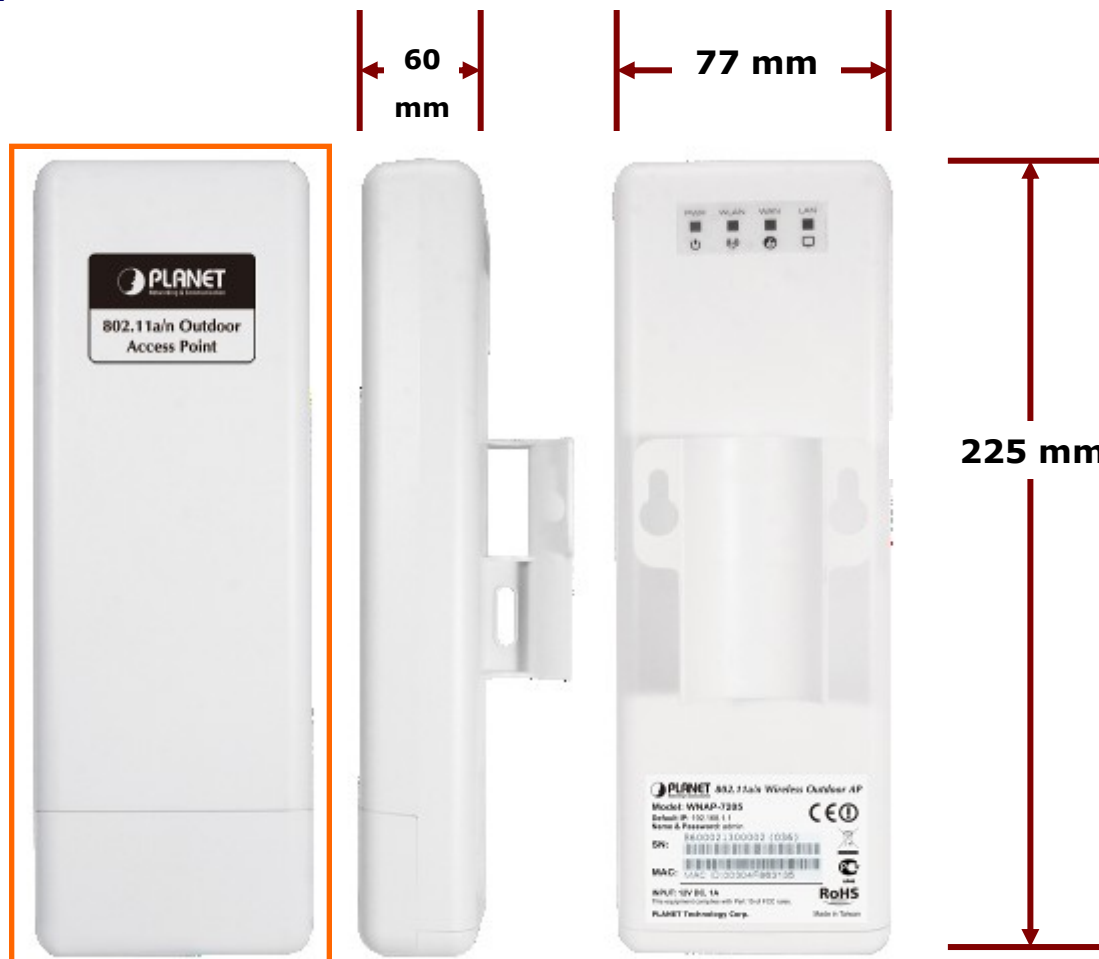
	WNAP-7200	WNAP-7205	WNAP-7300
Frequency	5.180GHz ~ 5.825GHz		5.470~5.850GHz
Standard	802.11a/n		
MIMO System	1T1R		2T2R
Max. Data Rate	150Mbps		300Mbps
Built-in Antenna	Built-in 18dBi	Built-in 16dBi	Built-in 16dBi Dual-polarity
External Antenna Connector	No	RP-SMA x1	RP-SMA x2
Max. TX Power	23dBm (200mW)	25dBm (300mW)	26dBm (400mW)
Operating Temp.	0~55°C	-20~70°C	-20~70°C
LAN	1 x RJ-45	2 x RJ-45 (LAN/WAN)	2 x RJ-45 (LAN x2)
Wireless Mode	AP, Client AP+WDS Bridge (4) WISP	AP, Client AP+WDS Bridge (4) WISP Universal Repeater	AP, Client AP+WDS Bridge (4) WISP

Product Overview

◆ H/W Design

✓ **IP-55** case

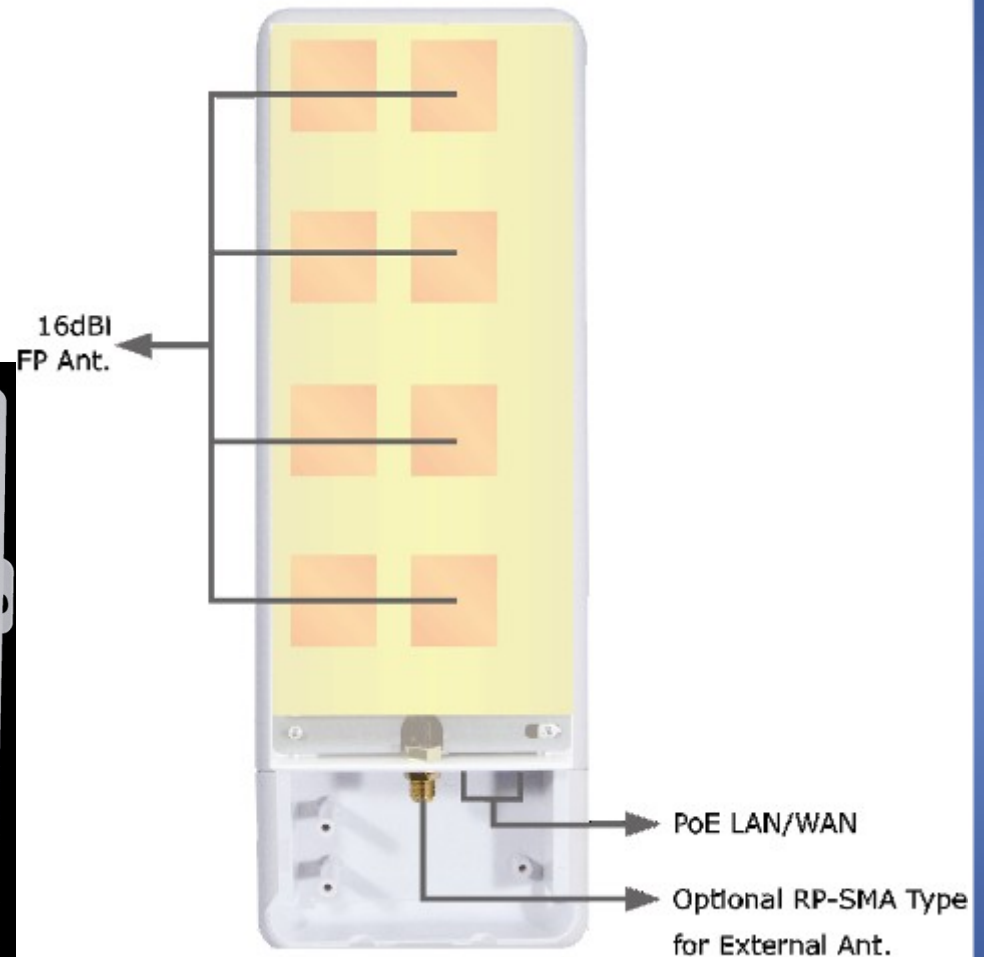
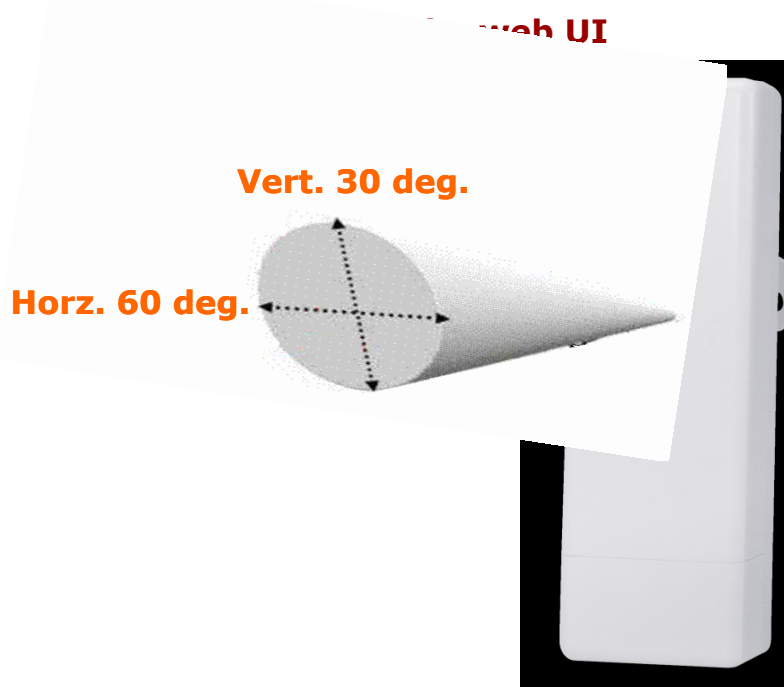
IP-55 Protection ←



Product Overview

◆ H/W Design

- ✓ Internal Ant.: Built-in **5GHz 16dBi** patch antenna
Horizontal : 60 degree
Vertical : 30 degree
- ✓ External Ant.: Optional **RP-SMA x1**



Product Overview

◆ Rear Panel

- ✓ LED
- ✓ Port & Connector

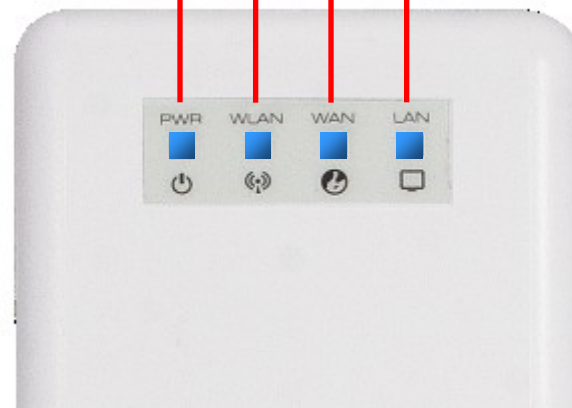
RP-SMA Connector



LAN Port

WAN Port

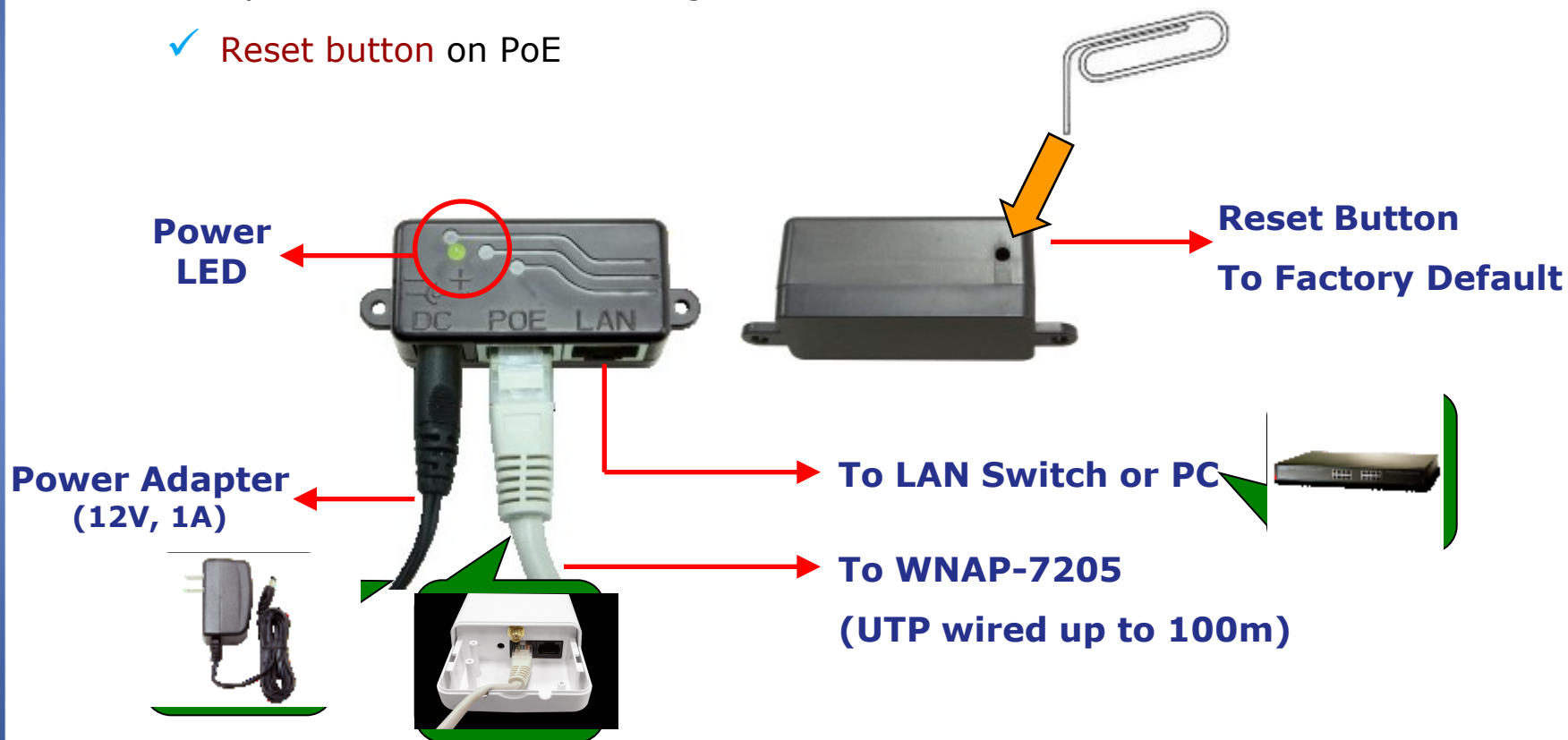
PWR LED **WLAN LED** **WAN LED**
LAN LED



Product Overview

◆ Proprietary PoE interface

- ✓ Offer Power Supply (DC) with PoE (Power over Ethernet) injector
- ✓ Up to 100 meters UTP wiring
- ✓ Reset button on PoE



Product Overview

◆ Installation

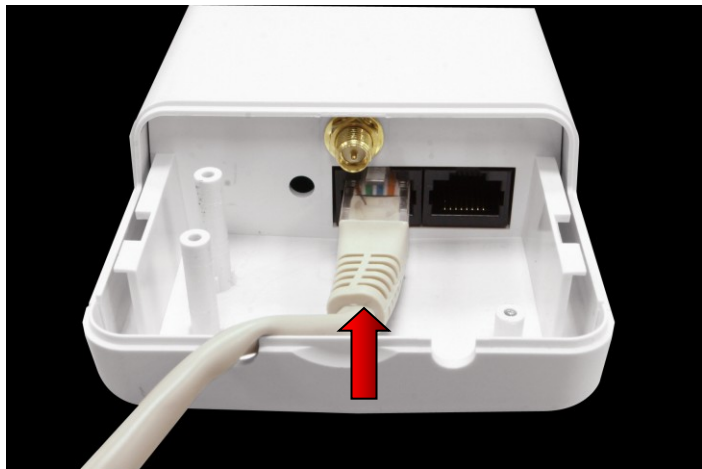
- ✓ STEP 1 : Push the latch in the bottom of WNAP-7205 to remove the sliding cover.



Product Overview

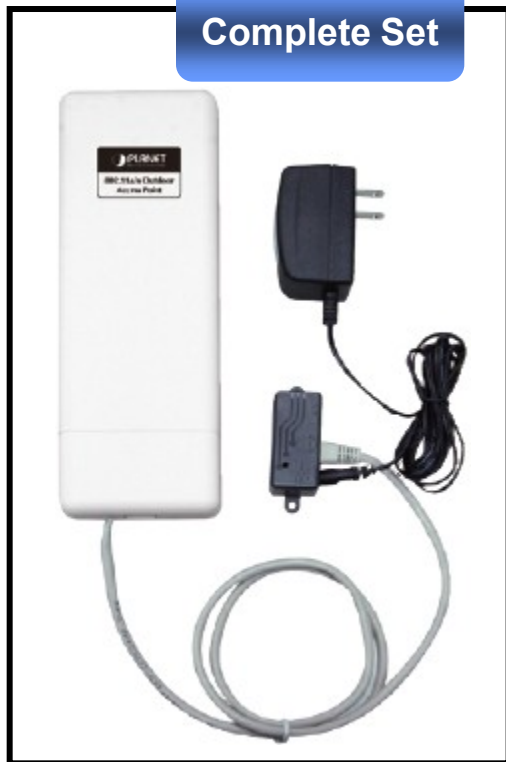
◆ Installation

- ✓ STEP 2 : Plug the RJ-45 Ethernet cable into the LAN Port, then slide the cover back to seal the bottom of the WNAP-7205.



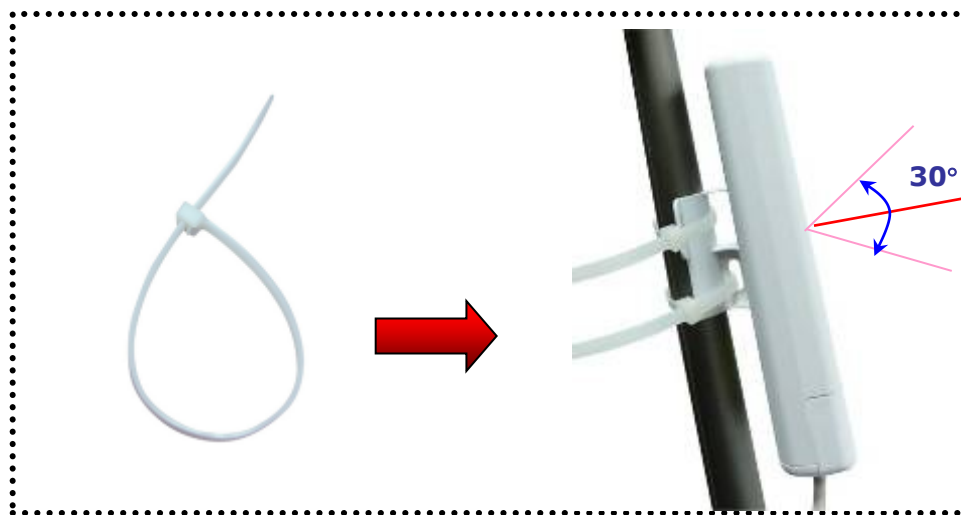
Product Overview

Complete Set



◆ Installation Diagram

- ✓ Strongly suggest using **STP cable** (part no. **CB-STP-25**)
- ✓ Consider to install **ELA-100** avoiding thunder strike
- ✓ **Avoiding RJ45 connector from water**
- ✓ Fix **WNAP-7205** in optimum location



Product Features



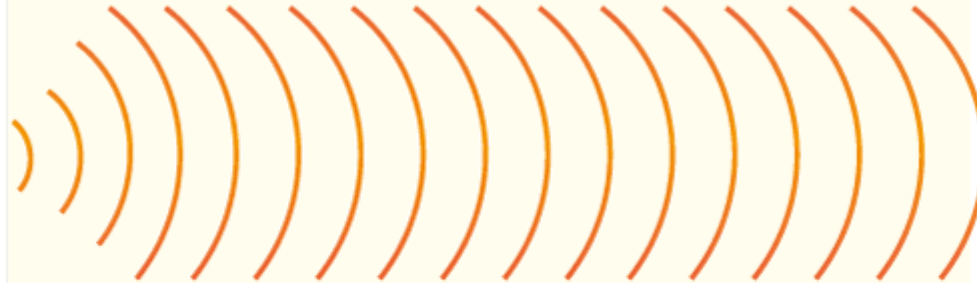
- ◆ **High Power, Long Distance, Better Performance**
- ◆ **Wireless bridge Max connection distance up to **10Km** in the clear Line of Sight**

Product Features

5GHz
Up to **24**
non-overlapping
channels



More free channels, less interference, better connections



Avoids Interference

2.4GHz
Only **3**
non-overlapping
channels



Wi-Fi



Cordless Phone



Bluetooth Device



Microwave Ovens



Baby Monitors

*The 24 channels are defined by the theory. The actual application will vary based on the regulation in different regions and countries.

- ◆ **More free channels, less interference, better connections**
- ◆ **Up to **24** non-overlapping channels (will vary based on the regulation in different regions)**

Product Features

◆ Hardware Design

- ✓ **IP-55** , Water-proof Enclosure
- ✓ **-20~70 Degree C** wide range of operating temperature
- ✓ **Power over Ethernet** design (with proprietary injector)
- ✓ **Reset Button on PoE Injector**

◆ RF interface

- ✓ **IEEE 802.11a/n** standards compliant
- ✓ **High output power up to 300mW** with multiple adjustable transmit power control
- ✓ **Data rate up to 150Mbps** with 802.11n mode
- ✓ **Built-in 16dBi** directional antenna
- ✓ **Reserve RP-SMA Type Connector** allows for stronger antenna upgrades

Product Features

- ◆ **Multiple-Operation Mode**
 - ✓ **Bridge**
 - ✓ **Gateway (Router)**
 - ✓ **Ethernet Converter (WISP)**
- ◆ **Router and AP Application**
- ◆ **IGMP and 802.1d (Spanning Tree) support**
- ◆ **Firewall, DHCP Server, UPnP support**
- ◆ **VPN Pass-through (PPTP/L2TP/IPSec)**

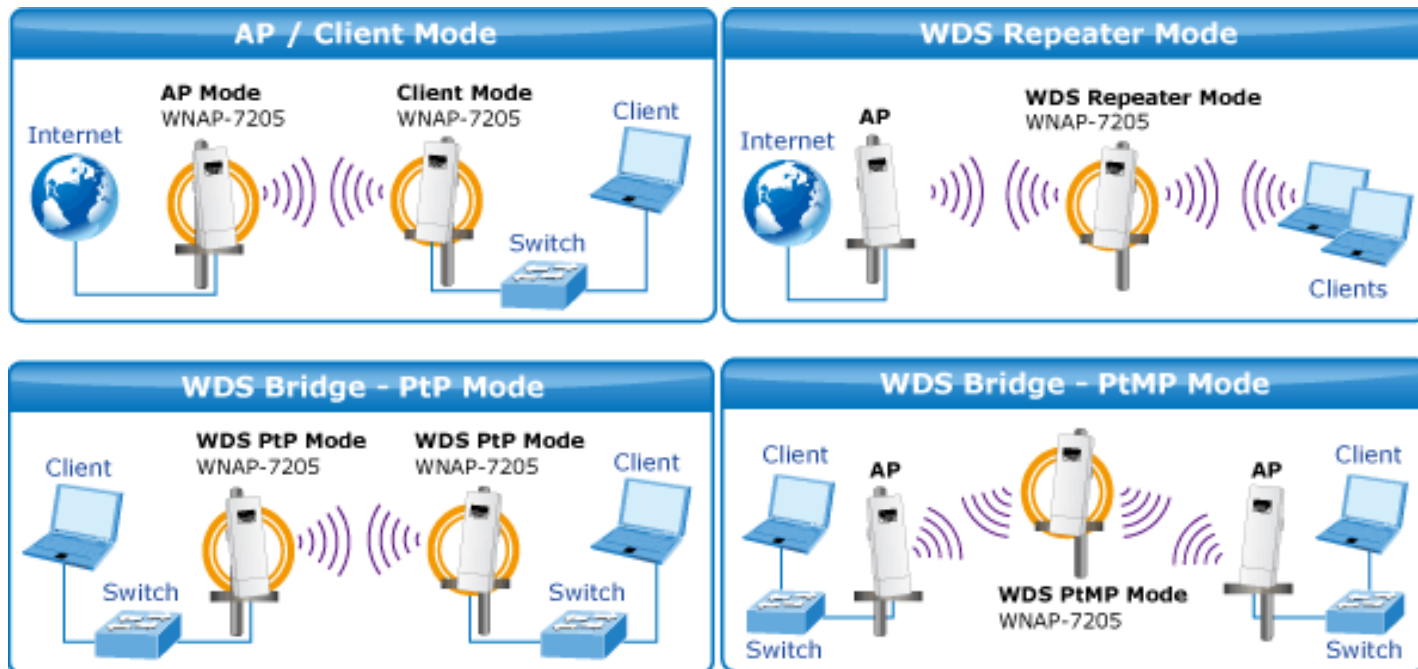
Product Features

◆ Wireless

✓ Operation Mode

- **AP, Client CPE (WISP), Repeater (AP+WDS), Universal Repeater (AP+Client), WDS PtP, WDS PtMP,**

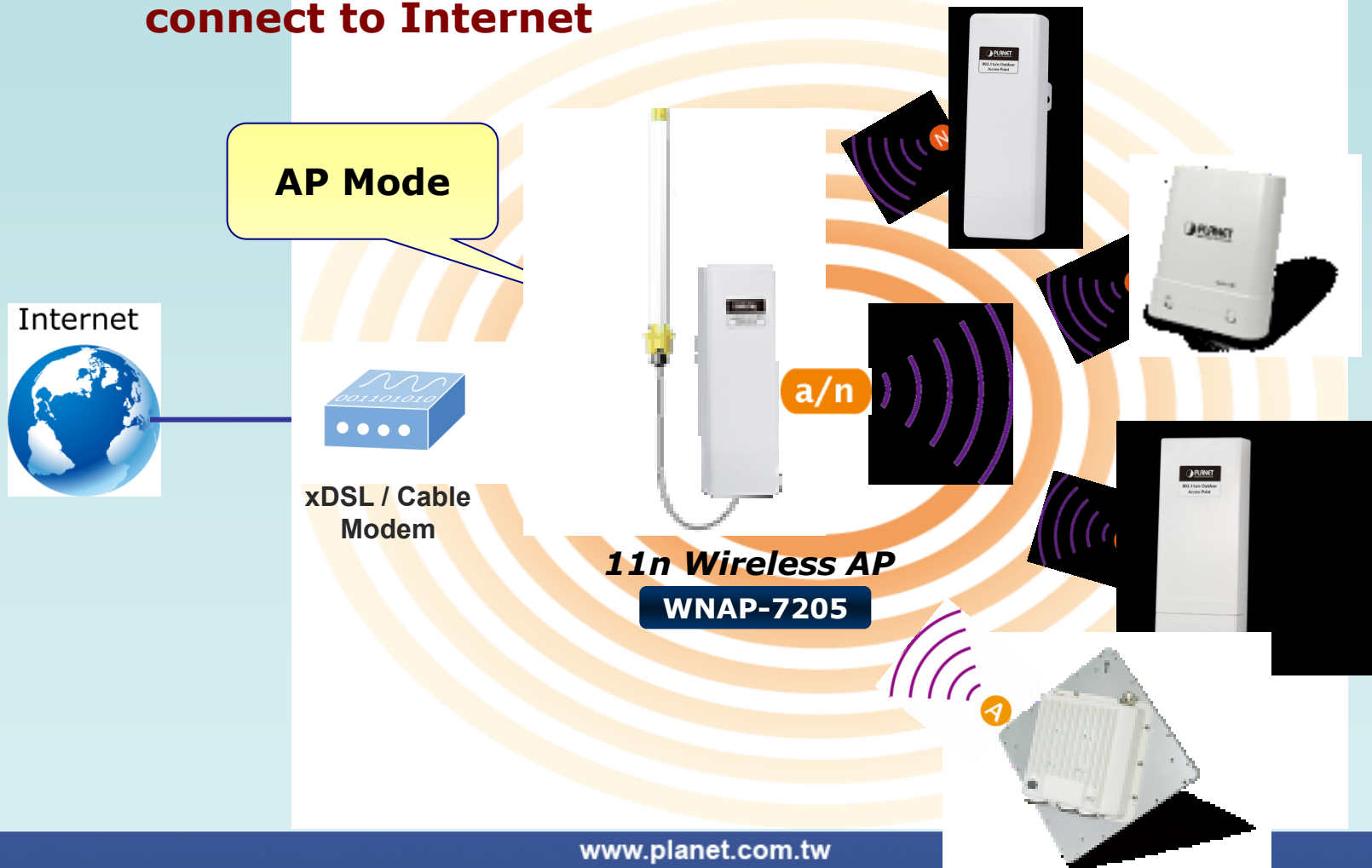
✓ WDS up to **4** remote APs



Operation Mode

◆ Access Point

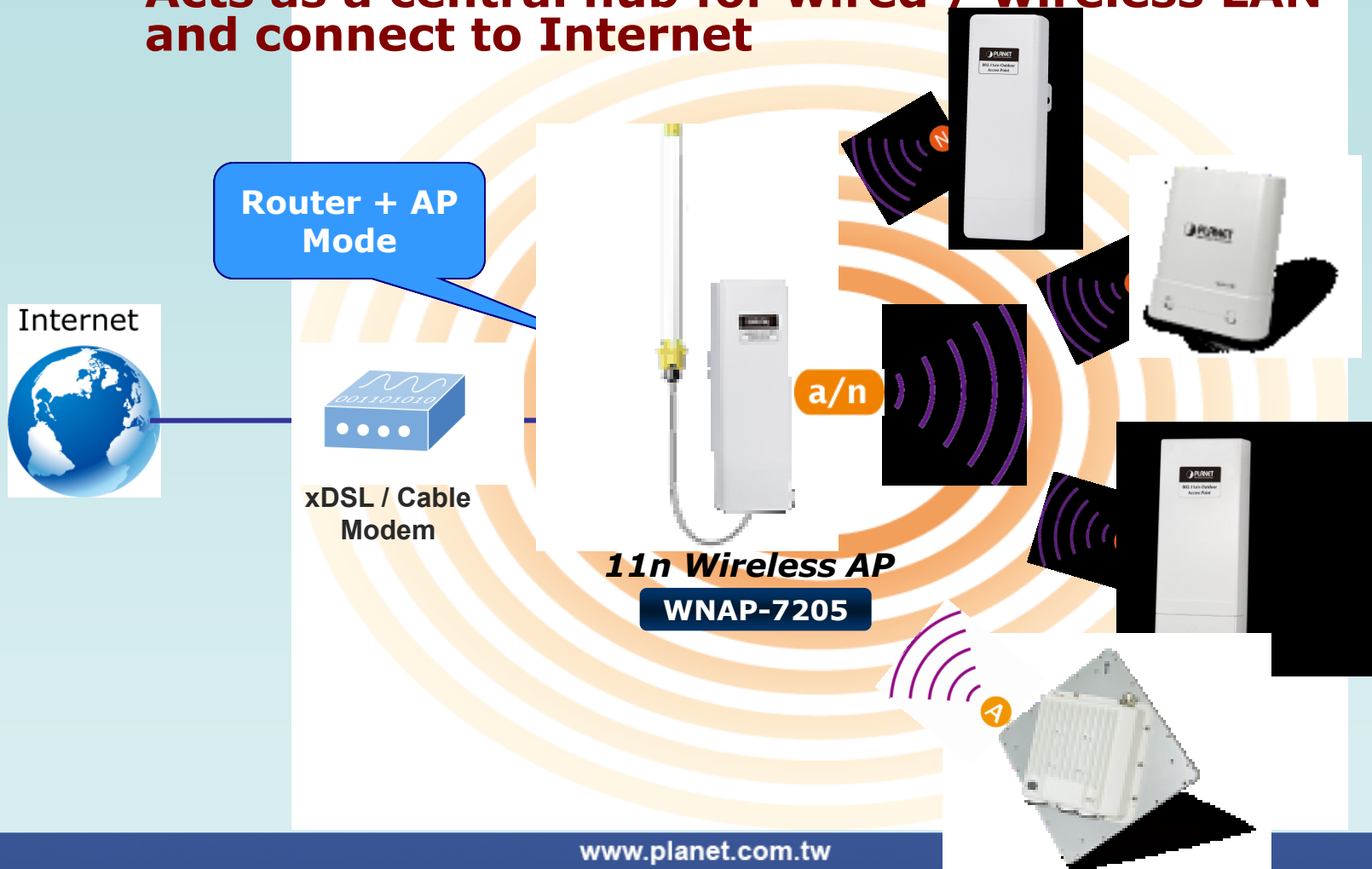
- ✓ Acts as a central hub for wired / wireless LAN and connect to Internet



Operation Mode

◆ Router + Access Point

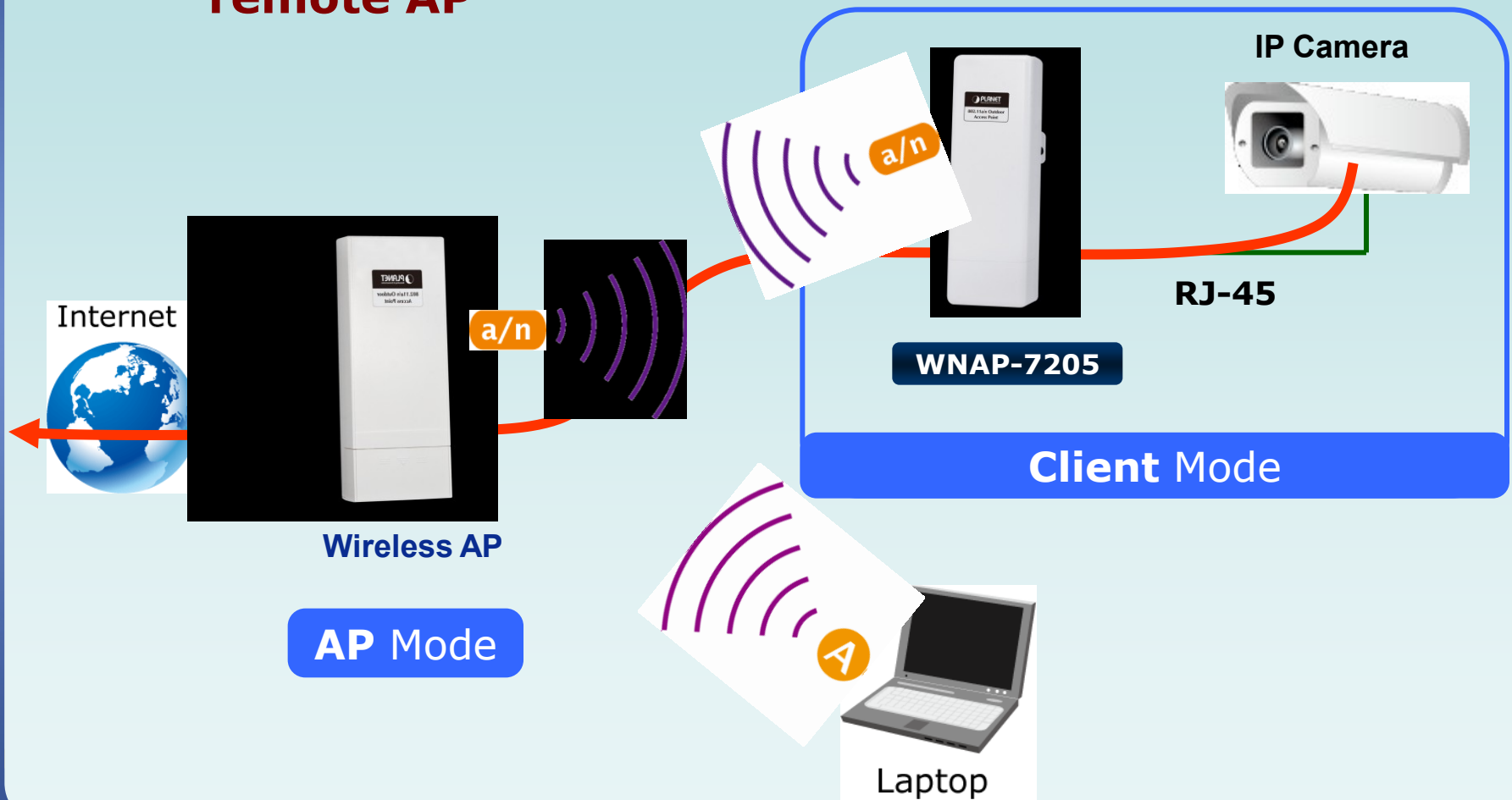
- ✓ Acts as a central hub for wired / wireless LAN and connect to Internet



Operation Mode

◆ Client

- ✓ Acts as a wireless client connecting with the remote AP

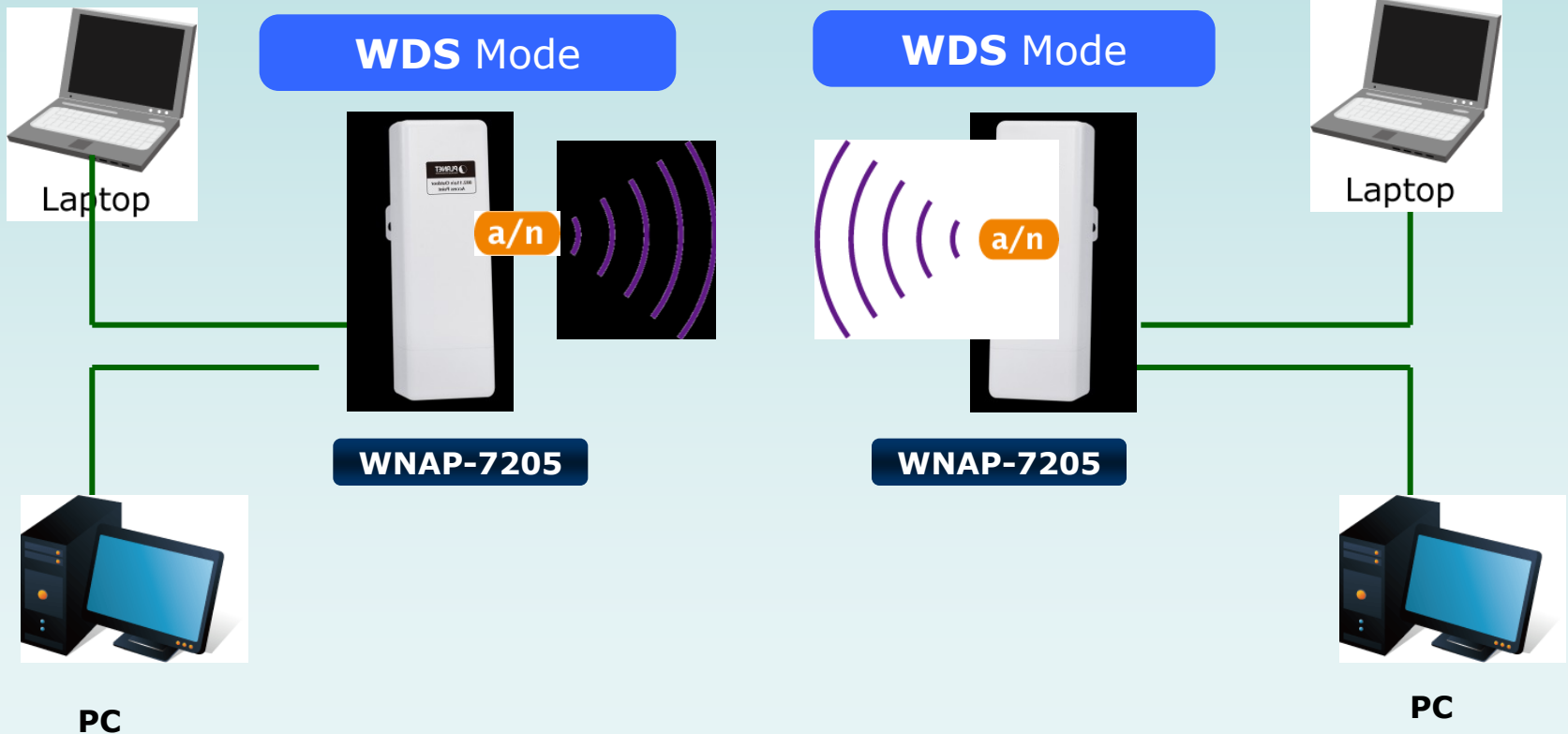




Operation Mode

◆ WDS Mode (Bridge)

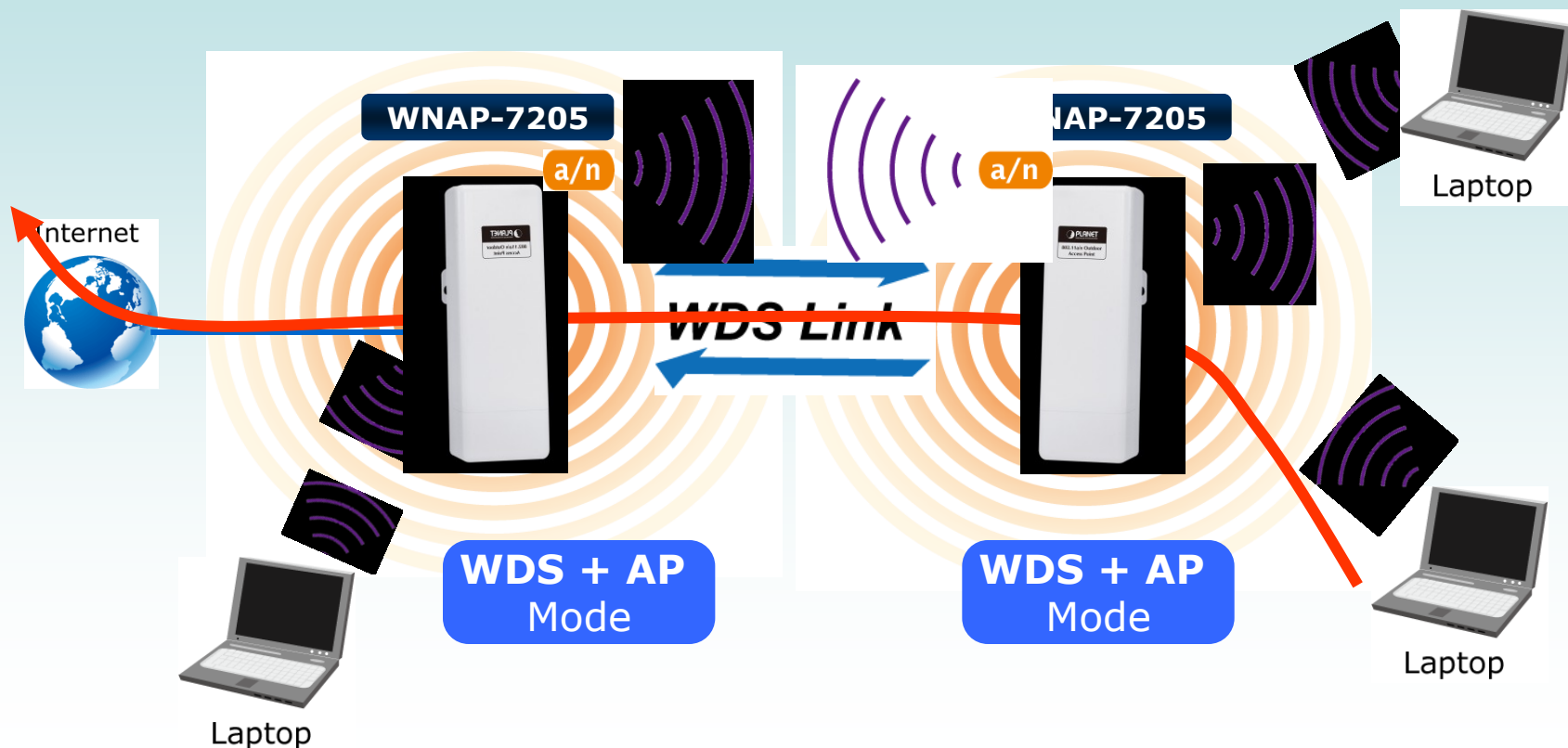
- ✓ **Two APs in two remote locations connect to each other wirelessly**



Operation Mode

◆ WDS + AP Mode (Repeater)

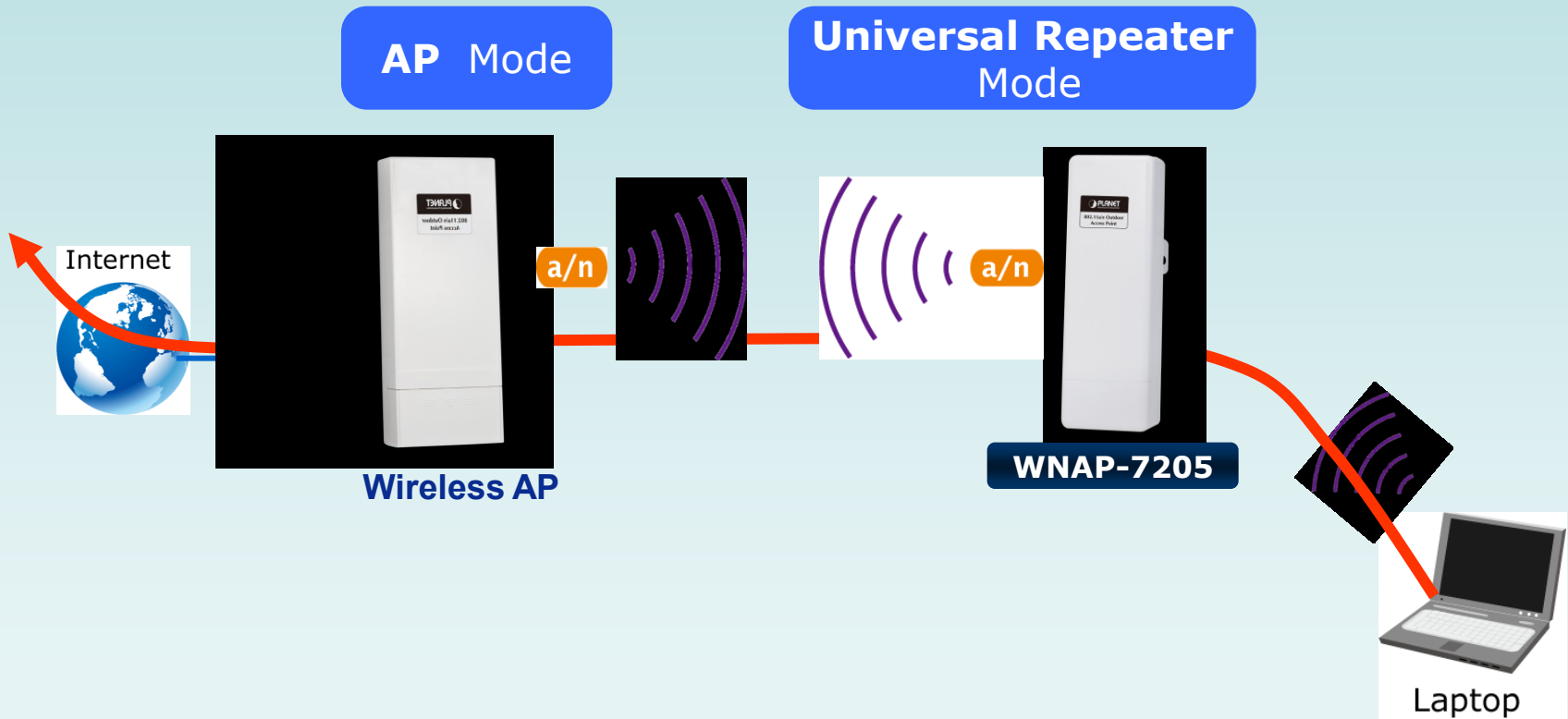
- ✓ Bridge two APs and provides access for wireless clients at the same time



Operation Mode

◆ Universal Repeater Mode

- ✓ Extends the coverage of AP, even if your AP/Router doesn't have WDS function



Product Features

◆ Wireless Security

- ✓ SSID Broadcast & Hide
- ✓ Multiple-SSID, Hide & Isolation
- ✓ WMM (Wireless QoS)
- ✓ Wireless Security
 - 64/128-bit WEP
 - 802.1X Authentication
 - WPA, WPA2
 - WPA-PSK(TKIP), WPA2-PSK(AES)
- ✓ Max. Wireless Client up to **25 STAs**
- ✓ Output Power Control (**Range 1~100, default:100**)

Product Features

◆ Router/Firewall/Management

✓ WAN Connection Types:

- Static IP
- DHCP (Dynamic IP)
- PPPoE
- PPTP
- L2TP

✓ MAC/IP/Port/Content Filtering

✓ VPN Passthrough: PPTP, L2TP, IPSec

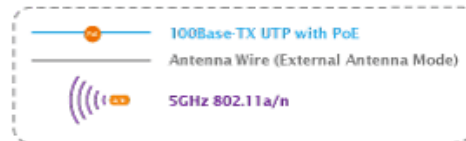
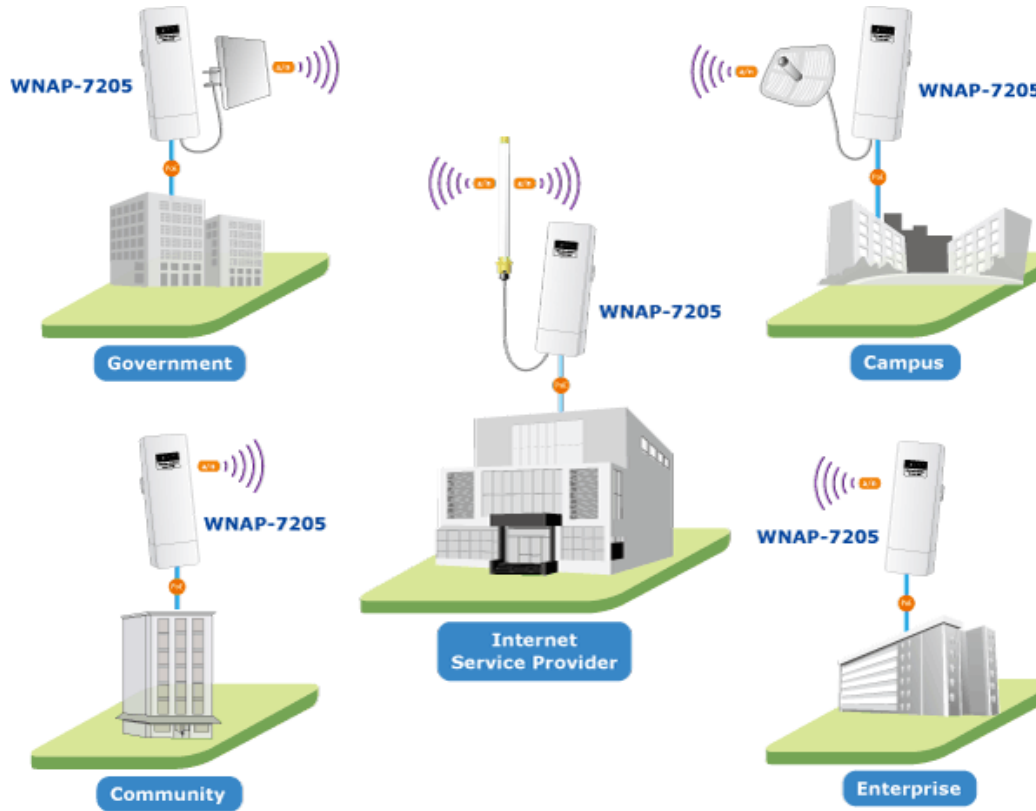
✓ Support DMZ, DDNS

✓ Web-based UI, Setup Wizard and Remote Management for easy configuration

✓ System Log for tracking system status

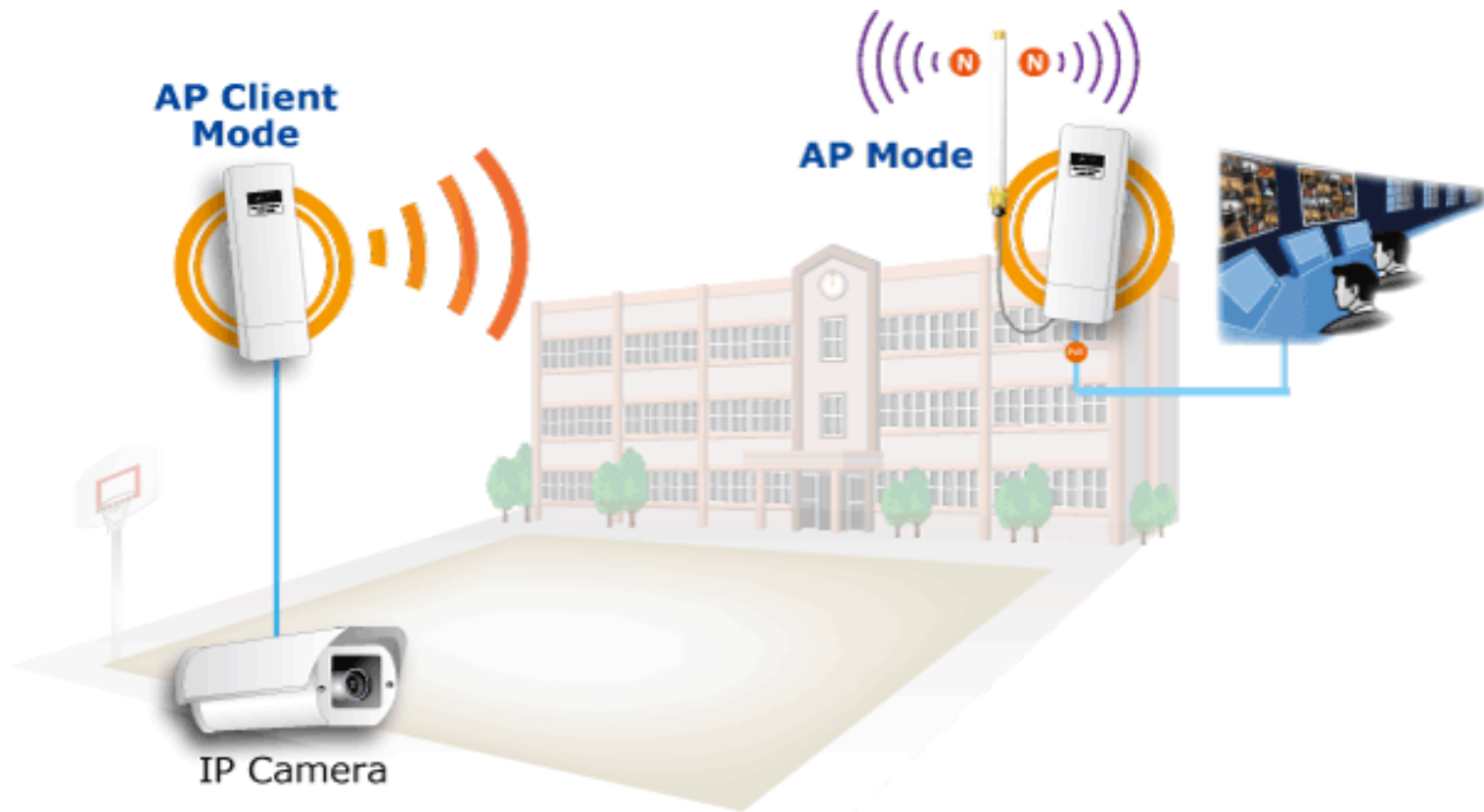
Applications

◆ Enterprise - Network bridging



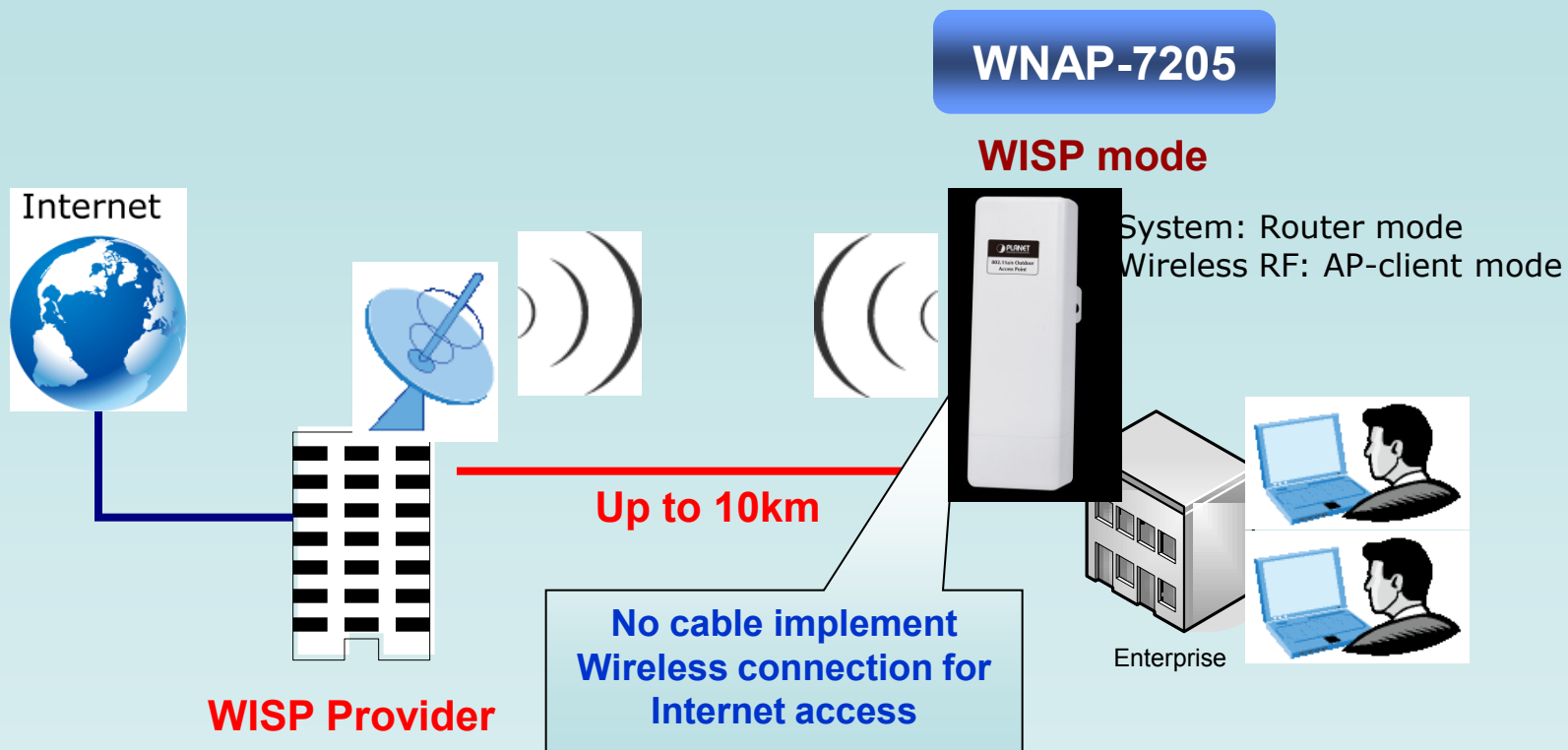
Applications

◆ Campus - Surveillance



Applications

◆ WISP – Cost effective CPE connectivity



Web UI - Setup Wizard



Setup Wizard

This Router is for home networking. The 'Setup Wizard' will guide you to configure the router to connect to your ISP(Internet Service Provider).

Step 1. Configure Internet Connection

WAN Connection Type: **DHCP (Auto Config)** ▾

DHCP Mode

Host Name (optional)

Back

Next

Cancel

Setup Wizard

This Router is for home networking. The 'Setup Wizard' will guide you to configure the router to connect to your ISP(Internet Service Provider).

Step 2. Configure Wireless Settings

Wireless Settings

Network Mode	802.11B/G/N ▾
Frequency (Channel)	AutoSelect ▾ Current Channel: 11
Network Name (SSID)	default <input type="text"/>
Channel BandWidth	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
Security Mode	Disable ▾
	Disable OPENWEP SHAREDWEP WPA-PSK WPA2-PSK

Back Next

Web UI - Basic Wireless Settings

Basic Wireless Settings

You could configure the minimum number of Wireless settings for communication, such as Network Name (SSID) and Channel. The Access Point can be set simply with only the minimum setting items.

Wireless Network	
Wireless On/Off	<input type="button" value="Wireless OFF"/> Current Status:Radio ON
Antenna Switch	<input type="radio"/> External <input checked="" type="radio"/> Internal
Wireless Mode	AP
Wireless Band	802.11a/n mixed
SSID	default
Multiple SSID1	<input type="text"/> Hide SSID <input type="checkbox"/> Isolation <input type="checkbox"/>
Multiple SSID2	<input type="text"/> Hide SSID <input type="checkbox"/> Isolation <input type="checkbox"/>
Multiple SSID3	<input type="text"/> Hide SSID <input type="checkbox"/> Isolation <input type="checkbox"/>
Broadcast Network Name (SSID)	<input checked="" type="radio"/> Enabled <input type="radio"/> Disabled
AP Isolation	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
MBSSID AP Isolation	<input type="radio"/> Enabled <input checked="" type="radio"/> Disabled
BSSID	00:30:4F:1D:DC:84
Frequency (Channel)	AutoSelect Current Channel: 161
HT Physical Mode	
Operating Mode	<input checked="" type="radio"/> Mixed Mode <input type="radio"/> Green Field
Channel BandWidth	<input type="radio"/> 20 <input checked="" type="radio"/> 20/40
Guard Interval	<input type="radio"/> Long <input checked="" type="radio"/> Auto
MCS	Auto

Internal/External Antenna Switch

Multiple-SSID, up to 3 supported

Up to 24 Channels

Web UI - Status



Access Point Status

This page show the current status and some basic settings of the device.

System Information

Firmware Version	1.0.24-AN
System Up Time	1 hour, 51 mins, 12 secs
Operation Mode	Gateway Mode

Repeater Information

Repeater Status	Connected
Repeater Device	WNAP-7205
Repeater Mac Address	00:30:4F:d0:2b:a9
Repeater RSSI	-39 dBm

→ **Wireless Connection Status**

Wireless Information

Status	Radio ON
Mode	AP Client
SSID	AP
Channel	149
Encryption	OPEN
BSSID	00:30:4F:1D:DC:B4

WAN Information





Connected Type	DHCP
WAN IP Address	192.168.1.10
Subnet Mask	255.255.255.0
Default Gateway	192.168.1.1
DNS1	192.168.1.1
DNS2	192.168.1.1
MAC Address	00:30:4E:1D:DC:B8

→ **WAN Connection Status**



LAN Information

DHCP Server	Disabled
LAN IP Address	10.10.10.254
Subnet Mask	255.255.255.0
MAC Address	00:30:4F:1D:DC:B4

Comparison - Internal












Model	WNAP-7200	WNAP-7205	WNAP-7300	WAP-7500
Features				
Flash/RAM	2MB/32MB	4MB/16MB	8MB/32MB	16MB/32MB
Ethernet Port	1*10/100Mbps	2*10/100Mbps (LAN/WAN)	2*10/100Mbps (LAN)	1*10/100Mbps
PoE	Passive	Passive	Passive	802.3af
Wireless Interface	802.11a/n	802.11a/n	802.11a/n	802.11a
Wireless Antenna	Built-in 18dBi	Internal: Built-in 16dBi External: RP-SMA *1 *Switchable by web UI	Internal: Built-in 16dBi (Dual polarity) External: RP-SMA *2 *Switchable by web UI	Internal: Built-in 23dBi External: N-Type *1 *Dual-Radio
Operating Temp.	0~55°C	-20~70°C	-20~70°C	-30~70°C
Wireless Speed	150Mbps	150Mbps	300Mbps	54Mbps
Output Power	23dBm (200mW)	25dBm (300mW)	26dBm (400mW)	FCC: 24dBm (250mW) ETSI: 30dBm EIRP(1W)
Encryption	64/128-bit WEP, WPA1/2, WPA- PSK1/2,802.1X	64/128-bit WEP, WPA1/2, WPA-PSK1/2,802.1X	64/128/152-bit WEP, WPA1/2, WPA-PSK1/2,802.1X	64/128/152-bit WEP, WPA1/2, WPA-PSK1/2,802.1X
VPN Pass-through	No	Yes	No	No
Operating Mode	AP, Client, WDS, AP+WDS, WISP	AP, Client, WDS, AP+WDS, Universal Repeater, WISP	AP, Client, WDS, AP+WDS, WISP	AP, Client, WDS, Relay
SNMP	No	No	Yes	Yes
Multiple-SSID	Yes (8)	Yes (4)	No	No

Comparison - External

Model	PLANET/WNAP-7205	Ubiquiti/Bullet M5HP
Features		
Ethernet Port	2*10/100Mbps(LAN/WAN)	1*10/100Mbps
Wireless Interface	802.11a/n, 1T1R, 150Mbps	802.11a/n, 1T1R, 150Mbps
Frequency Band	5.180GHz ~ 5.825GHz	5.745 ~ 5.825GHz
Output Power	25dBm (300mW)	25dBm (300mW)
Wireless Antenna	Built-in 16dBi patch antenna H-plane: 60 degree V-plane: 30 degree 1 x RP-SMA type Connector (*Switchable by web UI)	1 x N-type Connector
Wireless Encryption	64/128-bit WEP, WPA1/2, WPA-PSK1/2,802.1X	64/128-bit WEP, WPA1/2, WPA-PSK1/2,802.1X
Wireless Mode	AP, Client, WDS, AP+WDS, WISP, Universal Repeater	AP, Client, WDS, AP+WDS, WISP
WAN Type	Static/DHCP Client/PPPoE/PPTP/L2TP	Static/DHCP Client/PPPoE
Firewall/Access Control	Yes	Yes
VPN Pass-through	Yes	No
Multiple SSID	Yes (up to 4, included default)	No
Operating Temp.	-20~70°C	-40~80°C

Accessories **Antennas**

◆ 5GHz Antennas

Model		ANT-OM10A	ANT-SE17A	ANT-FP18A	ANT-FP23A
		Feature			
Antenna Type		Omni-directional General purpose	Uni-directional Sector	Uni-directional Flat panel	Uni-directional Flat panel
Gain (dBi)		10 dBi	16.5 dBi	18 dBi	23 dBi
Beamwidth degree	Horz.	360 	120 	10 	9 
	Vert.	6 	10 	10 	9 
Connector		N-Type	N-Type	N-Type	N-Type
Mounting Type		Mast or Wall Mount	Mast or Wall Mount	Mast or Wall Mount	Mast or Wall Mount

Appendix

◆ Related Products

- ✓ **CB-STP-25 (25M STP Cat5 Cable)**
- ✓ **ELA-100 (Ethernet Lightning Arrest Box)**
- ✓ **WL-LTNA (5GHz Lightning Arrester)**



ELA-100



WL-LTNA

Appendix

◆ Target Market

- ✓ **Telecom to Business**
- ✓ **Telecom to Residential**
- ✓ **Building to Building**
- ✓ **Public Area Access**
- ✓ **Hotel/Resort/Campus**
- ✓ **Small Wireless ISP**

◆ Benefit

- ✓ **Flexible in installation**
- ✓ **Flexible in wireless coverage**
- ✓ **Saving wiring cost**
- ✓ **Wireless Mobility**

◆ Target Customer

✓ **Who buy the products**

- WNAP-7200
- WNAP-7300
- WAP-7500
- MAP-2000/3000 Series

✓ **Who ever ask about**

- WISP
- Outdoor Access Point
- Low Cost Access Point

Q & A

- ◆ Which one supported Multiple-SSID?

1



WNAP-7200

2



WNAP-7205

3

WNAP-7300

4

WAP-7500

Q & A

- ◆ Which one compatible with WNAP-7205?

1

ANT-OM8

2



ANT-OM10A

3

WL-LTN

4



WL-LTNA



ACTIVATING IP POWER