

600Mbps 802.11n *Dual Band*
Outdoor Wireless CPE (IP66, 802.3at
PoE, 4 x N-Type connector)

WDAP-8350

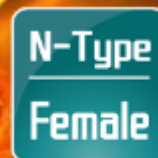
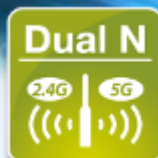


Presentation Outlines

- ◆ Quick Glance
- ◆ Product Positioning
- ◆ Product Overview
- ◆ Product Features
- ◆ Management – Web UI
- ◆ Applications
- ◆ Product Comparison
- ◆ Appendix

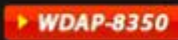


Quick Glance



Robust Protection Comes from the Inside Out

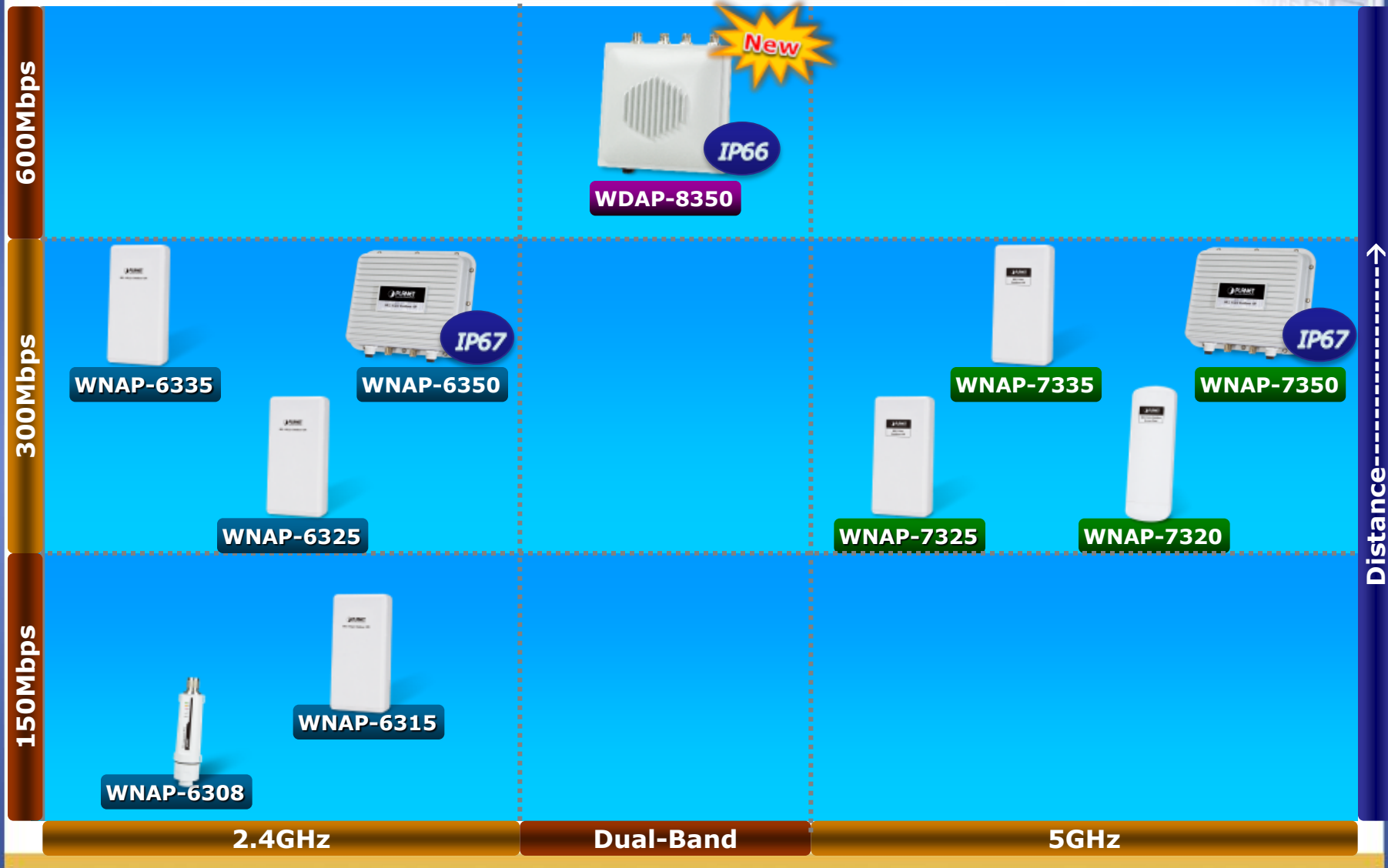
Dual-Band Infrastructure, Dual-OS Backup, Double Assurances!

600Mbps 802.11n Dual Band Outdoor Wireless CPE 

Product Positioning



Product Positioning – Outdoor Wireless



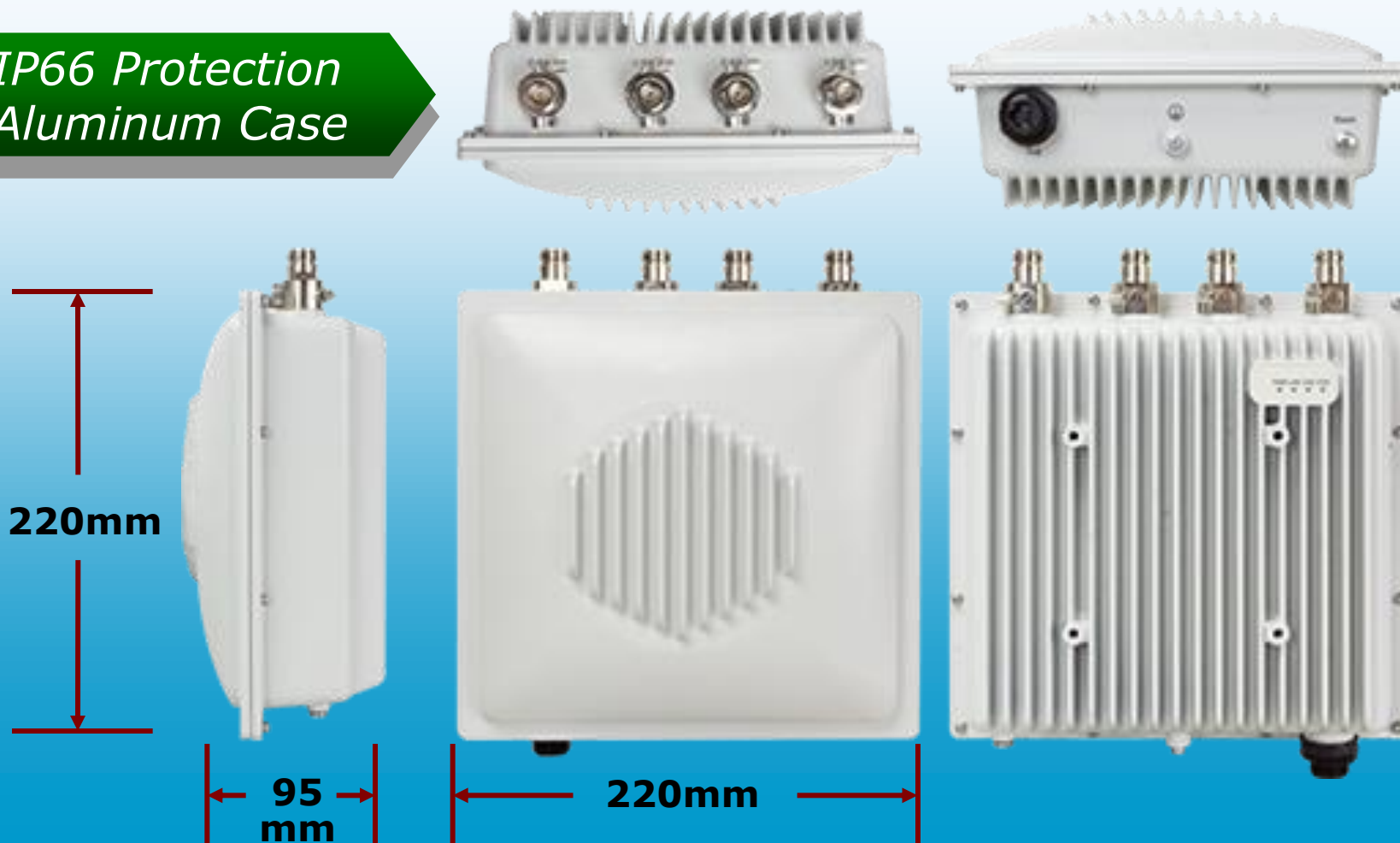
Product Overview



Product Overview

◆ Hardware Design

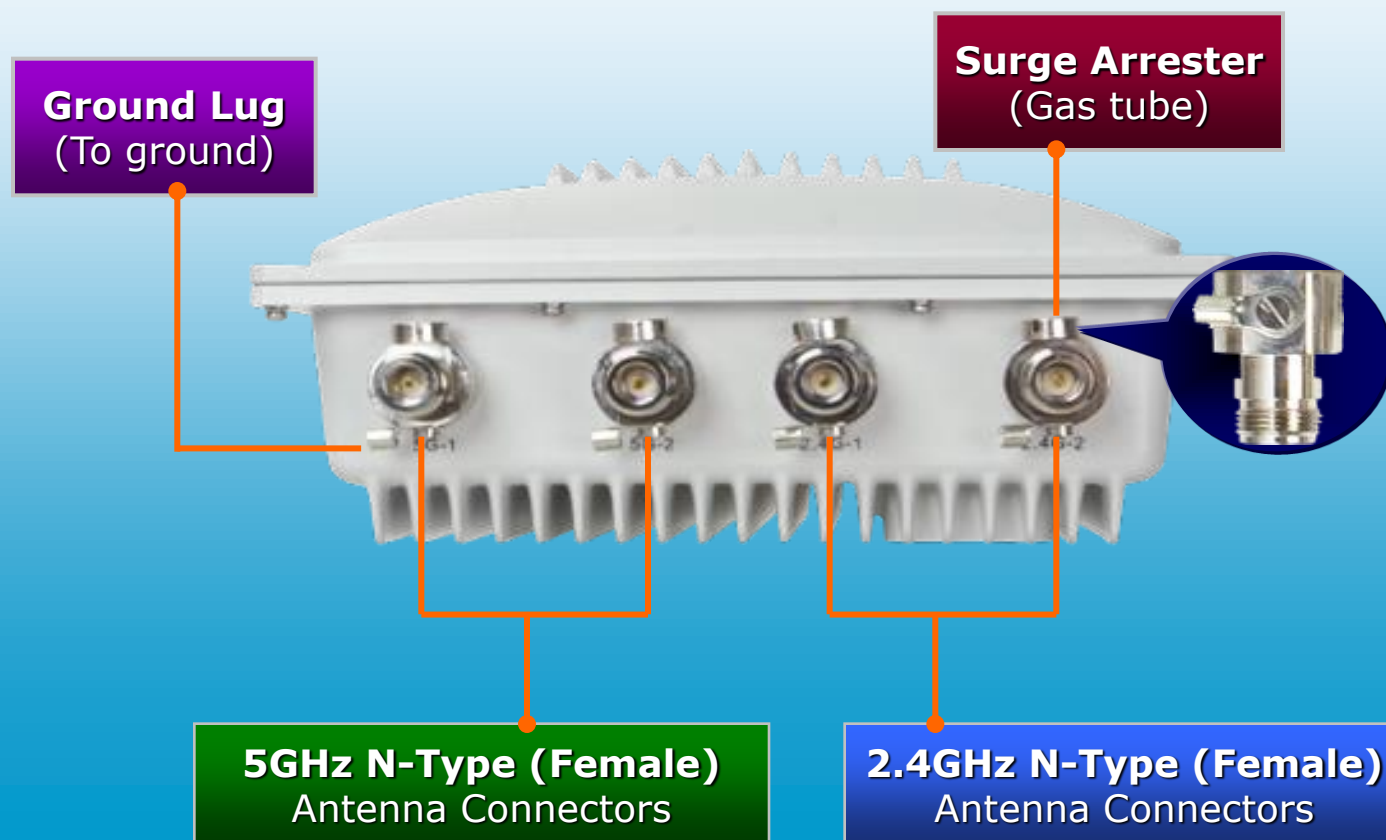
*IP66 Protection
Aluminum Case*



Product Overview

◆ Top View – Antenna Connector and Anti-surge design

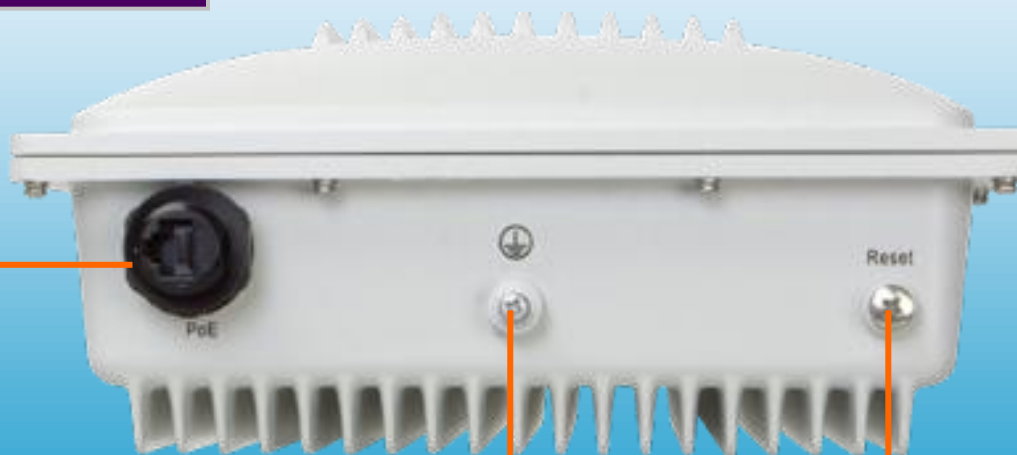
- ✓ Each connector has ground lug and surge arrester



Product Overview

◆ Bottom View - Port

PoE LAN Port
(Gigabit, 802.3at/PD)

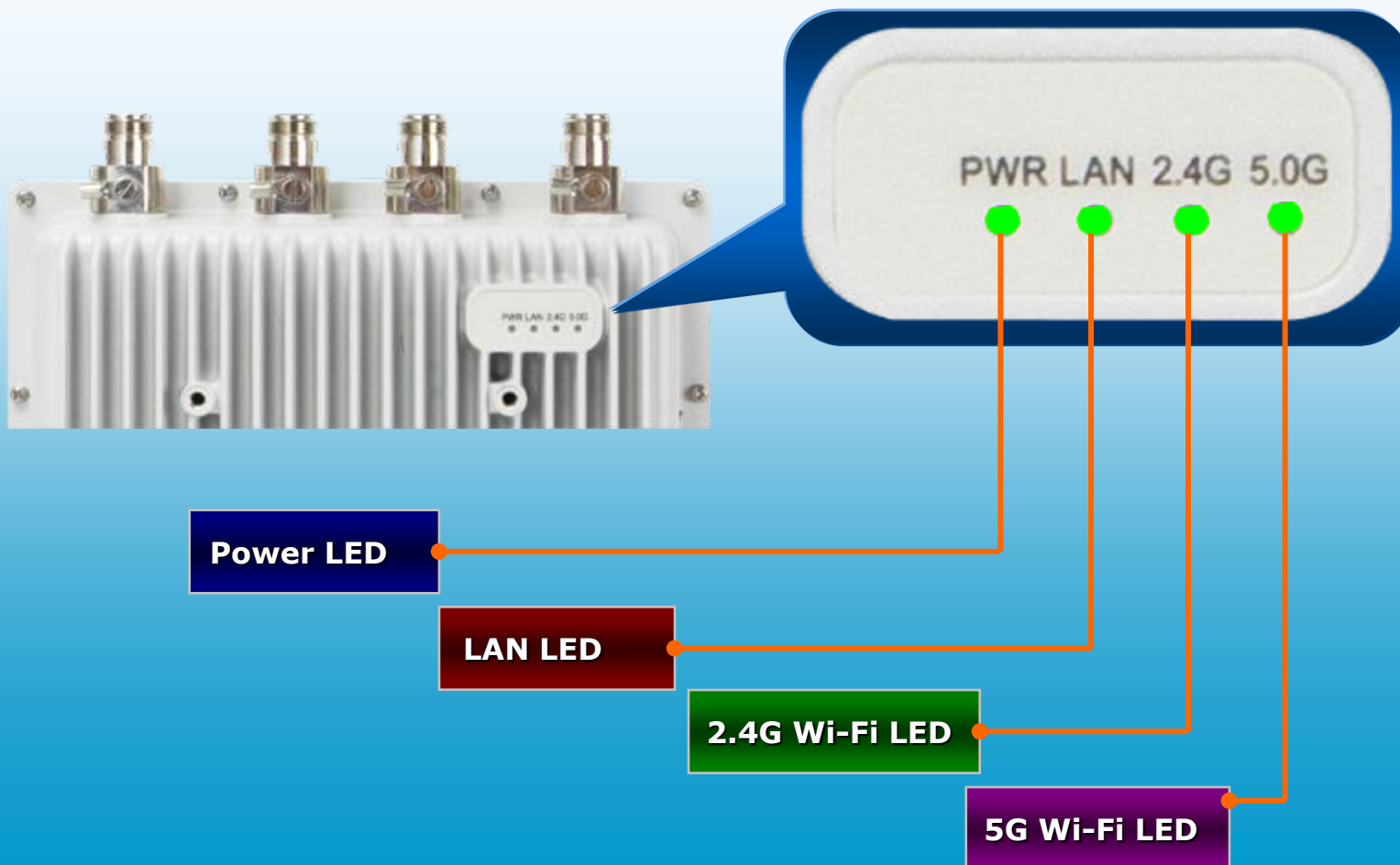


Ground Terminal
(To ground)

Reset Button
(Under the screw)

Product Overview

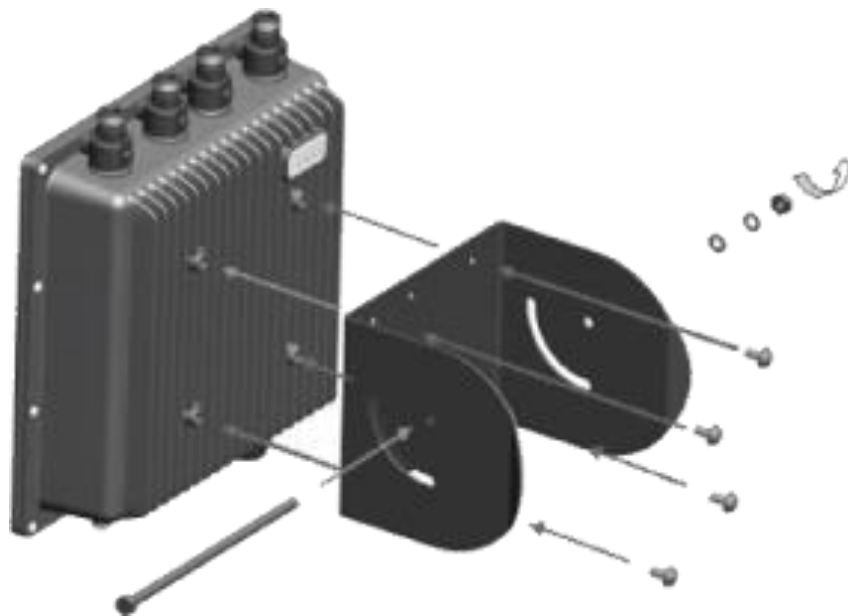
◆ Rear View - LED



Product Overview

◆ Pole Mounting Installation - 1

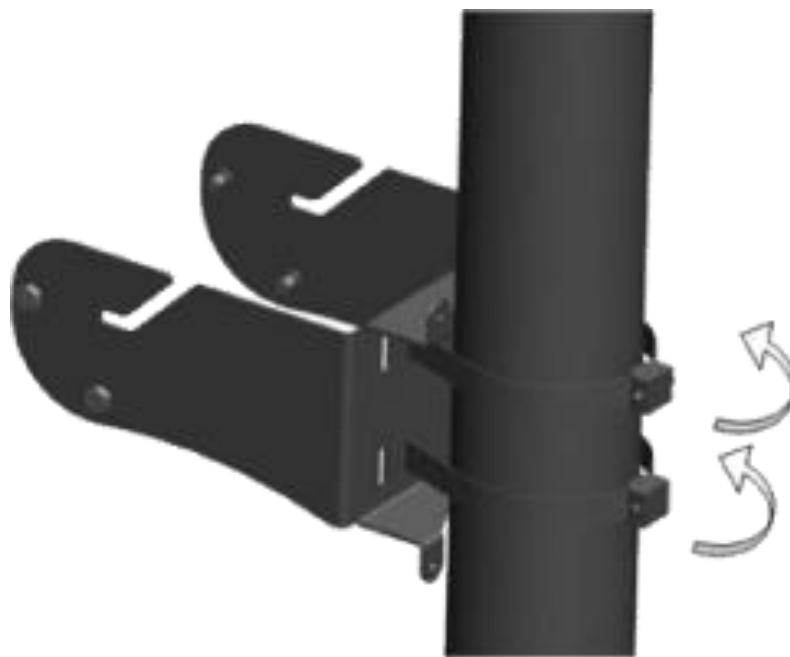
- ✓ Step 1: Install the backplane at the rear of WDAP-8350.
- ✓ Step 2: Screw the 4 short screws with a Phillips screwdriver.
- ✓ Step 3: Make the long screw rod pass through the holes of the backplane.
- ✓ Step 4: Then, put the flat pad, spring shim and the screw nut on it in proper order; do not lock it tight.



Product Overview

◆ Pole Mounting Installation - 2

- ✓ Step 1: Lock the 2 stainless tight hoop strips around the pole by passing through the mounting bracket and lock the fastening screws.



Product Overview

◆ Pole Mounting Installation - 3

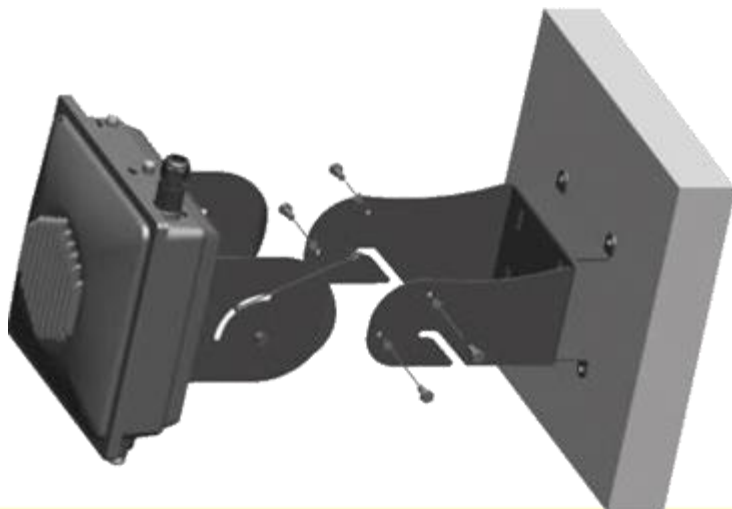
- ✓ Step 1: Install the device with the backplane to the mounting bracket on the column
- ✓ Step 2: Then, fix the device and mounting bracket together by using 4 hex cap screws.



Product Overview

◆ Wall Mounting Installation

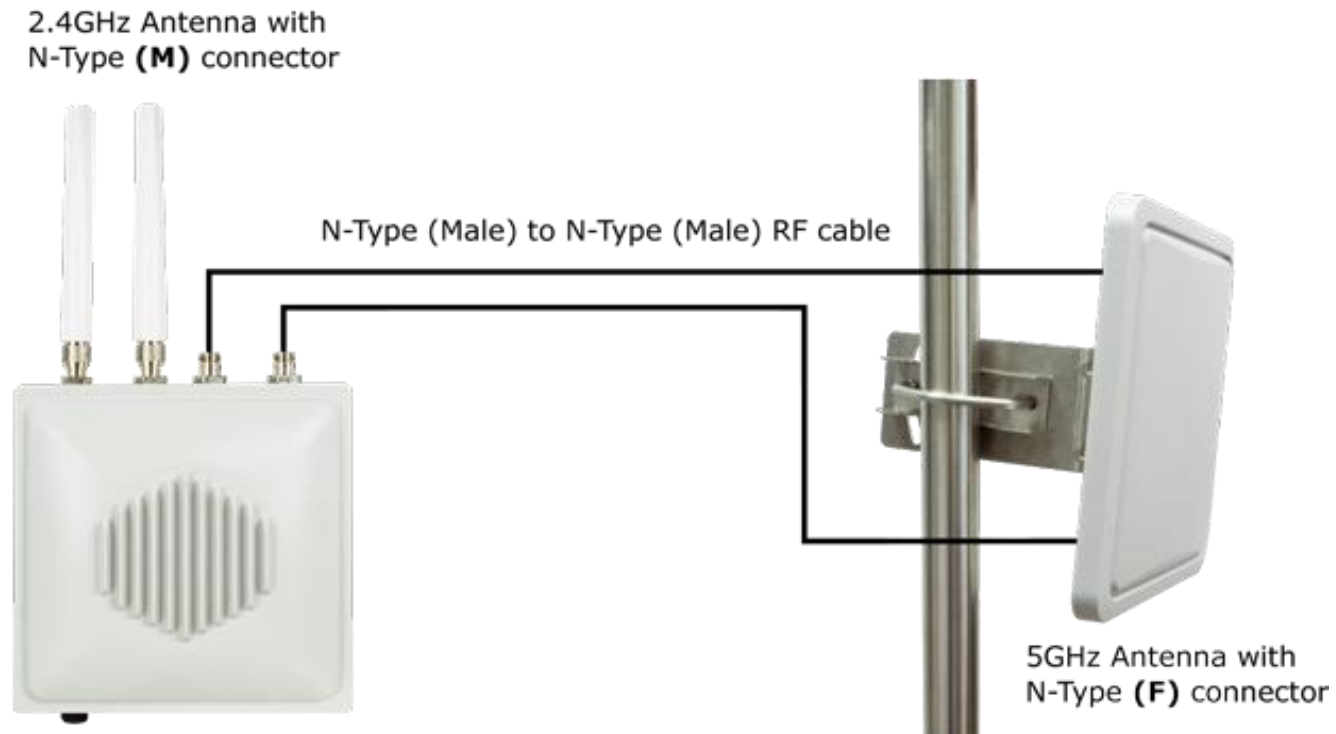
- ✓ Step 1: Install the backplane at the rear of the WDAP-8350 first.
- ✓ Step 2: Then, mark each point in the bracket for the screws.
- ✓ Step 3: Remove the bracket to drill the points and insert the plastic wall-mounts.
- ✓ Step 4: Use screws to lock the bracket with a screwdriver.
- ✓ Step 5: Assemble the device with the mounting bracket on the wall by using 4 short screws and 1 long screw.



Product Overview

◆ Antenna Installation

- ✓ Step 1: Directly connect the antenna
- ✓ Step 2: Or, through the **WL-NM-0.6**



Product Overview

◆ PoE Installation - Finished



Product Features



Product Features

◆ Hardware Design

- ✓ **IP66**, Outdoor Aluminum Enclosure
- ✓ Built-in **Surge Arrester** for lightning protection
- ✓ **-40~70 degrees C** wide-ranging operating temperature
- ✓ **Gigabit** LAN speed
- ✓ **IEEE 802.3at Power over Ethernet** Design
- ✓ Built-in **Heater** (will auto-launch at -30 degrees C) for harsh environment
- ✓ **Dual-image** (dual-OS) enables the auto failover

◆ RF interface

- ✓ Dual-**N** band (5GHz + 2.4GHz, 802.11n compliant)
- ✓ High output power up to **500mW**
- ✓ Data rate up to **300+300Mbps** in 802.11n mode
- ✓ Built-in 4 **N-Type (Female)** antenna connectors

Product Features



Aluminum Housing, IP66 Protection

-40°C



Heater Prevents Freeze



Durable Aluminum Case

70°C



6KV Surge Protection



IP66-rated Waterproof



Product Features

◆ Wireless

✓ Operation Modes

AP Bridge, WDS PtP, WDS PtMP, Relay

✓ WDS up to **16** remote APs at each frequency band

✓ Max. **16** SSIDs supported at each frequency band

✓ Wireless Security

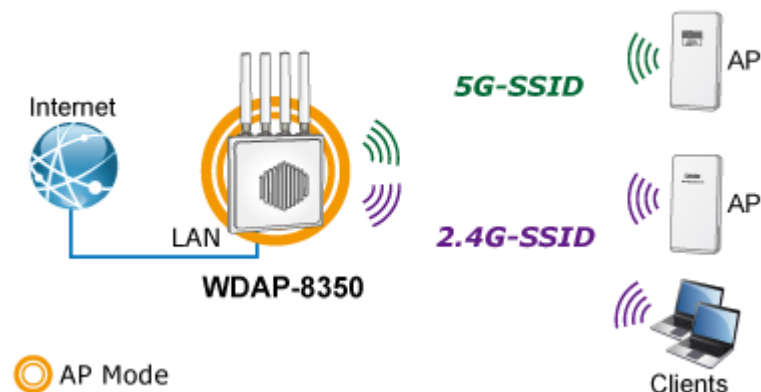
- **64/128-bit WEP, WPA, WPA2, WPA-PSK (TKIP), WPA2-PSK (AES), and 802.1X authentication**

✓ Max. wireless clients supported up to **50** at each frequency band

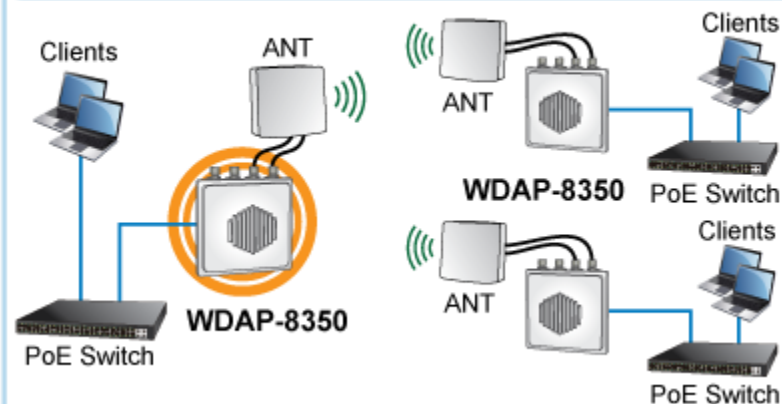
✓ Output Power Control: **1~100%**

Product Features - Operation Mode

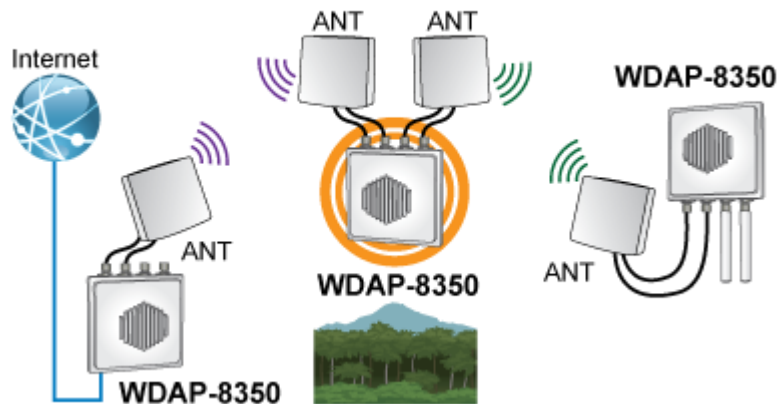
AP (Multi-SSID) Mode



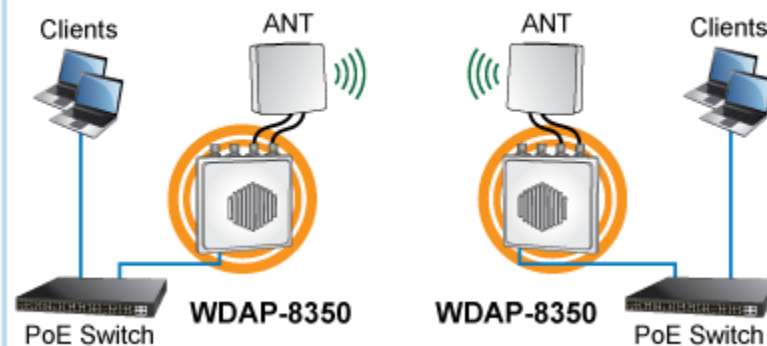
WDS Bridge-PtMP Mode



Relay Mode



WDS Bridge-PtP Mode



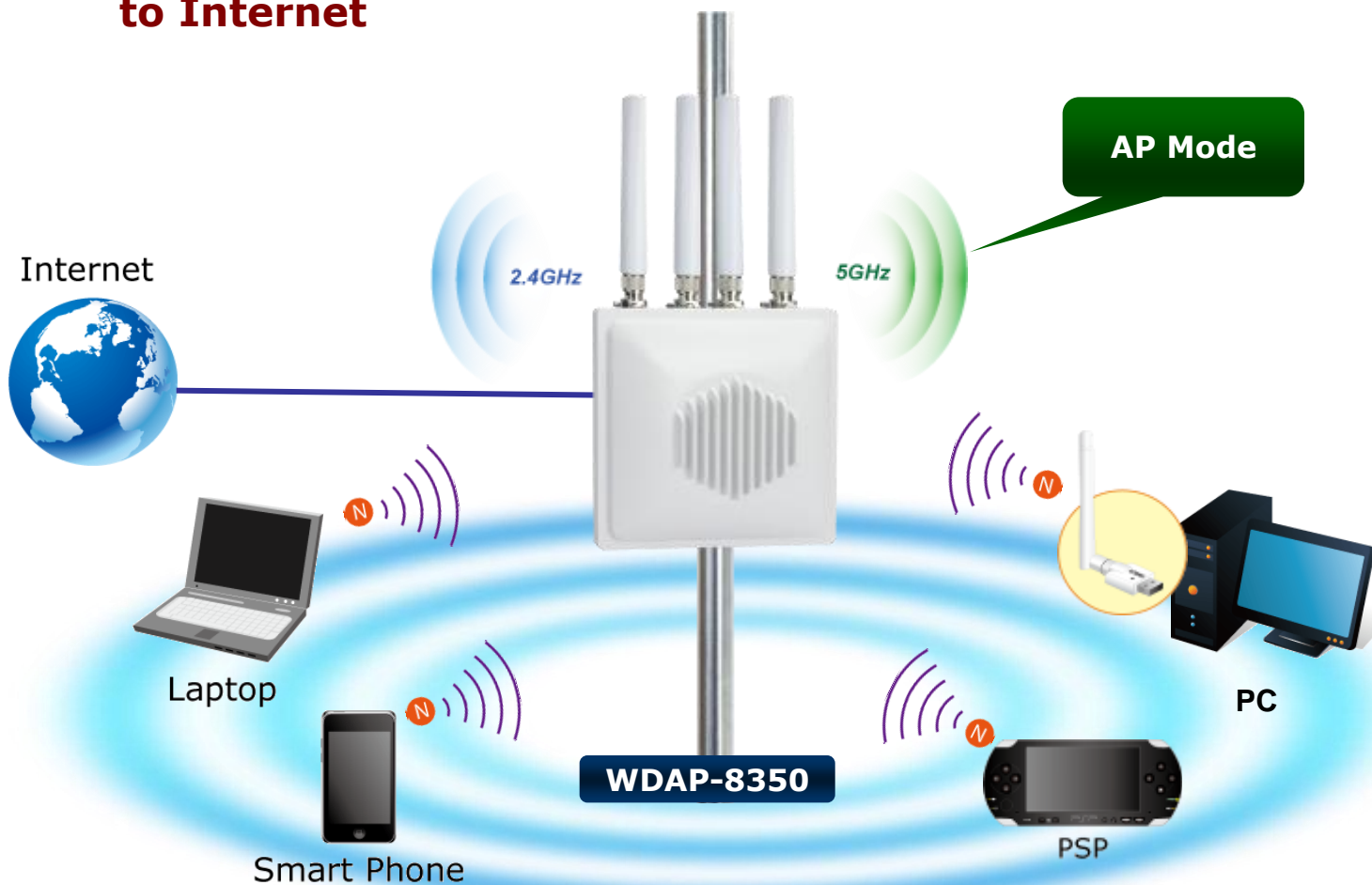
5GHz AP/Client Link

2.4GHz AP/Client Link

Operation Modes

◆ Access Point (Dual-Band)

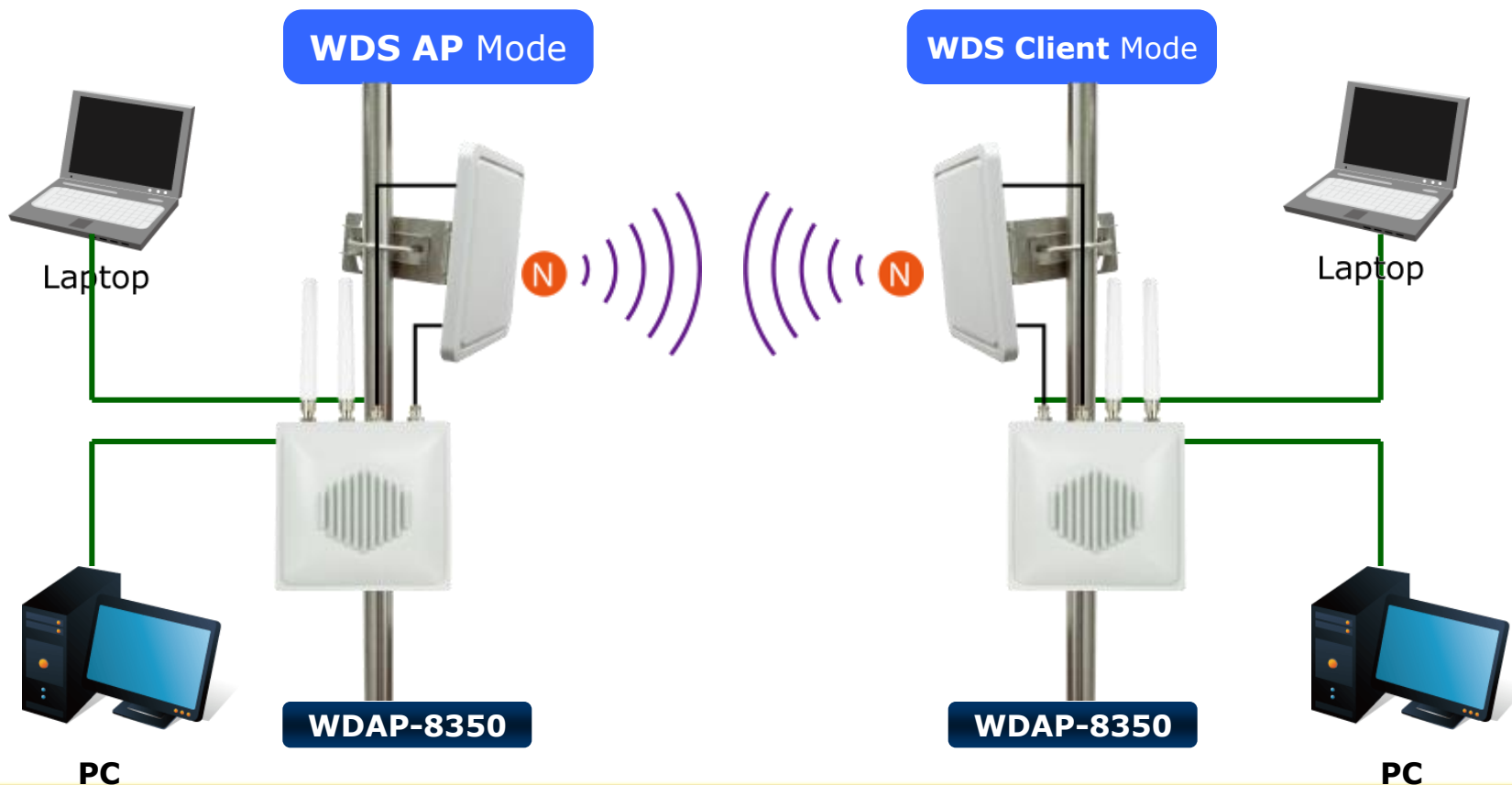
- ✓ Acts as a central hub for wired/wireless LAN and connects to Internet



Operation Modes

◆ WDS Mode (Bridge)

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



Operation Modes

◆ Relay

- ✓ Acts like repeater, but utilize each frequency band assigned to different mode of transmission without any loss of performance.



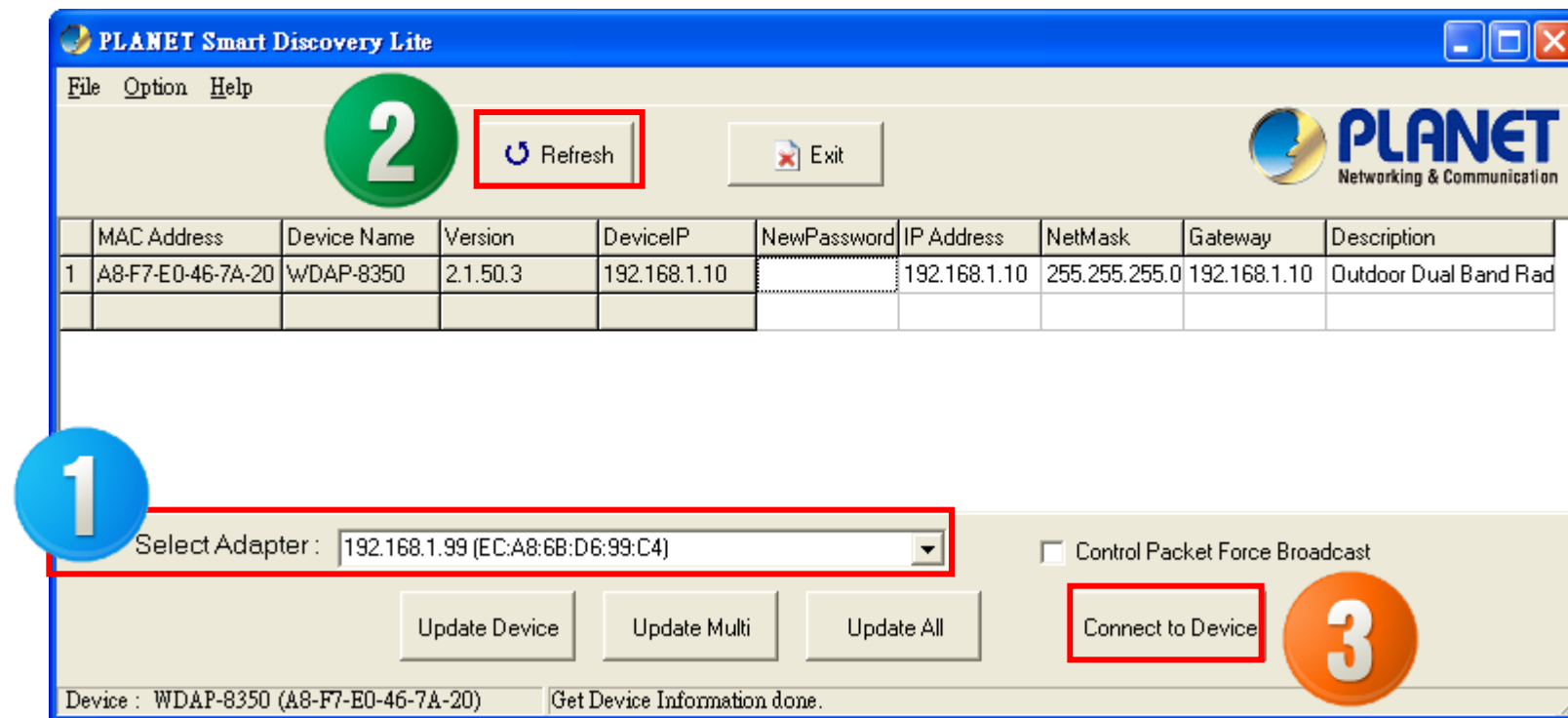
Product Features

◆ Management

- ✓ Supports IEEE **802.1Q tagged VLAN** mapping up to 32 SSIDs
- ✓ IPv4 and **IPv6** dual-stack management network
- ✓ **Dual-image** (dual-OS) backup mechanism
- ✓ **PLANET Smart Discovery** supported
- ✓ Telnet Command Line Interface
- ✓ Auto **power saving** mode reduces power consumption to **30%** (up to 7W compared with high-loading of 24W)
- ✓ Easy to locate online clients information through the
Wireless Location Management
- ✓ System status monitoring includes statistics and associated client list

Product Feature – Smart Discovery Utility

- ◆ Easy to search currently-connected APs



PLANET Smart Discovery Lite

File Option Help

2 Refresh Exit

	MAC Address	Device Name	Version	DeviceIP	NewPassword	IP Address	NetMask	Gateway	Description
1	A8-F7-E0-46-7A-20	WDAP-8350	2.1.50.3	192.168.1.10		192.168.1.10	255.255.255.0	192.168.1.10	Outdoor Dual Band Rad

1 Select Adapter : 192.168.1.99 (EC:A8:6B:D6:99:C4)

☐ Control Packet Force Broadcast

Update Device Update Multi Update All

Connect to Device 3

Device : WDAP-8350 (A8-F7-E0-46-7A-20) Get Device Information done.

Download path: http://www.planet.com.tw/en/product/images/48589/Planet_Utility.zip

Management – Web UI



Web UI – Setup Wizard

600Mbps 802.11n Dual Band Outdoor Wireless CPE

[Log Off](#)

Basic Settings

Status

Interfaces

Transmit/Receive

Client Associations

Advanced Configuration

Ethernet Settings

Wireless Settings

Radio

VAP

WDS

Location

Services

Web Server

NTP

Maintenance

Configuration

Upgrade

View settings for network interfaces

Click "Refresh" button to refresh the page.

[Refresh](#)

Wired Settings

[\(Edit \)](#)

Internal Interface

MAC Address	A8:F7:E0:46:7A:20
Management VLAN ID	1
IP Address	192.168.1.10
Subnet Mask	255.255.255.0
Static IPv6 Address	
Static IPv6 Address Prefix Length	0
IPv6 Autoconfigured Global Addresses	
IPv6 Link Local Address	fe80::aaf7:e0ff:fe46:7a20
IPv6 DNS Server 1	
IPv6 DNS Server 2	
Default IPv6 Gateway	::
DNS Server 1	
DNS Server 2	
Default Gateway	192.168.1.254

Wireless Settings

[\(Edit \)](#)

Radio 1

MAC Address	A8:F7:E0:46:7A:20
Mode	IEEE 802.11b/g/n
Channel	6
Channel Utilization	11%

Radio 2

MAC Address	A8:F7:E0:46:7A:30
Mode	IEEE 802.11a/n
Channel	153
Channel Utilization	0%



This page displays current Ethernet (Wired) and Wireless settings on the access point.

To configure Ethernet Settings, go to the [Ethernet \(Wired\) Settings](#) tab.

To configure Wireless Settings, go to the [Wireless Settings](#) tab.

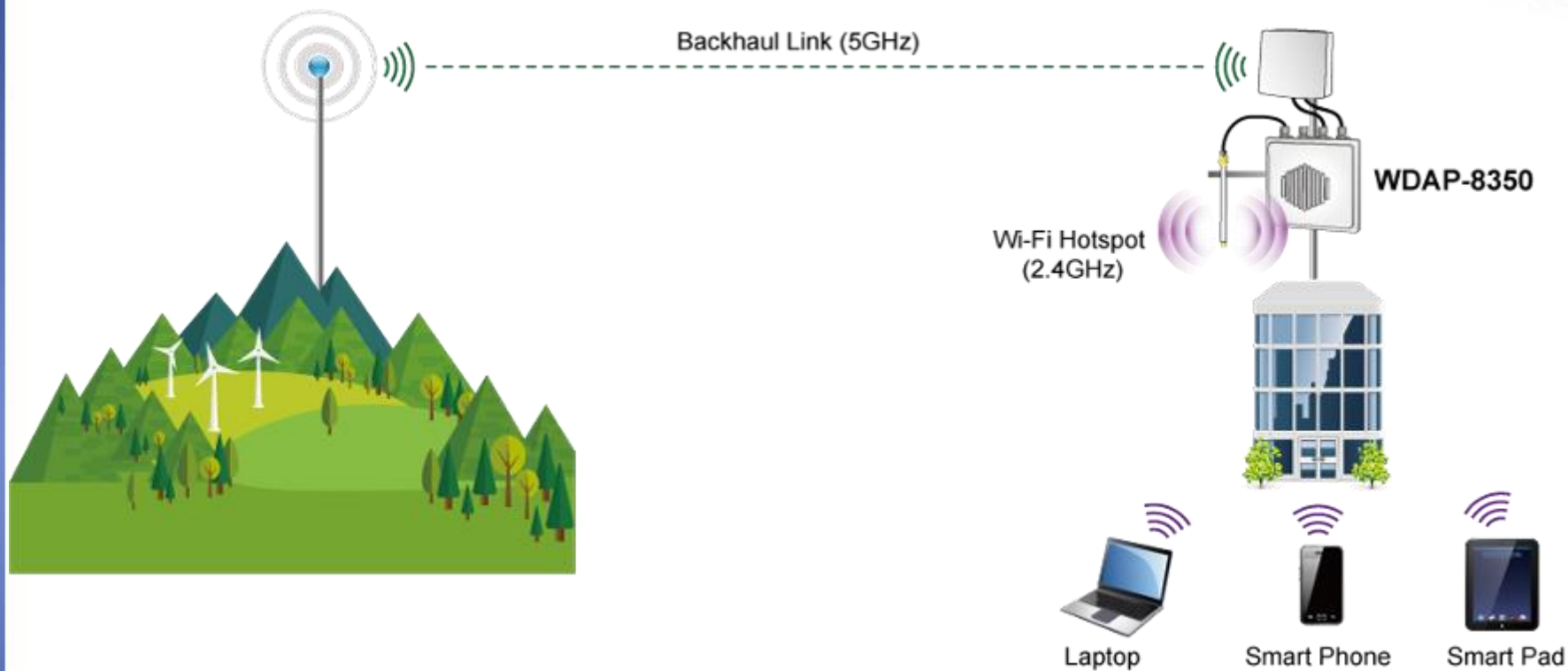
[More ...](#)

No complex settings!
Online help guides you anytime!

Applications

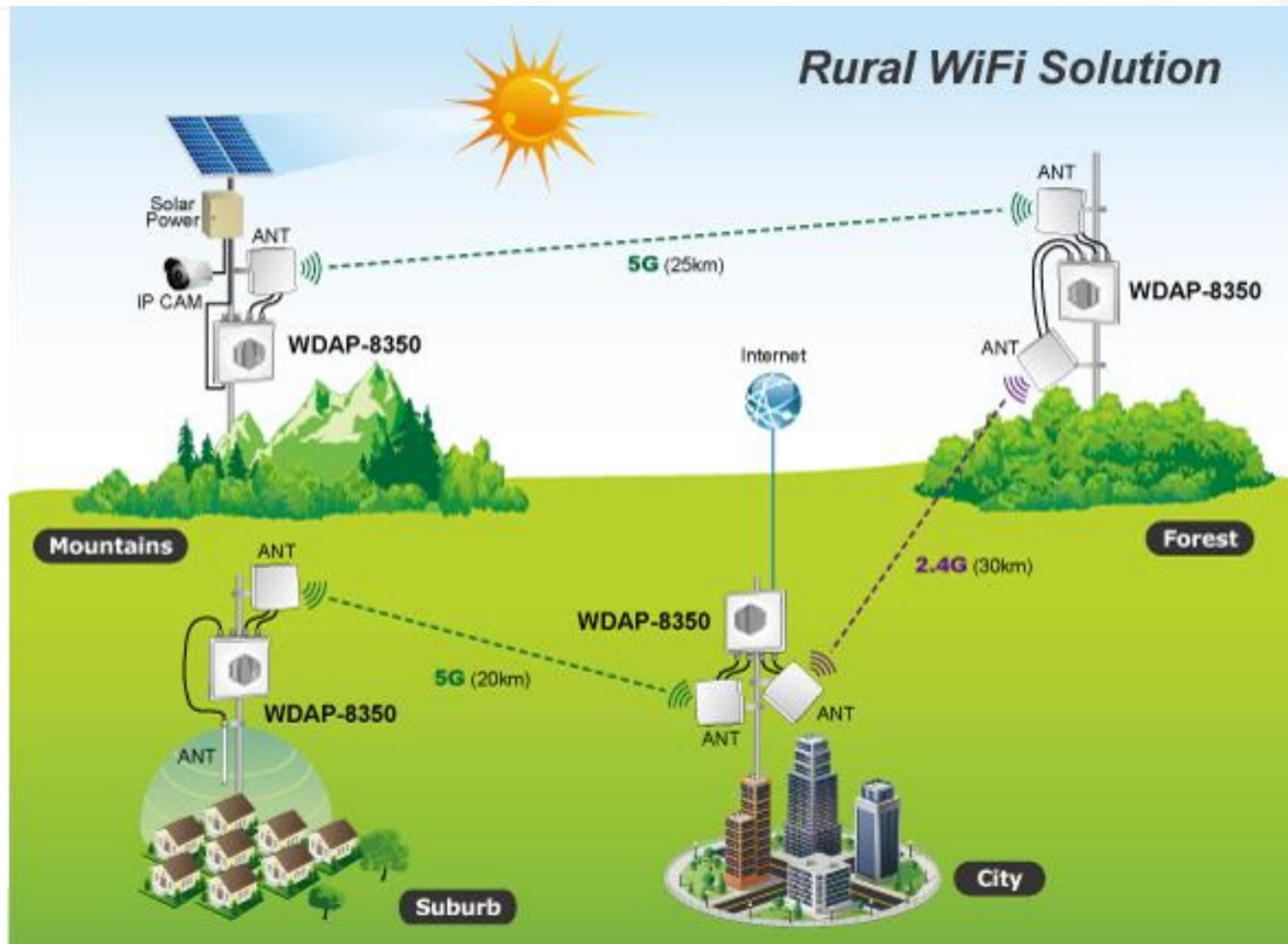


Application – Typical

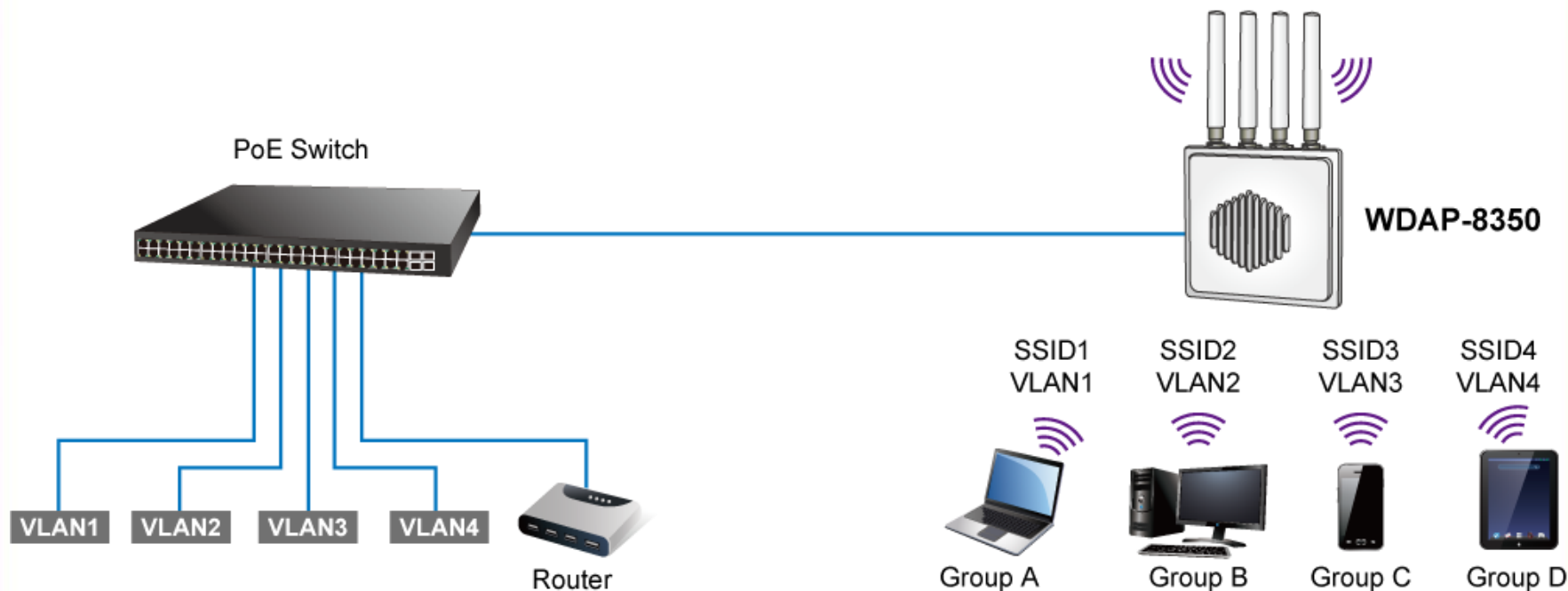


*Dual-RF enables signal relay
without performance decreased!*

Application – Rural WiFi Solution



Application - VLAN






Up to 32 VAPs can be configured!

Product Comparison



Product Comparison

Model	WDAP-8350	WNAP-7350	WNAP-6350
Features			
Flash/RAM	32MB/128MB	8MB/32MB	8MB/32MB
Ethernet Port	1 x 10/100/1000Mbps (LAN)	2 x 10/100Mbps (LAN/WAN)	2 x 10/100Mbps (LAN/WAN)
PoE	802.3at PoE	802.3af PoE	802.3af PoE
Wireless Antenna	N-type (F) x 4	N-type (F) x 2	N-type (F) x 2
Operating Temp.	-40~70 degrees C (Built-in heater)	-30~75 degrees C	-30~75 degrees C
Frequency Band	Dual Band	5GHz	2.4GHz
Wireless Speed	600Mbps (Dual-N)	300Mbps	300Mbps
Output Power	27dBm (500mW)	27dBm (500mW)	27dBm (500mW)
IP Code	IP66, Aluminum Enclosure	IP67, Aluminum Enclosure	IP67, Aluminum Enclosure
Dual-OS Backup	Yes	No	No
Smart Discovery	Yes	Yes	Yes
WDS Peers	Up to 16 at each band	Up to 8	Up to 8
Max. Wireless Client	50 at each band	30	30
Operation Modes	AP, WDS PtP/PtMP, Relay	AP, Router, WDS PtP/PtMP, Repeater, Client	AP, Router, WDS PtP/PtMP, Repeater, Client

Appendix



Appendix – Related **802.3at** PoE Switches (1/3)

GS-5220-8P2T2S	L2+ 8-Port 10/100/1000T 802.3at PoE + 2-Port 10/100/1000T + 2-Port 100/1000X SFP Managed Switch
GS-4210-8P2S	8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch
GS-4210-24P4C/ GS-4210-24PL4C	24-Port 10/100/1000T 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch
GS-4210-24P2S	24-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch
GS-4210-8P2T2S	8-Port 10/100/1000Mbps 802.3at PoE + 2-Port 10/100/1000Mbps + 2-Port 100/1000X SFP Managed Switch
IGS-10020HPT	L2+ Industrial 8-Port 10/100/1000T 802.3at PoE + 2-Port 100/1000X SFP Managed Switch with Wide Operating Temperature
IGS-504HPT	Industrial 5-Port Gigabit Switch w/4-Port 802.3at PoE+
IGS-624HPT	Industrial 4-Port 10/100/1000T 802.3at PoE+ w/2-Port 100/1000X SFP Ethernet Switch
















Appendix – Related **802.3at** PoE Switch(2/3)

IPOE-162	Industrial IEEE 802.3at Gigabit High Power over Ethernet Injector (Mid-span)
IPOE-E174	1-Port Ultra PoE to 4-Port 802.3af/at Gigabit PoE Extender
POE-171	Single-Port 10/100/1000Mbps Ultra PoE Injector (60W)
POE-173	60-watt Ultra Power over Ethernet Injector (10/100/1000Mbps, 4-pair)
POE-161	IEEE 802.3at Gigabit High Power over Ethernet Injector (Mid-span)
POE-163	IEEE 802.3at Gigabit High Power over Ethernet Injector (Mid-span)
SGS-5220-24P2X	L2+ 24-Port 10/100/1000T 802.3at PoE + 2-Port 10G SFP+ Stackable Managed Switch (440W)
SGS-6340-24P4S	Layer 3 24-Port 10/100/1000T 802.3at PoE + 4-Port 1000X SFP Stackable Managed Switch (370W)













Appendix – Related **802.3at** PoE Switch(3/3)

WGS-804HP	8-Port 10/100/1000T Wall-mounted Gigabit Ethernet Switch with 4-Port PoE+
WGSW-24040HP/ WGSW-24040HP4	24-Port 10/100/1000Mbps 802.3at PoE+ Managed Switch with 4 Shared SFP Ports
WGSW-20160HP	16-Port 10/100/1000Mbps 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch
WGSD-10020HP	16-Port 10/100/1000Mbps 802.3at PoE + 4-Port Gigabit TP/SFP Combo Managed Switch
XGSW-28040HP	L2+ 24-Port 10/100/1000Mbps 802.3at PoE + 4-Port 10G SFP+ Managed Switch with Hardware Layer 3 IPv4/IPv6 Static Routing













Appendix – 2.4GHz Antennas

Model		ANT-GR21	ANT-SE18	ANT-FP18	ANT-FP14D	ANT-FP9
Feature						
Antenna Type		Uni-directional Grid	Uni-directional Sector	Uni-directional Flat panel	Uni-directional Flat panel Dual Polarity	Uni-directional Flat panel
Gain (dBi)		21	12~18	18	14	9
Beamwidth Degree	Horizontal	8 	60-120 adjustable 	30 	30 	75 
	Vertical	5 	10 	20 	30 	75 
Connector		N-type (F)	N-type (F)	N-type (F)	N-type (F)	N-type (F)
Mounting Type		Mast Mount	Mast or Wall Mount	Mast or Wall Mount	Mast or Wall Mount	Wall Mount











Appendix – 2.4GHz Antennas

Model		ANT-YG20	ANT-YG13	ANT-OM15	ANT-OM8
Feature					
Antenna Type		Uni-directional, Yagi	Uni-directional, Yagi	Omni-directional, General purpose	Omni-directional, General purpose
Gain (dBi)		20	13	15	8
Beamwidth Degree	Horizontal	20 	25 	360 	360 
	Vertical	15 	15 	10 	10 
Connector		N-type (F)	N-type (F)	N-type (F)	N-type (F)
Mounting Type		Mast Mount	Mast Mount	Mast Mount	Mast Mount

Appendix – 5GHz Antennas

Model		ANT-FP23A	ANT-FP18A	ANT-FP14AD	ANT-SE21A
Feature					
Antenna Type		Uni-directional Flat panel	Uni-directional Flat panel	Uni-directional Flat panel Dual Polarity	Uni-directional, Yagi
Gain (dBi)		23	18	14	21
Beamwidth Degree	Horizontal	9 	10 	30 	60-120 adjustable 
	Vertical	9 	10 	30 	10 
Connector		N-type (F)	N-type (F)	N-type (F)	N-type (F)
Mounting Type		Mast or Wall Mount	Mast or Wall Mount	Mast or Wall Mount	Mast Mount

Appendix – 5GHz Antennas

Model		ANT-SE17A	ANT-OM10A	ANT-OM5D (Dual-Band)	
Feature					
Antenna Type		Uni-directional, Yagi	Omni-directional, General purpose	Omni-directional, General purpose Dual Band	
Gain (dBi)		20	13	2.4G: 4.5	5G: 7
Beamwidth Degree	Horizontal	120 	360 	360 	
	Vertical	10 	10 	2.4G: 80 	5G: 55 
Connector		N-type (F)	N-type (F)	N-type (M)	
Mounting Type		Mast Mount	Mast Mount	N/A	

Appendix - Accessories

For WDAP-8350

Model		WL-SMA-0.6	WL-SMA-6	WL-NM-0.6	WL-MF-0.6
Feature					
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

Model		WL-N-10	WL-N-0.6	WL-MMC	WL-LTNA
Feature					
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				



ACTIVATING IP POWER