PLANET Networking & Communication

Pioneer of IP Innovation

802.11a/n Wireless LAN Outdoor AP

WNAP-7350

www.planet.com.tw

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Presentation Outline

- Product Position
- Product Overview
- Product Benefit
- Product Features
- Management – Web UI
- Applications
- Product Comparison
- Appendix
  - ✓ Outdoor Antennas
  - ✓ Antenna Connection
  - ✓ Accessories

Product Position – Outdoor Wireless

2.4GHz
5GHz
2.4G/5GHz

New

WNAP-7300

WNAP-7350

11n
300Mbps

WNAP-6306

WNAP-6305

WNAP-7205

11n
150Mbps

WAP-7500

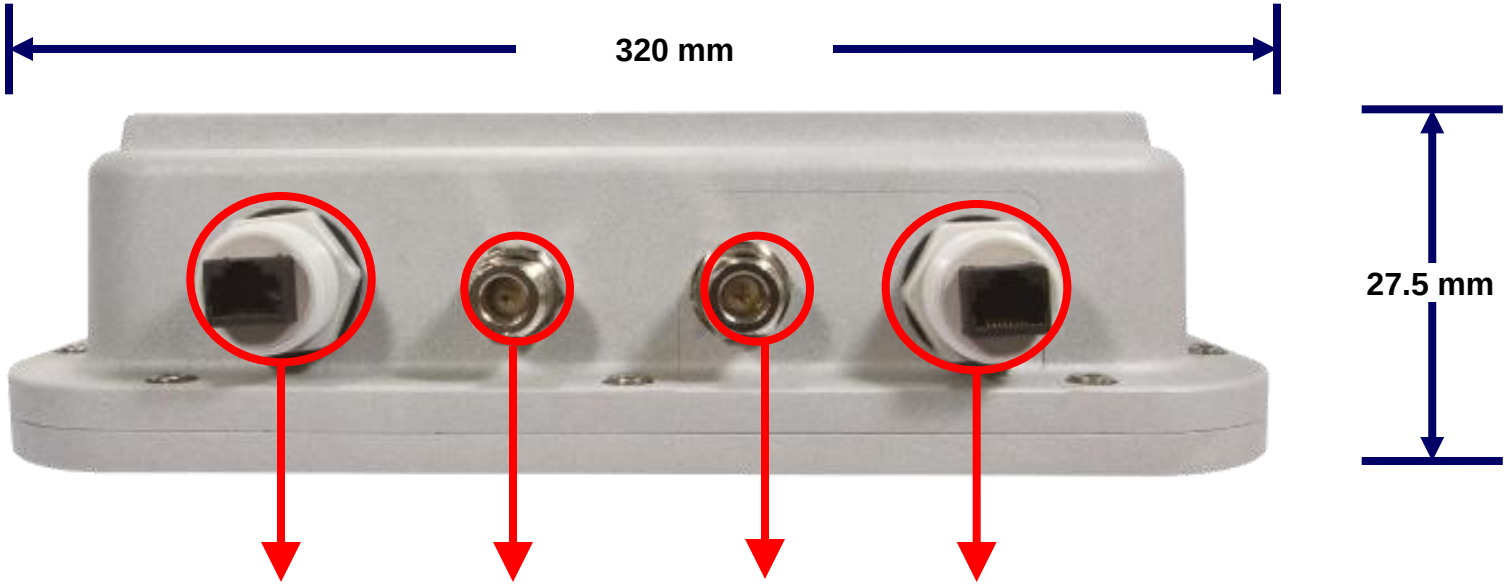
11a/g
54Mbps

High → Performance ← Low

Short ← Distance → Long

Product Overview

Port & Connector



To Ethernet Equipment
(e.g. IP Camera)

N-Type female
(female pin)

802.3af PoE/PD Port

To PoE Injector or PoE Switch

Product Overview

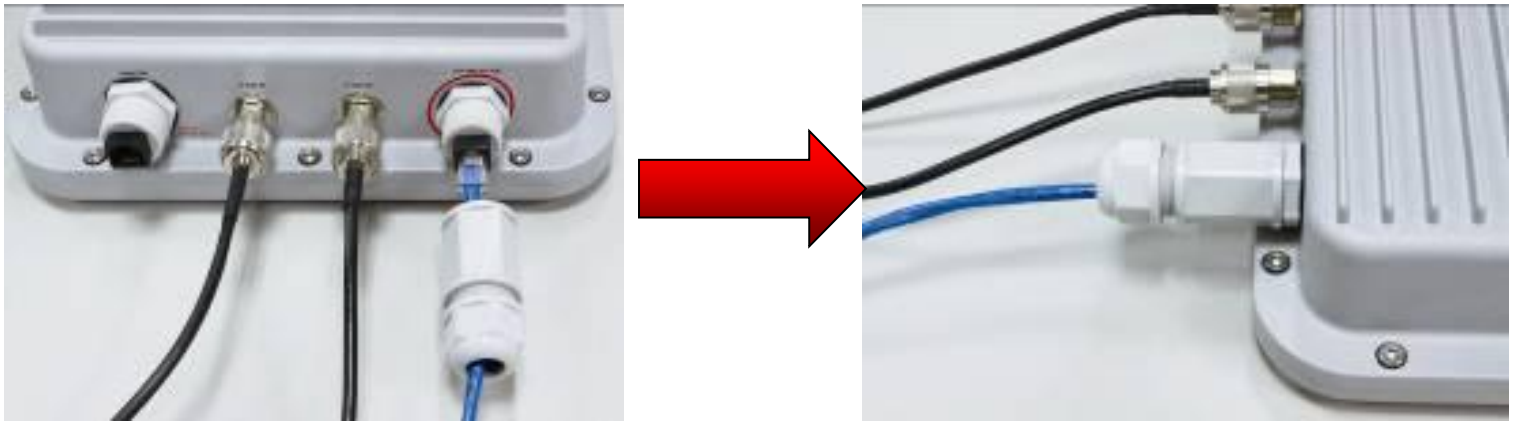
Installation – STEP 1

- ✓ Plug the N-Type (M) to N-Type (M) RF cables into the antenna connectors of the WNAP-7350, and then connect the N-Type (F) antennas to the other side of the RF cables.

Product Overview

Installation – STEP 2

- ✓ Plug the RJ-45 Ethernet cable into the LAN Port of WNAP-7350 through the waterproof kit.



Product Overview

Installation – STEP 3

- ✓ Take out the power cord and PoE injector, plug the power cord into the DC port and plug the other side of the RJ-45 cable into the POE port of the PoE injector.

PoE injector & Power cord

Product Overview

Installation – STEP 4

- ✓ Plug the other waterproof kit to the WAN/LAN port to complete the installation.

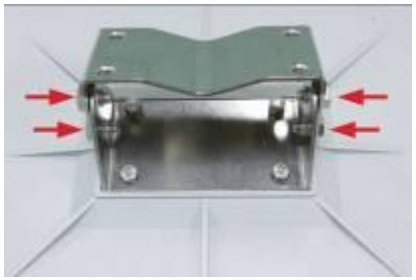
Waterproof Kit

Product Overview

Installation – Pole Mounting

- (a1) Attach the mounting
- (a2) Assemble the M bracket
- (a3) Install the mounting bracket assembly

Mounting Kit

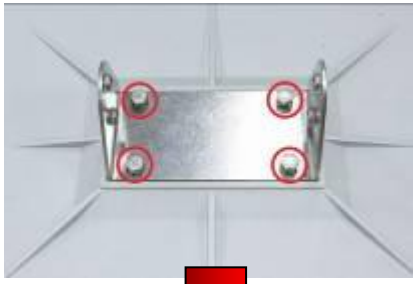


Product Overview

Installation – Wall Mounting

- (b1) Attach the mounting bracket
- (b2) Assemble the M bracket
- (b3) Install the mounting bracket assembly

Mounting Kit



Product Benefit

Maximum Bandwidth

Suitable for various application

Flexible in wireless coverage

Saving wiring cost

Product Features

Hardware Design

- ✓ **IP67 , Aluminum Housing**
- ✓ **-30~75 Degree C wide range of operating temperature**
- ✓ **Standard 802.3af Power over Ethernet**

RF interface

- ✓ **IEEE 802.11a/n 5GHz standards compliant**
- ✓ **High output power up to 500mW with multiple adjustable transmit power control**
- ✓ **Data rate up to 300Mbps with 802.11n mode**
- ✓ **Built-in two N-Type (F) Connectors**

Product Features – Weatherproof Design

Product Features – 5GHz Advantage

5GHz Frequency Band

✓ Up to 24 non-overlapping channels, Less interference, stable connection

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

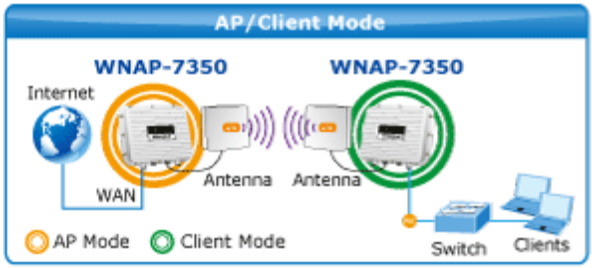
Product Features

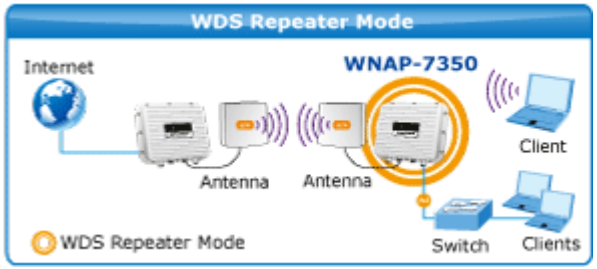
Wireless

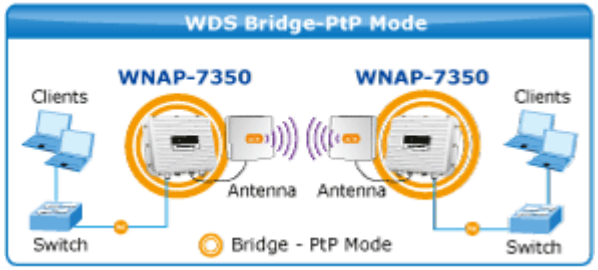
- Operation Mode
  - AP, Client CPE (WISP), WDS PtP, WDS PtMP, Repeater (AP+WDS)
- WDS up to 8 remote APs
- SSID Broadcast & Hide
- Supported Dual-SSID
- Wireless Security
  - 64/128-bit WEP, WPA, WPA2, WPA-PSK(TKIP), WPA2-PSK(AES), and 802.1x Authentication
- Max. Wireless Client up to 40 Stations
- Output Power Control (Range 3~27dBm)
- Distance Adjustment helps deployment

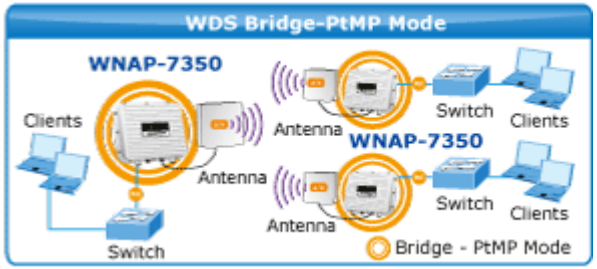
Product Features - Operation Mode

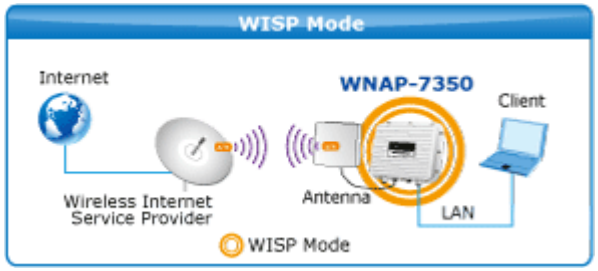
- **Multiple Operation Mode**
  - ✓ AP, Client CPE(WISP), WDS PtP, WDS PtMP, Repeater(AP+WDS)

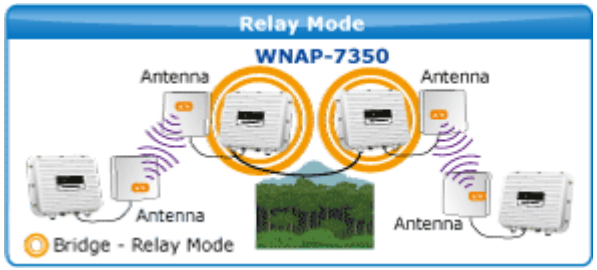








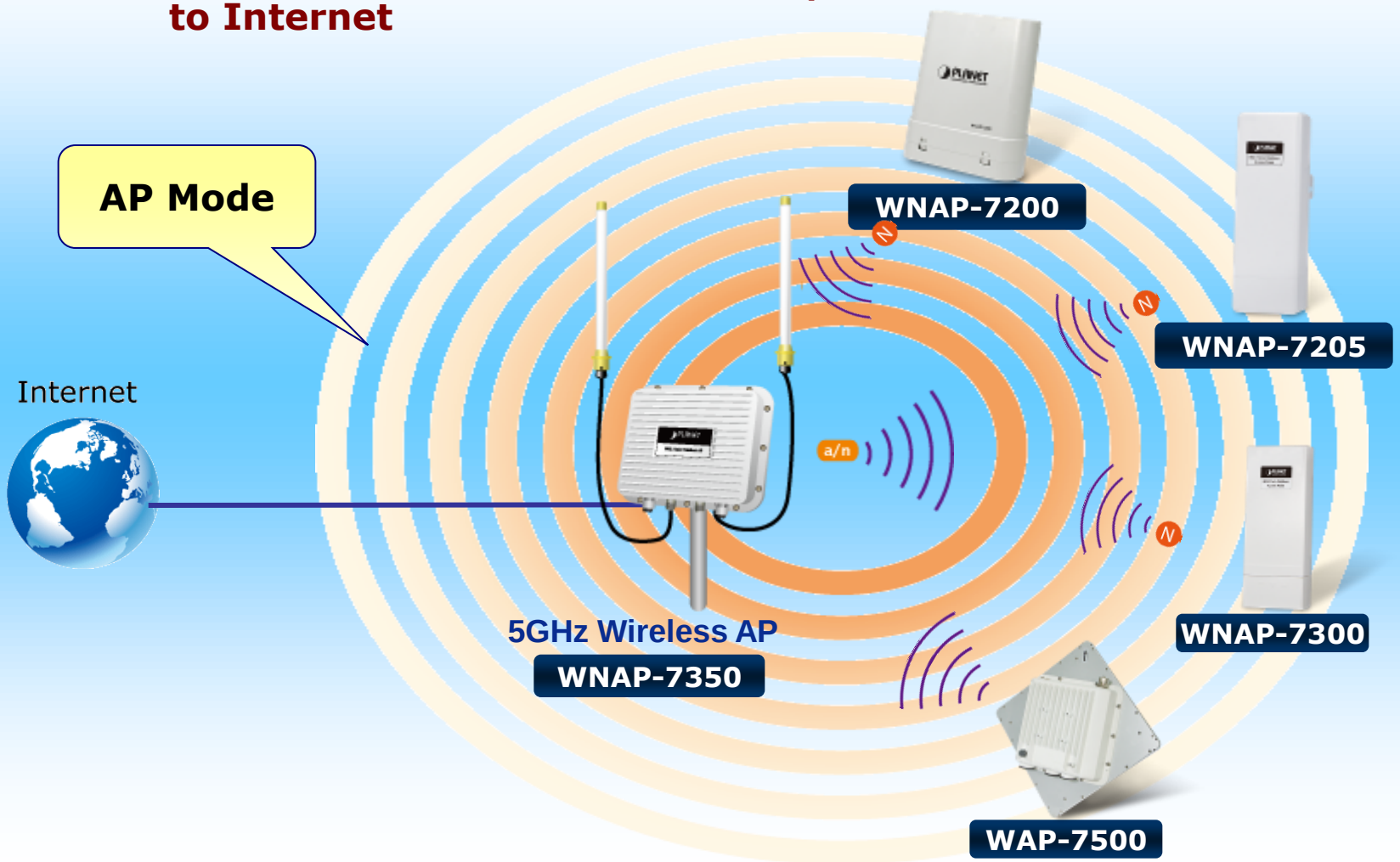




Operation Mode

Access Point

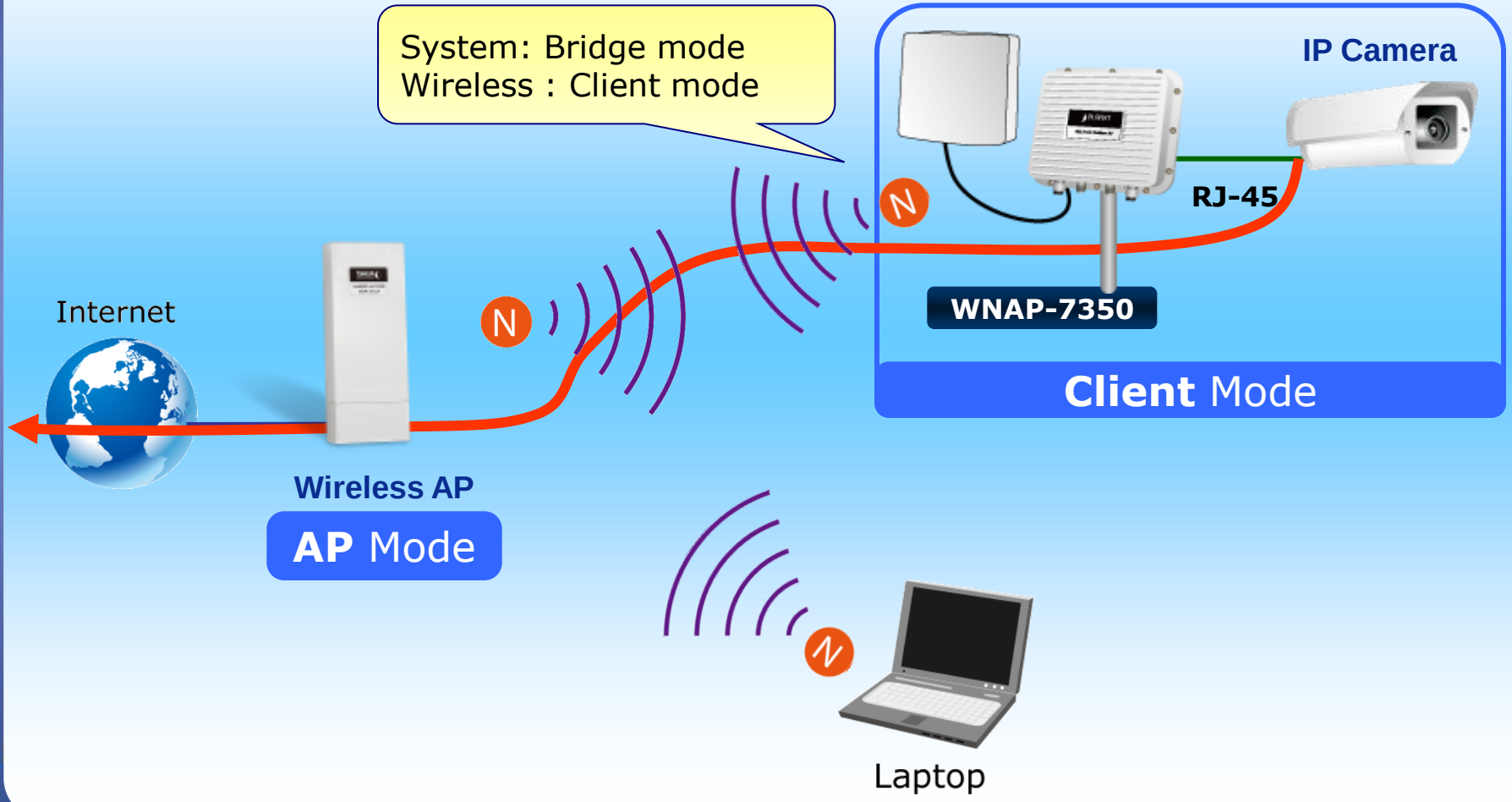
- ✓ **Acts as a central hub for wired / wireless LAN and connect to Internet**



Operation Mode

Client Bridge

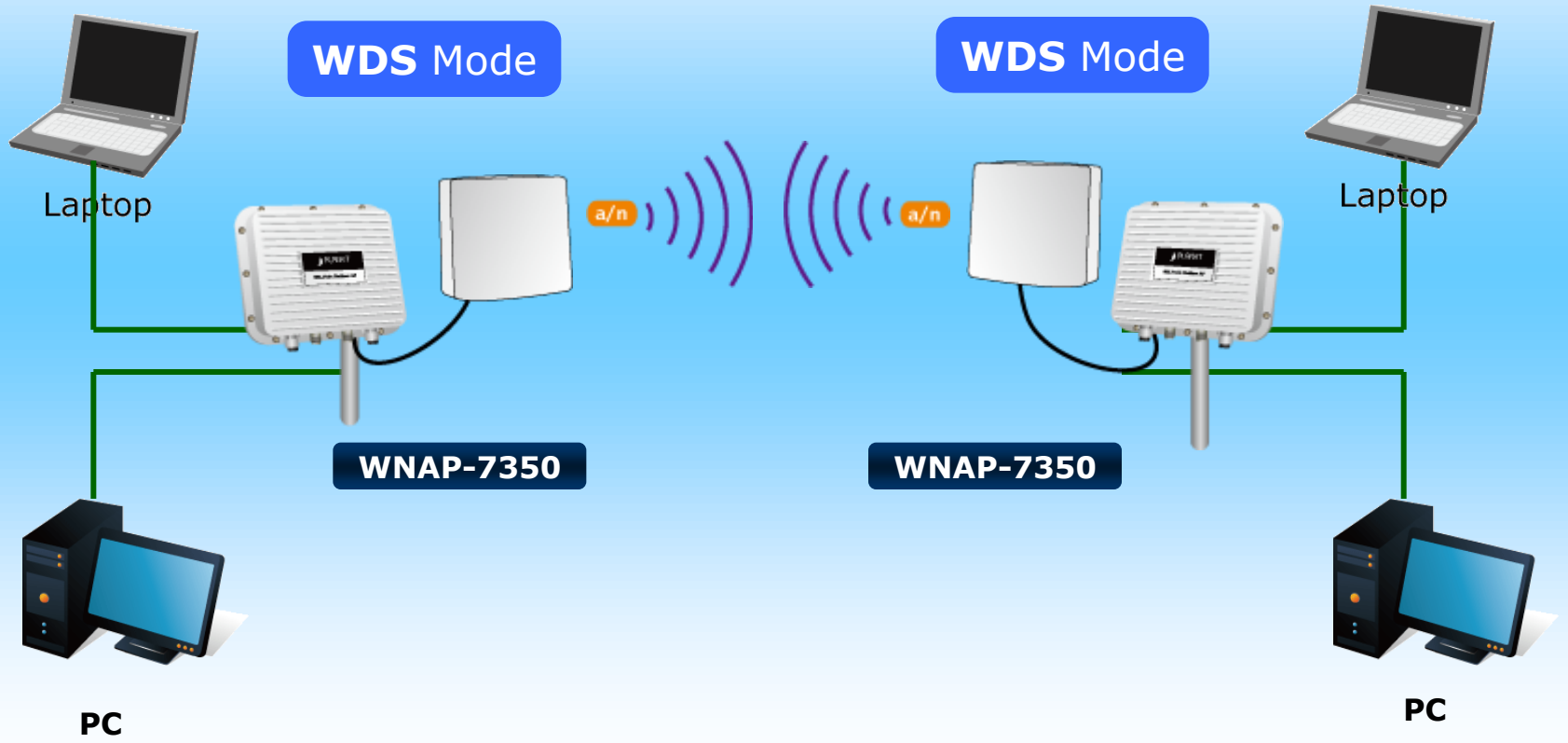
- ✓ **Acts as a wireless client connecting with the remote AP**



Operation Mode

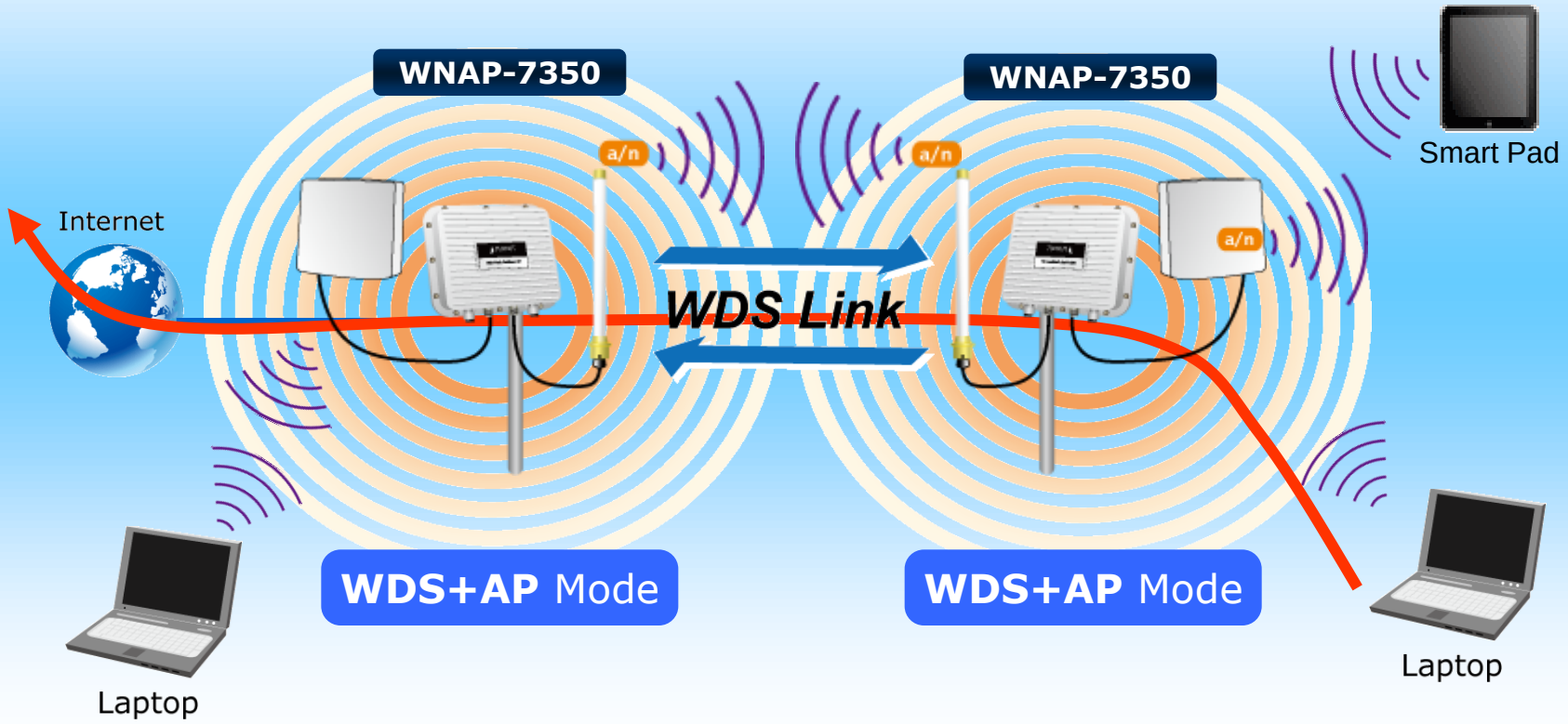
WDS Mode (Bridge)

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



Operation Mode

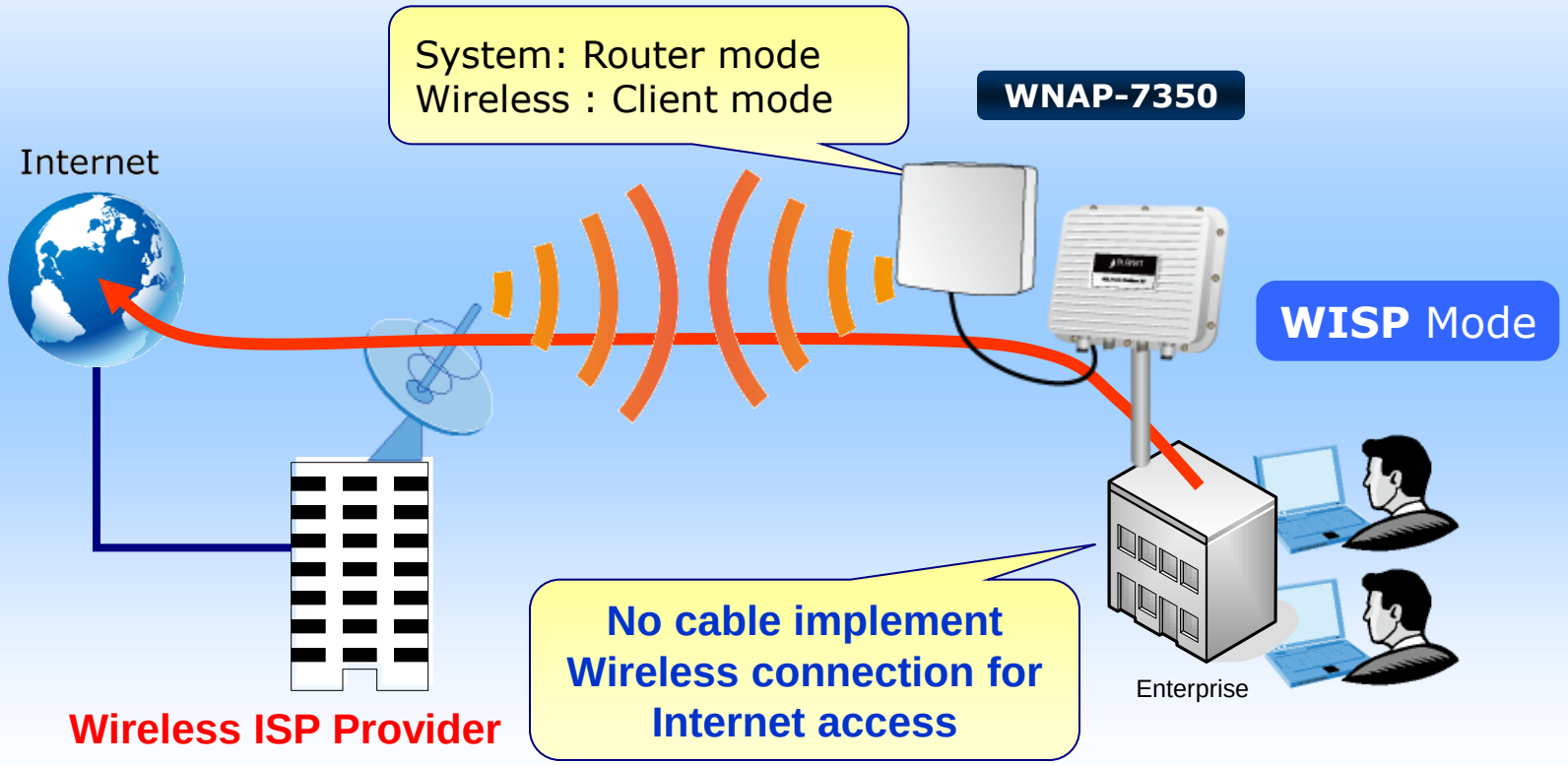
- **WDS + AP Mode (Repeater)**
  - ✓ **Bridge two APs and provides access for wireless clients at the same time**



Operation Mode

WISP (Client Router)

- ✓ **Acts as a WISP client router and the WISP subscriber can easily share the WISP connection with only a simple switch.**



Product Features

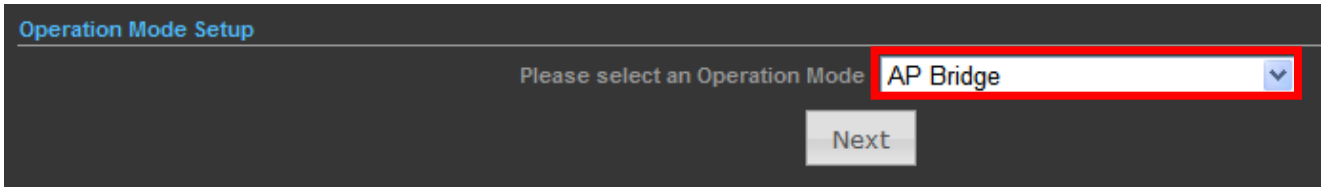
Management

- WAN Connection Types for WISP:
  - Static IP
  - DHCP (Dynamic IP)
  - PPPoE
  - PPTP
  - L2TP
  - IPSec
- Support MAC/ IP/ Port Filtering
- Support DHCP Server, UPnP
- User Friendly Web-based UI, Easy Setup
- System Status includes DHCP Client, Station List, SYS Log
- Support Planet DDNS, SNMP

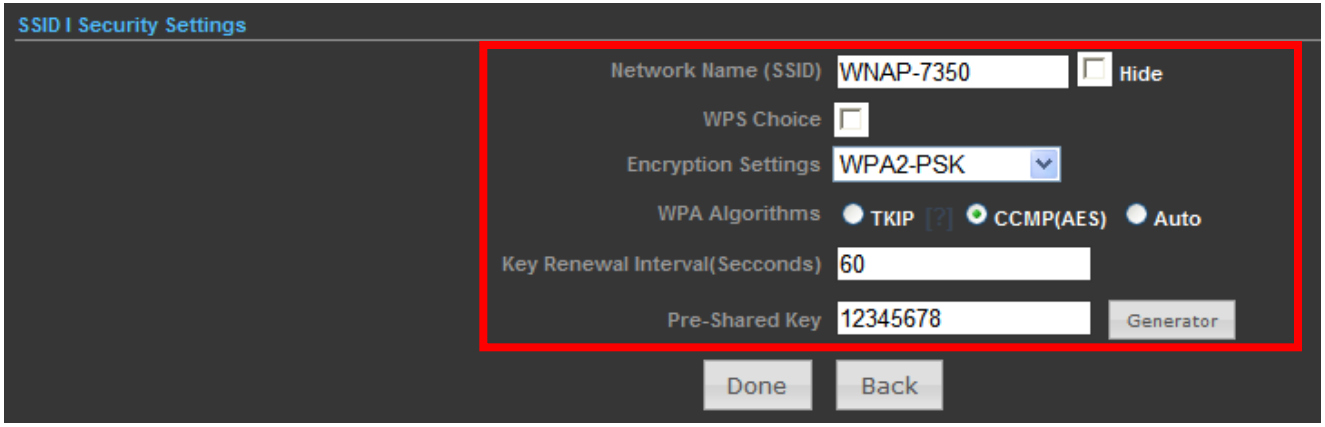
Web UI – Easy Setup

STEP.1 **Select Easy Setup**

STEP.2 **Select Operation Mode**



STEP.3 **Configure Wireless Parameters**

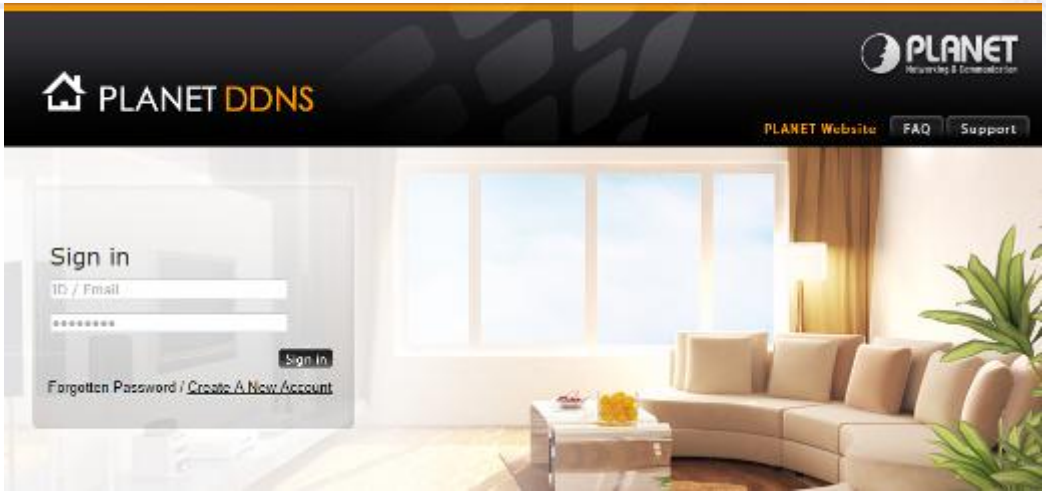


Web UI – Planet DDNS (Router Mode)

STEP.1

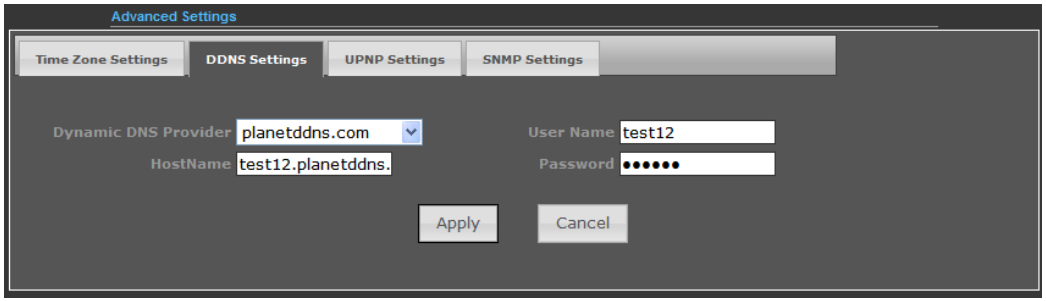
Go to http://www.planetddns.com/

to register a Planet DDNS account.



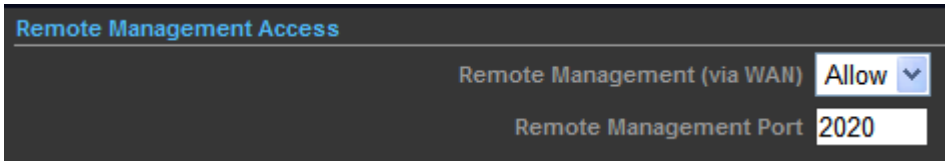
STEP.2

Configure the DDNS account in WNAP-7350



STEP.3

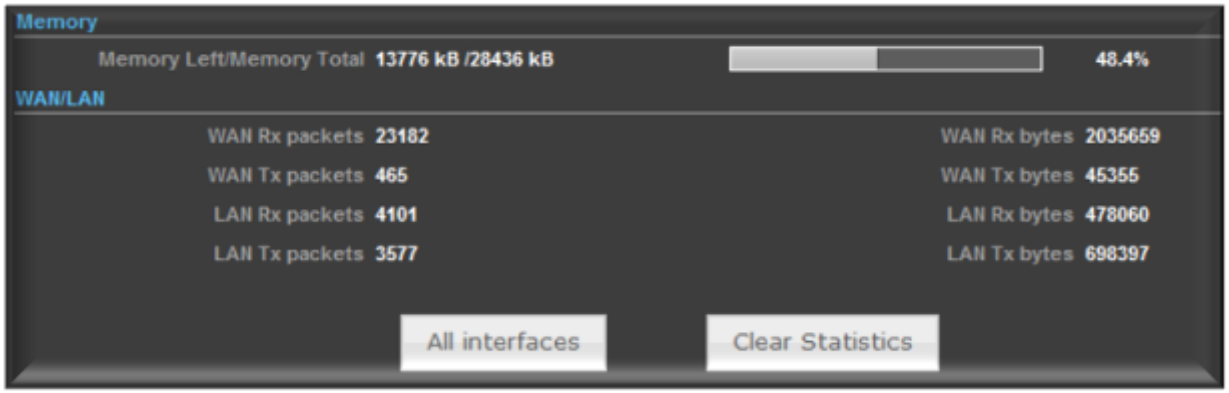
Allow Remote Access via WAN



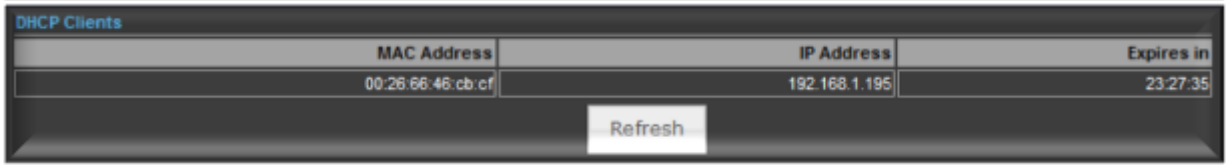
Web UI - Status

System Status

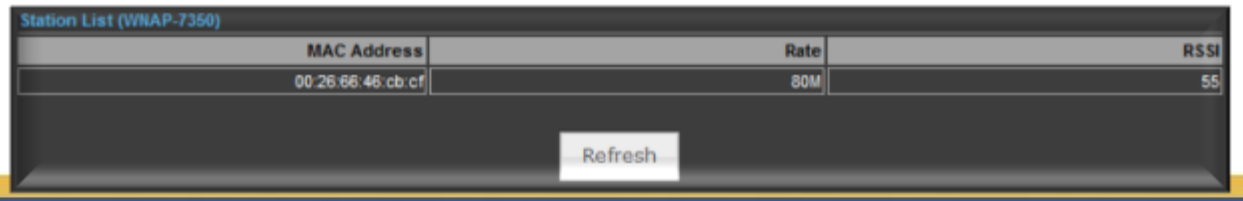
Statistics



DHCP Clients



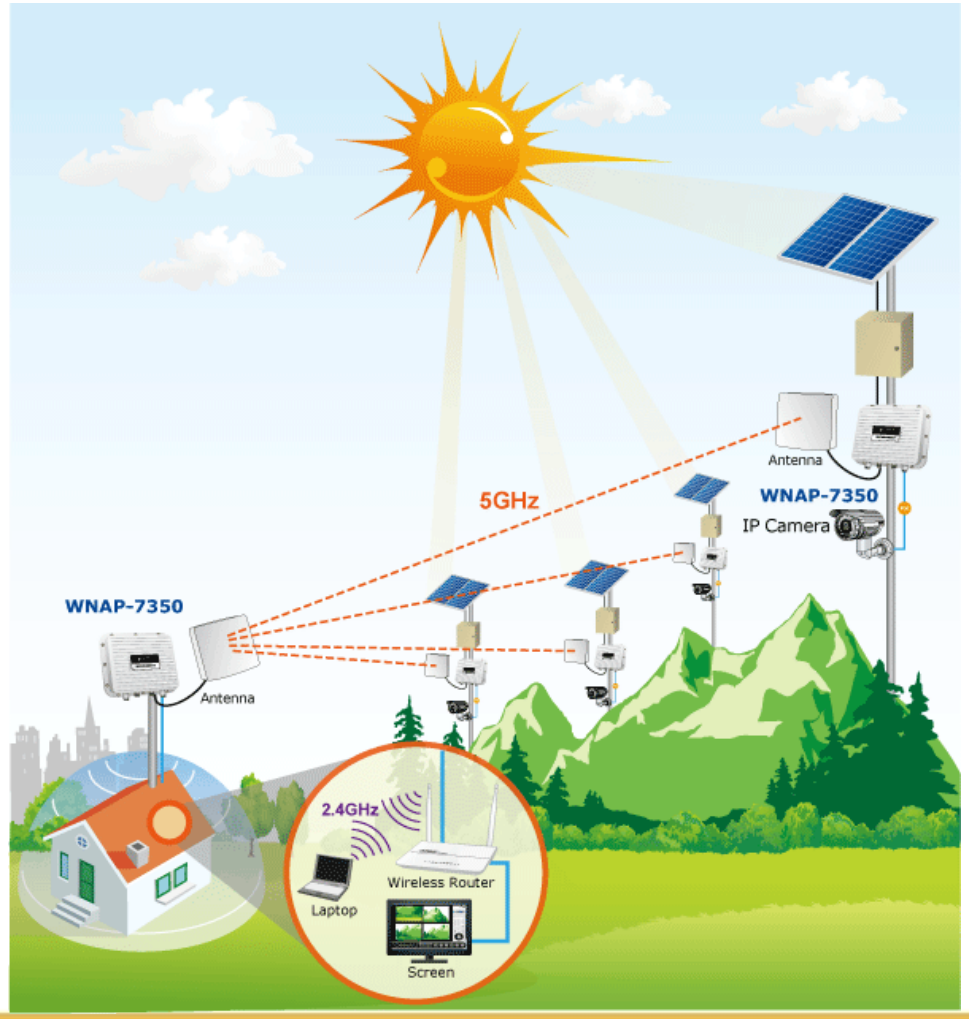
Station List



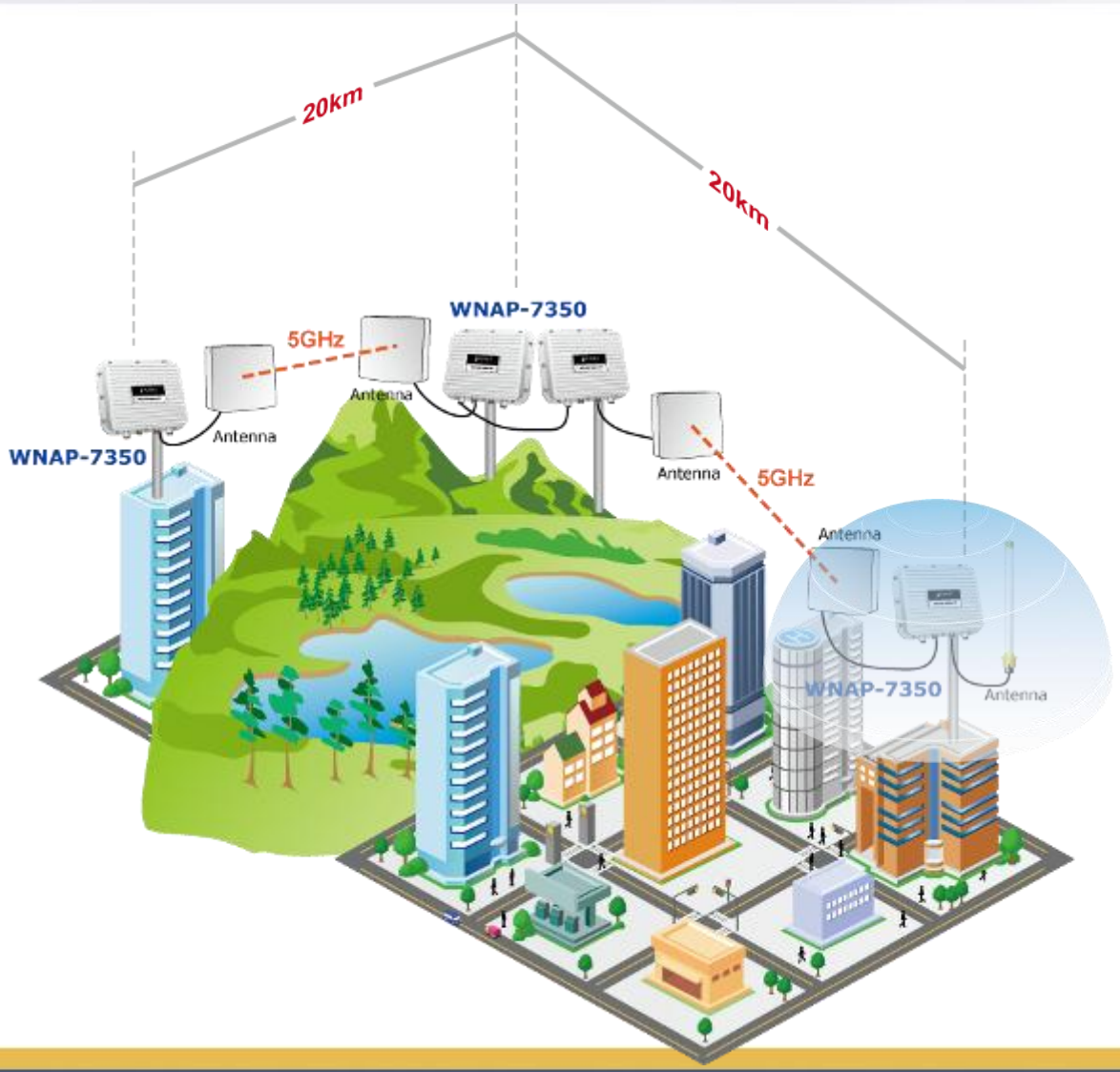
Application - Typical

Application

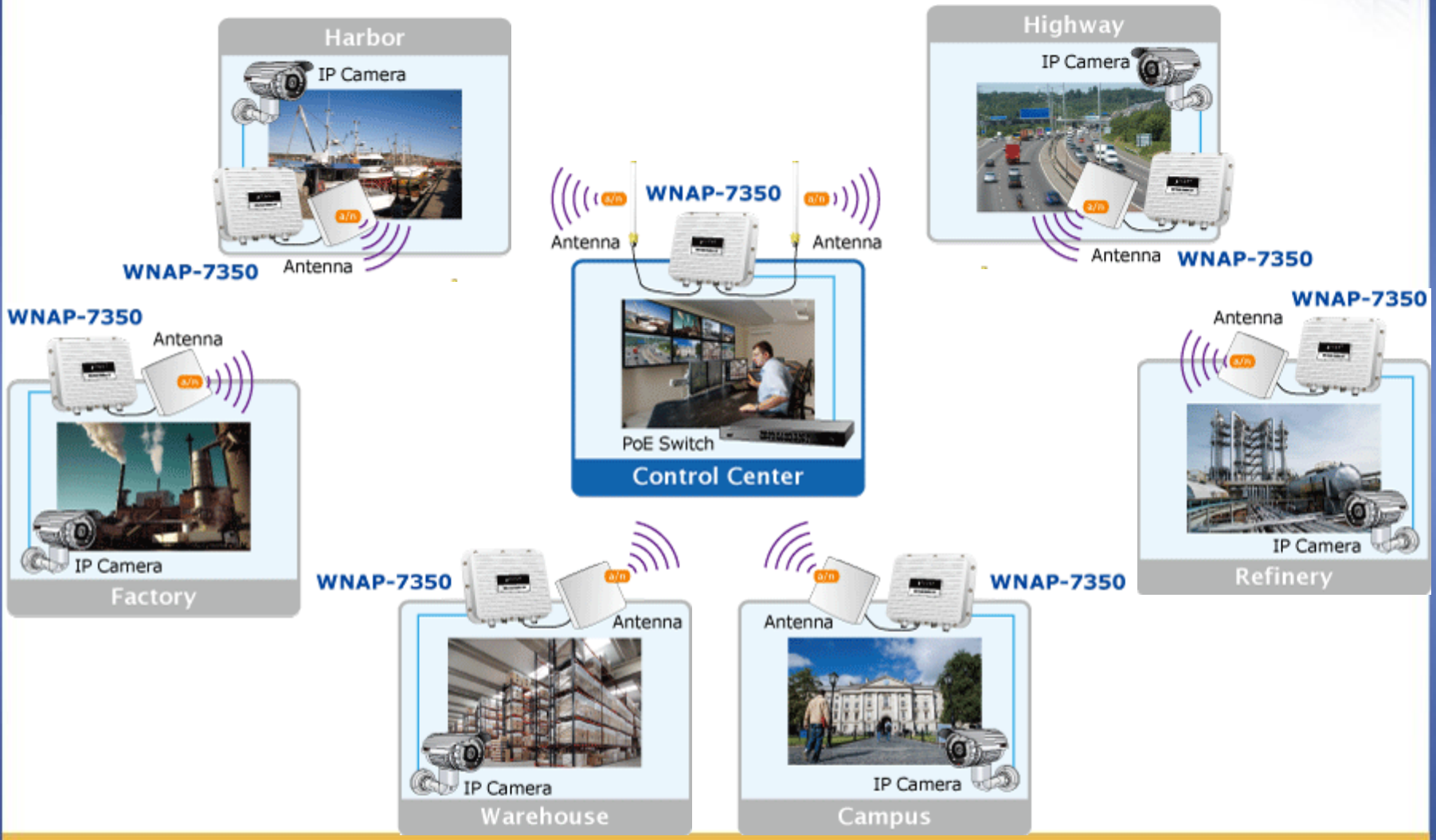
- **Combined with indoor AP & Solar Power System**



Applications – Long Distance



Applications – Various Environments



Comparison – Planet 5GHz

Model / Features	WNAP-7350	WNAP-7300
Flash/RAM	8MB/32MB	8MB/32MB
Ethernet Port	2*10/100Mbps *LAN1: IEEE 802.3af PoE/PD port *LAN2: Passive PoE/PSE port	2*10/100Mbps *LAN2: Passive PoE/PD port *LAN2: Passive PoE/PSE port
Power	IEEE 802.3af PoE / 48VDC input	Passive PoE / 15~18VDC input
Wireless Interface	802.11a/n, 5GHz	802.11a/n, 5GHz
Wireless Antenna	N-Type (F) Connector x 2 Antenna sold separately	Internal: 16dBi dual-polarized Antenna External: RP-SMA Connector x 2 *internal & external antenna switchable by SW
Operating Temp.	-30~75℃	-20~70℃
Wireless Speed	300Mbps	300Mbps
Output Power	27dBm(500mW)	26dBm(400mW)
IP Code	IP67	IP55
SNMP	Yes	Yes
Planet DDNS	Yes	Yes
Planet Smart Discovery	Yes	No
Operating Mode	AP, Client, WDS, Repeater, WISP	AP, Client, WDS, Repeater, WISP

Comparison – Planet 5GHz

Model / Features	WNAP-7350	WNAP-7205	WNAP-7200
Flash/RAM	8MB/32MB	4MB/16MB	4MB/16MB
Ethernet Port	2*10/100Mbps	2*10/100Mbps (LAN/WAN)	1*10/100Mbps
Power	IEEE 802.3af PoE / 48VDC input	Passive PoE / 12VDC input	Passive PoE / 12VDC input
Wireless Antenna	N-Type (F) Connector x 2 Antenna sold separately	Internal: 16dBi Patch Antenna External: RP-SMA Connector x 1 *internal & external antenna switchable by SW	Built-in 18dBi Patch Antenna
Operating Temp.	-30~75℃	-20~70℃	0~55℃
Wireless Speed	300Mbps	150Mbps	150Mbps
Output Power	27dBm(500mW)	25dBm(300mW)	23dBm(200mW)
IP Code	IP67	IP55	IP65
SNMP	Yes	No	No
Planet DDNS	Yes	Yes	Yes
Planet Smart Discovery	Yes	No	No
Operating Mode	AP, Client, WDS, Repeater, WISP	AP, Client, WDS, Repeater, Universal Repeater, WISP	AP, Client, WDS, Repeater, WISP

Appendix

- **Target Market**
  - ✓ Telecom to Business
  - ✓ Telecom to Residential
  - ✓ Building to Building
  - ✓ Public Area Access
  - ✓ Hotel/Resort/Campus
  - ✓ Small Wireless ISP
- **Benefit**
  - ✓ Maximum Bandwidth
  - ✓ Flexible in wireless coverage
  - ✓ Saving wiring cost
  - ✓ Suitable for various application

- **Target Customer**
  - ✓ **Who buy the products**
    - WNAP-7200
    - WNAP-7205
    - WNAP-7300
    - WAP-7500
    - WAP-8000
    - MAP-2000 / 3000 Series
  - ✓ **Who ever ask about**
    - WISP
    - Outdoor Access Point
    - Long Distance, High Power AP

Appendix

Outdoor Antennas – 5GHz

Model / Feature	ANT-FP23A	ANT-FP18A	ANT-FP15AD	ANT-SE21A
Antenna Type	Uni-directional Flat panel	Uni-directional Flat panel	Uni-directional Flat panel Dual Polarization	Uni-directional Sector
Gain (dBi)	23	18	15	21
Beamwidth degree – Horz.	9	10	15-19	60-120 adjustable
Beamwidth degree – Vert.	9	10	17-21	10
Connector	N-Type	N-Type	N-Type x 2	N-Type
Mounting Type	Mast or Wall Mount	Mast or Wall Mount	Mast or Wall Mount	Mast or Wall Mount

Appendix

Outdoor Antennas – 5GHz

Feature \ Model		ANT- ANT17A	ANT-OM10A
Antenna Type		Uni-directional, Sector	Omni-directional, General purpose
Gain (dBi)		16.5	10
Beamwidth degree	Horz.	120	360
	Vert.	10	6
Connector		N-Type	N-Type
Mounting Type		Mast or Wall Mount	Mast or Wall Mount

Appendix

Accessories

For WNAP-7350

Feature \ Model		WL-SMA-0.6	WL-SMA-6	WL-NM-0.6	WL-MF-0.6
Type		RP-SMA (Male) to N-male (male pin)	RP-SMA (Male) to N-male (male pin)	N-male (male pin) to N-male (male pin)	N-male (male pin) to N-female (female pin)
Length		0.6m	6m	0.6m	0.6m
Connector	Side-1				
	Side-2				

Appendix

Accessories

Feature \ Model		WL-N-10	WL-N-0.6	WL-MMC	WL-LTNA
Type		N-male (male pin) to N-female (female pin)	N-male (female pin) to N-male (male pin)	R-MMCX (Female) to R-SMA (Male)	N-male (male pin) to N-female (female pin)
Length		10m	0.6m	0.3m	-
Connector	Side-1				
	Side-2				

Appendix

Related Products & Accessories

- ✓ CB-STP-25 (25M STP Cat5 Cable)
- ✓ WL-LTNA (Lightning Arrester)
- ✓ ELA-100 (Ethernet Lightning Arrest Box)
- ✓ WL-NM-0.6 (RF Cable)
- ✓ 5GHz Outdoor Antenna
  - ANT-OM10A
  - ANT-FP15AD
  - ANT-FP18A
  - ANT-FP23A
  - ANT-SE17A
  - ANT-SE21A

CB-STP-25

WL-LTNA

ELA-100

WL-NM-0.6

Activating IP Power