100mm

133.3mm

HYUNDAI
ELECTRONICS

5.8G 450MBPS 3KM WIRELESS CPE

HYU-NE-SW-WAP5KM001

USER MANUAL

HYUNDAI ELECTRONICS INDUSTRIES CORPORATION

1- Product Overview



Stable Signal PtP I PtMP | One-Key Pairing | Powered by PoE/DC | High Speed Connection | Long Range Transmission | IP65 Rating for Outdoor

CPE is a professional-grade wireless bridge access device designed for long-distance and high-stability network transmission. It provides reliable wireless connectivity for applications such as wireless broadband access, video surveillance backhaul, and enterprise network extension. Featuring robust hardware design, flexible deployment options, and easy configuration, the CPE helps reduce installation cost while ensuring stable network performance.

2- Model List

Model Name	HYU-NE-SW-WAP5KM001
Picture	
Wireless Standards	802.11a/n/ac 450Mbps 11ft
Transmission rate	450Mbps
Frequency Band	5.8GHz:5.15GHz~5.825GHz
Channel	36、40、44、48、52、60、64、149、153、157、161、165
Transmission Range	3KM
Antenna	Built-in 13dBi
Beamwidth	Horizontal 60° Vertical 60°
Network Interface	1×10/100Mbps POE/WAN 1x10/100Mbps LAN
Power Supply	24V 0.5A PoE / 12V1A DC
Suggested Application	PtP、PtMP (up to eight points)
Mounting options	Pole/Wall Mount
SSID Features	Multiple SSIDs supported; Hide/Broadcast; Unicode characters supported
Wireless Security	OPEN, WPA/WPA2-PSK (TKIP/AES), MAC Filtering
Management & Stability	Watchdog supported, Smart Management
Operating Modes	Bridge Access Point | Bridge Client
Easy Installation	One-Key-Pairing
Operating TEMP/ Humidity	-30°C ~ 55°C; 5%~90% RH (non-condensing)
Storage TEMP/ Humidity	-40°C ~ 70°C; 5%~95% RH (non-condensing)

3- Interface Overview



DIP Switch



DC Power

- When the dip switch is set to "M", the device operates in Access Point mode; when set to "S", it operates in Client mode.
- DC power interface: 5.5 × 2.1 × 9.5 mm DC jack, 12V / 1A or 24V/1A input (Voltage depends on the model).

Model: HYU-NE-SW-WAPC5001



- LED Indicators

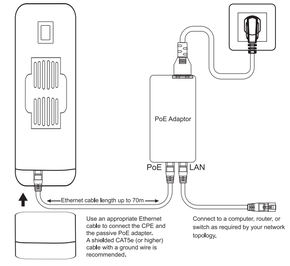
Bridge Access Point(Set to NVR Mode)		Bridge Client/Set to IPC Mode	
Transmit Power	LED Indicator	Received Signal Strength	LED Indicator
< 17 dBm	SIG1 ON	≥ -65 dBm	SIG1 ON
17 dBm to 19 dBm	SIG1 + SIG2 ON	-65 dBm to -74 dBm	SIG1 + SIG2 ON
20 dBm to 23 dBm (Maximum Power)	SIG1 + SIG2 + SIG3 + SIG4 ON	-75 dBm to -84 dBm	SIG1 + SIG2 + SIG3 ON
Connection Failure	SIG1, SIG2, SIG3 blink sequentially	< -85 dBm	SIG1 + SIG2 + SIG3 + SIG4 ON
Ethernet (LAN1&LAN2)	LED Indicator	Connection Failure	SIG1, SIG2, SIG3 blink sequentially
Ethernet Connection Failure	Solid ON	PWR	LED Indicator
Ethernet Connected & Transmitting	Blinking	Power Connected	ON
Dip SW Reset	LED Indicator (On the backside of Bridge)	Power Disconnected	Off
Short Press	Incrementally LED/Unit tube value by 1 (1→2→3→4→5→6→1)	WiFi	LED Indicator
Long Press (≥5 sec)	Configuration is applied within ~5 seconds	Wireless Link Active	Solid On
	Restores device to factory settings	Wireless Link Failure	Off

4-Connection and Installation

Connect and mount the and power adapter as shown below.
The following introduction takes as an example.

- Connecting CPE and Power Adapter

Connect the CPE and PoE Adapter as shown in the figure below.



Use an appropriate Ethernet cable to connect the CPE and the passive PoE adapter. A shielded CAT5e (or higher) cable with a ground wire is recommended.

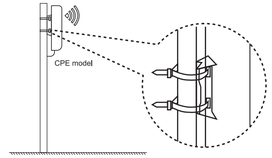
Connect to a computer, router, or switch as required by your network topology.

When all connections are finished, slide the cover back into place on the CPE.

4-Connection and Installation

- Mounting CPE

At the selected site, roughly align the CPE in the direction you have planned.



5- Quick Setup

5.1 One-to-One Bridge Pairing / Easy One Key Pairing



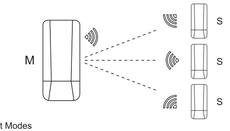
1. Set Modes
- Configure one network bridge dip switch to "M" (Access Point mode) and the other to "S" (Client mode).

2. Power On and Initiate
- Power on both bridges.
- Briefly press the Digital Switch / Reset button; each press increments the numeric display by one.

3. Match Display Values
- First, set the numeric display on the "M" bridge (Access Point mode)
- Then, set the "S" bridge (Client mode) display to the same value as the "M" bridge (Access Point mode)
- Once matched, the two bridges are successfully paired.

5- Quick Setup

5.2 One-to-Many Bridge Pairing (up to 8 devices)



1. Set Modes
- Configure one network bridge dip switch to "M" (Access Point mode) and the other bridges to "S" (Client mode).

2. Power On and Initiate
- Power on all bridges.
- Briefly press the Digital Switch / Reset button; each press increments the numeric display by one.

3. Match Display Values
- First, set the numeric display on the "M" bridge (Access Point mode)
- Then, individually adjust the numeric displays on each "S" bridge (Client mode) to match the "M" bridge value (Access Point mode).

4. Completion
- Once all displays match the "M" bridge(Access Point mode), the bridges are successfully paired.

6- LED Numeric Display and Channel Reference

Display Number	0	1	2	3	4
Channel (2.4 GHz)	1	2	3	4	5
Channel (5.8 GHz)	36	44	52	60	100

Display Number	5	6	7	8	9
Channel (2.4 GHz)	6	7	8	9	10
Channel (5.8 GHz)	108	116	124	149	157

Display Number	A	B	C
Channel (2.4 GHz)	11	12	13
Channel (5.8 GHz)	-	-	-

7- Computer WEB Login

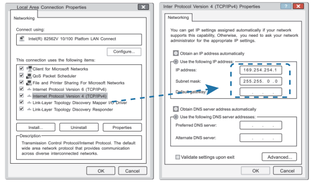
Step 1: Configure Computer IP

① Open the Network Settings on your computer.

② Navigate to the Ethernet adapter properties.

③ Select Internet Protocol Version 4 (TCP/IPv4) and choose "Use the following IP address".

④ Set the IP address to 169.254.254.X (X = 1–253) and Subnet Mask to 255.255.0.0. Apply the changes.



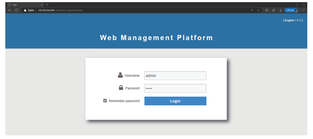
7- Computer WEB Login

Step 2: Access the Device

① Open a web browser and enter the device IP: 169.254.254.254 in the address bar.

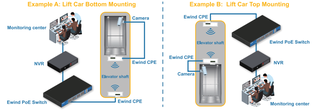
② When prompted, enter Username and Password:
The default User Name: admin
The default Password: admin

③ Click [Login] to access the device configuration interface.



8- Application

8.1 Point-to-Point - Elevator video surveillance application



8.2 Point-to-Multipoint - Campus monitoring, and outdoor video backhaul application



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