

Industrial 802.11a/b/g/n Serial/Ethernet to Wireless Client

AWK-1137C

Quick Installation Guide

Moxa AirWorks

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Overview

The AWK-1137C industrial Wi-Fi client meets the growing need for faster data transmission speeds and wider coverage by supporting IEEE 802.11n technology with a net data rate of up to 300 Mbps. The AWK-1137C combines two adjacent 20 MHz channels into a single 40 MHz channel to deliver a potent combination of greater reliability and more bandwidth. The AWK-1137C can operate on either the 2.4 or the 5 GHz band and is backward compatible with existing 802.11a/b/g deployments.

Hardware Setup

This section covers the hardware setup for the AWK-1137C.

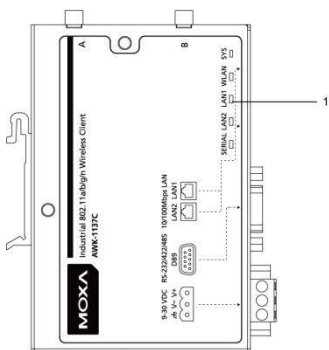
Package Checklist

Moxa's AWK-1137C is shipped with the following items. If any of these items is missing or damaged, please contact your customer service representative for assistance.

- 1 AWK-1137C wireless client
- 2 2.4/5 GHz antennas: ANT-WDB-ARM-0202
- DIN-rail kit
- Quick installation guide (printed)
- Warranty card

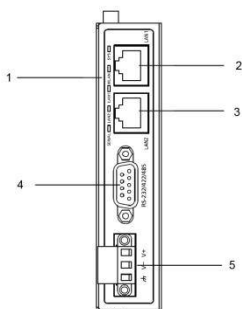
Panel Layout of the AWK-1137C

Front Panel

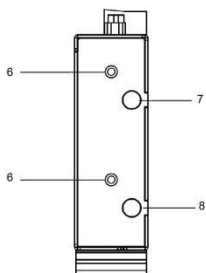


1. System LEDs: SYS, WLAN, LAN1, LAN2, and SERIAL
2. LAN1: 10/100 BaseT(X) RJ45 port
3. LAN2: 10/100 BaseT(X) RJ45 port
4. RS-232/422/485 DB9 serial port
5. 3-pin terminal block (ground/-/+)
6. M3 screw holes for antenna bracket
7. Antenna B SMA
8. Antenna A SMA

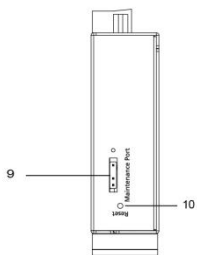
Side Panel



Top Panel

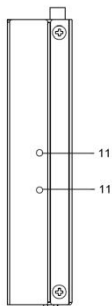


Bottom Panel

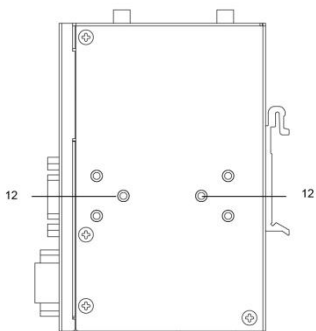


- 9. 3-pin maintenance port for engineers
- 10. Reset button
- 11. Screw holes for DIN-rail mounting kit
- 12. Screw holes for wall-mounting kit

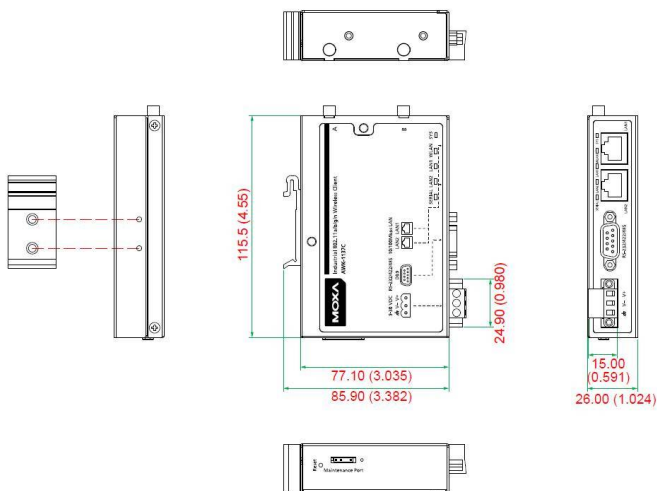
Rear Panel



Back Panel



Mounting Dimensions



Unit = mm (inch)

DIN-Rail Mounting

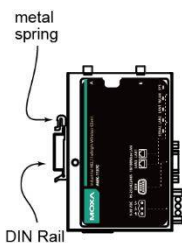
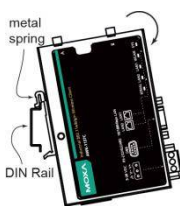
The aluminum DIN-rail attachment plate comes attached to the back panel of the AWK-1137C when you take it out of the box. If you need to reattach the DIN-rail attachment plate to the AWK-1137C, make sure the stiff metal spring is situated towards the top, as shown in the figures below:

STEP 1:

Insert the top of the DIN rail into the slot just below the stiff metal spring.

STEP 2:

Gently push the device towards the DIN rail until the DIN-rail attachment unit snaps into place as shown below:



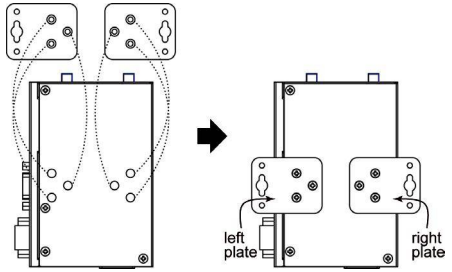
To remove the AWK-1137C from the DIN rail, reverse steps 1 and 2.

Wall Mounting (Optional)

For some applications, it may be more convenient to mount the AWK-1137C to a wall, as illustrated below:

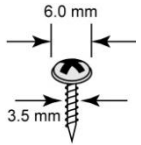
STEP 1:

Remove the aluminum DIN-rail attachment plate from the AWK-1137C, and then attach the wall-mounting plates with M3 screws, as shown in the adjacent diagrams.



STEP 2:

Mounting the AWK-1137C to a wall requires 2 screws. Use the AWK-1137C device, with wall-mounting plates attached, as a guide to mark the correct locations of the 2 screws. The heads of the screws should be less than 6.0 mm in diameter, and the shafts should be less than 3.5 mm in diameter, as shown in the figure on the right.

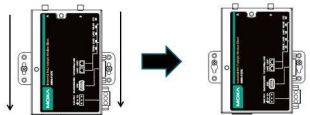


Do not drive the screws in all the way—leave a space of about 2 mm to allow room for sliding the wall-mounting panel between the wall and the screws.

NOTE Test the screw head and shank size by inserting the screws into one of the keyhole shaped apertures of the wall-mounting plates before they are fixed to the wall.

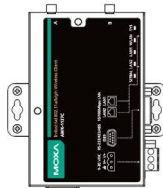
STEP 3a:

Once the screws are fixed into the wall, insert the two screw heads through the large opening of the keyhole-shaped apertures, and then slide the AWK-1137C downwards, as indicated to the right. Tighten the two screws for added stability.



STEP 3b:

Alternatively, insert four screws directly through the AWK-1137C into the wall.





WARNING

- This equipment is intended to be used in a Restricted Access Location, such as a dedicated computer room where only authorized service personnel or users can gain access. Such personnel must be instructed about the fact that the metal chassis of the equipment is extremely hot and may cause burns.
- Service personnel or users have to pay special attention and take special precautions before handling this equipment.
- Only authorized, well-trained professionals should be allowed to access the Restricted Access Location. Access should be controlled by the authority responsible for the location with lock and key or a security identity system.
- **External metal parts are hot!!** Pay special attention or use special protection before handling this equipment.

Wiring Requirements



WARNING

Safety First!

Be sure to disconnect the power cord before installing and/or wiring your Moxa AWK-1137C.

Calculate the maximum possible current in each power wire and common wire. Observe all electrical codes that dictate the maximum current allowed for each wire size. If the current goes above the maximum ratings, the wiring could overheat, causing serious damage to your equipment.

You should also pay attention to the following items:

- Use separate paths to route wiring for power and devices. If power wiring and device wiring paths must cross, make sure the wires are perpendicular at the intersection point.

NOTE Do not run signal or communications wiring and power wiring in the same wire conduit. To avoid interference, wires with different signal characteristics should be routed separately.

- You can use the type of signal transmitted through a wire to determine which wires should be kept separate. The rule of thumb is that wiring with similar electrical characteristics can be bundled together.
- Keep input wiring and output wiring separate.
- It is strongly advised that you label wiring to all devices in the system when necessary.



ATTENTION

This product is intended to be supplied by a Listed Power Unit marked "Class 2" or "LPS" and rated O/P: 11.79 W.



ATTENTION

Make sure the external power adapter (includes power cords and plug assemblies) provided with the unit is certified and suitable for use in your country.

Grounding the Moxa AWK-1137C

Grounding and wire routing help limit the effects of noise due to electromagnetic interference (EMI). Run the ground connection from the ground screw to the grounding surface prior to connecting devices.

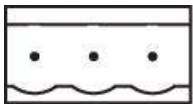


ATTENTION

This product is intended to be mounted to a well-grounded mounting surface, such as a metal panel. There must be no electrical potential difference between any two grounding points; otherwise, there is a risk that the device could be destroyed.

Wiring the Redundant Power Inputs

The top two pairs of contacts of the 10-contact terminal block connector on the AWK-1137C's top panel are used for the AWK-1137C's two DC inputs. Top and front views of the terminal block connector are shown below:

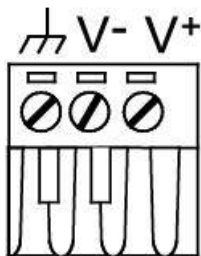


STEP 1:

Insert the negative/positive DC wires into the V-/V+ terminals.

STEP 2:

To keep the DC wires from pulling loose, use a small flat-blade screwdriver to tighten the wire-clamp screws on the front of the terminal block connector.



STEP 3:

Insert the plastic terminal block connector prongs into the terminal block receptor, which is located on the AWK-1137C's side panel.

NOTE Input Terminal Block (CN1) is suitable for wire size range of 12-28 AWG (3.31-0.0804 mm²) and a torque value of 4.5 lb-in (0.51 Nm)



ATTENTION

If the AWK-1137C is connected to a motor or other similar type of equipment, be sure to use power isolation protection. Before connecting the AWK-1137C to the DC power inputs, make sure the DC power source voltage is stable.

Using the Reset Button

The **Reset** button is used to load the factory default settings. Use a pointed object to hold the **Reset** button down for five seconds to load the factory defaults.

Activating AeroMag Function

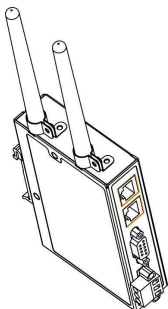
Push the **Reset** Button 5 times to activate AeroMag. To deactivate it again, push the **Reset** Button 3 times.

Installing the Antenna Locking Clamp

Utilize the antenna locking clamp to secure the antennas to the AWK-1137C for added stability when you install the device in a high-vibration environment.

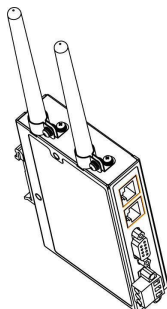
STEP 1:

Slide the clamps into the antenna port.



STEP 2:

Use screw to fix the clamps to the side panel of the AWK-1137C as shown below:



Communication Connections

10/100BaseT(X) Ethernet Port Connection

The 10/100BaseT(X) ports located on the AWK-1137C's front panel are used to connect to Ethernet-enabled devices.

The pinouts for both the MDI (NIC-type) and MDI-X (HUB/switch-type) ports as shown below:

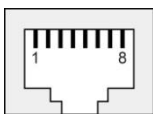
MDI Port Pinouts

Pin	Signal
1	Tx+
2	Tx-
3	Rx+
6	Rx-

MDI-X Port Pinouts

Pin	Signal
1	Rx+
2	Rx-
3	Tx+
6	Tx-

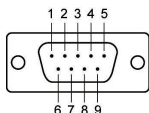
8-pin RJ45



RS-232/422/485 Serial Port

The AWK-1137C has 1 RS-232/422/485 serial port with DB9 connector for serial to WLAN connectivity. The pin assignments for the serial port are shown below:

Pin	RS-232	RS-422/485 (4W)	RS-485 (2W)
1	DCD	TxD-(A)	-
2	RxD	TxD+(B)	-
3	TxD	RxD+(B)	Data+(B)
4	DTR	RxD-(A)	Data-(A)
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-
9	-	-	-



LED Indicators

The front and side panel of the Moxa AWK-1137C contains several LED indicators. The function of each LED is described in the table below:

LED	Color	State	Description
SYS	Green	On	System start up complete and the system is in operation
		Blinking + Beeps (Interval: 1 second)	Device has been located by the Wireless Search Utility
	Red	On	System is booting or a system booting error has occurred
		Blinking (Interval: 0.5 second)	IP address conflict
		Blinking (Interval: 1 second)	Cannot obtain an IP address from DHCP server
WLAN	Green	On (RSSI > 35)	WLAN interface has connected
		Blinking	Data communication via WLAN
	Amber	On (RSSI < 35)	WLAN interface has connected
		Blinking	Data communication via WLAN
LAN1	Green	On	Ethernet LAN 1 interface has connected
		Blinking	Data communication via Ethernet LAN 1
LAN2	Green	On	Ethernet LAN 2 interface has connected
		Blinking	Data communication via Ethernet LAN 2
Serial	Amber	Blinking	Data Transmission via serial data port

Specifications

WLAN Interface	
Standards	IEEE 802.11a/b/g/n for Wireless LAN IEEE 802.11i for Wireless Security IEEE 802.3 for 10BaseT IEEE 802.3u for 100BaseT(X) IEEE 802.1Q VLAN
Spread Spectrum and Modulation (typical)	<ul style="list-style-type: none"> • DSSS with DBPSK, DQPSK, CCK • OFDM with BPSK, QPSK, 16QAM, 64QAM • 802.11b: CCK @ 11/5.5 Mbps, DQPSK @ 2 Mbps, DBPSK @ 1 Mbps • 802.11a/g: 64QAM @ 54/48 Mbps, 16QAM @ 36/24 Mbps, QPSK @ 18/12 Mbps, BPSK @ 9/6 Mbps • 802.11n: 64QAM @ 300 Mbps to BPSK @ 6.5 Mbps (multiple rates supported)

Operating Channels (central frequency)	<p>US:</p> <ul style="list-style-type: none"> • 2.412 to 2.462 GHz (11 channels) • 5.180 to 5.240 (4 channels) • 5.260 to 5.320 (4 channels) • 5.500 to 5.700 GHz (8 channels, excluding 5.600 to 5.640 GHz) • 5.745 to 5.825 GHz (5 channels) <p>EU:</p> <ul style="list-style-type: none"> • 2.412 to 2.472 GHz (13 channels) • 5.180 to 5.240 GHz (4 channels) • 5.260 to 5.320 GHz (4 channels) • 5.500 to 5.700 GHz (11 channels) <p>JP:</p> <ul style="list-style-type: none"> • 2.412 to 2.484 GHz (14 channels) • 5.180 to 5.240 GHz (4 channels) • 5.260 to 5.320 GHz (4 channels) • 5.500 to 5.700 GHz (11 channels)
Security	<ul style="list-style-type: none"> • SSID broadcast enable/disable • Firewall for MAC/IP/Protocol/Port-based filtering • 64-bit and 128-bit WEP encryption • WPA/WPA2-Personal and Enterprise (IEEE 802.1X/RADIUS, TKIP, and AES)
Transmission Rates	<ul style="list-style-type: none"> • 802.11b: 1, 2, 5.5, 11 Mbps • 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps • 802.11n: 6.5 to 300 Mbps (multiple rates supported)
Transmitter Power	<p>802.11b:</p> <ul style="list-style-type: none"> • Typ. 26±1.5 dBm @ 1 Mbps • Typ. 26±1.5 dBm @ 2 Mbps • Typ. 26±1.5 dBm @ 5.5 Mbps • Typ. 25±1.5 dBm @ 11 Mbps <p>802.11g:</p> <ul style="list-style-type: none"> • Typ. 23±1.5 dBm @ 6 to 24 Mbps • Typ. 22±1.5 dBm @ 36 Mbps • Typ. 20±1.5 dBm @ 48 Mbps • Typ. 19±1.5 dBm @ 54 Mbps <p>802.11n (2.4 GHz):</p> <ul style="list-style-type: none"> • Typ. 23±1.5 dBm @ MCS0/8 20 MHz, • Typ. 17±1.5 dBm @ MCS7/15 20 MHz • Typ. 23±1.5 dBm @ MCS0/8 40 MHz, • Typ. 17±1.5 dBm @ MCS7/15 40 MHz <p>802.11a:</p> <ul style="list-style-type: none"> • Typ. 23±1.5 dBm @ 6 to 24 Mbps • Typ. 21±1.5 dBm @ 36 Mbps • Typ. 20±1.5 dBm @ 48 Mbps • Typ. 18±1.5 dBm @ 54 Mbps <p>802.11n (5 GHz):</p> <ul style="list-style-type: none"> • Typ. 23±1.5 dBm @ MCS0/8 20 MHz, • Typ. 18±1.5 dBm @ MCS7/15 20 MHz • Typ. 23±1.5 dBm @ MCS0/8 40 MHz, • Typ. 18±1.5 dBm @ MCS7/15 40 MHz
<p>Note: Based on regional regulations, the maximum transmission power allowed on the UNII bands is restricted in the firmware, as indicated below:</p>	

	US	EU	JP
2.4 GHz	26 dBm	18 dBm	18 dBm
5 GHz (UNII-1)	23 dBm	23 dBm	23 dBm
5 GHz (UNII-2)	23 dBm	23 dBm	23 dBm
5 GHz (UNII-2e)	23 dBm	23 dBm	23 dBm
5 GHz (UNII-3)	23 dBm	--	--

Receiver Sensitivity	<ul style="list-style-type: none"> • 802.11b: -89 dBm @ 1 Mbps, -89 dBm @ 2 Mbps -89 dBm @ 5.5 Mbps, -88 dBm @ 11 Mbps • 802.11g: -88 dBm @ 6 Mbps, -88 dBm @ 9 Mbps -88 dBm @ 12 Mbps, -87 dBm @ 18 Mbps -84 dBm @ 24 Mbps, -81 dBm @ 36 Mbps -77 dBm @ 48 Mbps, -75 dBm @ 54 Mbps • 802.11n (2.4 GHz): -70 dBm @ MCS7 20 MHz, -70 dBm @ MCS15 20 MHz, -64 dBm @ MCS7 40 MHz, -65 dBm @ MCS15 40 MHz • 802.11a: -90 dBm @ 6 Mbps, -88 dBm @ 9 Mbps -87 dBm @ 12 Mbps, -85 dBm @ 18 Mbps -81 dBm @ 24 Mbps, -78 dBm @ 36 Mbps -74 dBm @ 48 Mbps, -73 dBm @ 54 Mbps • 802.11n (5 GHz): -69 dBm @ MCS7 20 MHz, -70 dBm @ MCS15 20 MHz, -64 dBm @ MCS7 40 MHz, -66 dBm @ MCS15 40 MHz
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Protocol Support

General Protocols	Proxy ARP, DNS, HTTP, HTTPS, IP, ICMP, SNMP, TCP, UDP, RADIUS, SNMP, DHCP, VLAN
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Interface

Default Antennas	2 dual-band omni-directional antennas, 1.88 dBi, RP-SMA (male)
Connector for External Antennas	RP-SMA (female), 500 V insulation
LAN Ports	2, RJ45, 10/100BaseT(X) auto negotiation speed, F/H duplex mode, and auto MDI/MDI-X connection
Serial Port	1, RS-232/422/485, DB9 male connector
Reset	Present
LED Indicators	SYS, WLAN, LAN1, LAN2, Serial

Physical Characteristics

Housing	Metal, providing IP30 protection
Weight	470 g (1.03 lb)
Dimensions	77.1 x 115.5 x 26 mm (3.035 x 4.55 x 1.024 in)
Installation	DIN-rail mounting (standard), wall mounting (optional)

Environmental Limits

Operating Temperature	Standard Models: 0 to 60°C (32 to 140°F) Wide Temp. Models: -40 to 75°C (-40 to 167°F)
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Storage Temperature	-40 to 85°C (-40 to 185°F)
Ambient Relative Humidity	5% to 95% (non-condensing)
Power Requirements	
Input Voltage	9 to 30 VDC
Input Current	1.3 A @9 VDC, 0.39 A @30 VDC
Connector	3-pin removable terminal block, 500 V insulation
Power Consumption	11.7 W
Reverse Polarity Protection	Present
Standards and Certifications	
Safety	UL 60950-1, EN 60950-1
EMC	EN 61000-6-2/61000-6-4
EMI	CISPR 22, FCC Part 15B Class B
EMS	IEC 61000-4-2 ESD: Contact 8 kV; Air 15 kV IEC 61000-4-3 RS: 80 MHz to 1 GHz: 10 V/m IEC 61000-4-4 EFT: Power 2 kV; Signal 1 kV IEC 61000-4-5 Surge: Power 2 kV; Signal 1 kV IEC 61000-4-6 CS: 10 V IEC 61000-4-8
Radio	EN 301 489-1/17, EN 300 328, EN 301 893, MIC, FCC ID SLE-1137C, WPC, ANATEL, KC, RCM, SRRC
Note: Check Moxa's website for the most up-to-date certification status.	
Reliability	
MTBF	1,125,942 hrs
Warranty	
Warranty Period	5 years
Details	See www.moxa.com/support/warranty.aspx



ATTENTION

- The AWK-1137C is **NOT** a portable mobile device and should be located at least 20 cm away from the human body.
- The AWK-1137C is **NOT** designed for the general public. A well-trained technician is required to deploy AWK-1137Cs and safely establish a wireless network.



ATTENTION

Use the antennas correctly: The 2.4 GHz antennas are needed when the AWK-1137C operates in IEEE 802.11b/g/n. The 5 GHz antennas are needed for operation in IEEE802.11a/n. Make sure that the antennas are installed in a safe area, which is covered by a lightning protection or surge arrest system.



ATTENTION

This device complies with part 15 of the FCC Rules. The operation of this device is subject to the following conditions:

1. This device must not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operations.



ATTENTION

Do not locate the antenna near overhead power lines or other electric light or power circuits, or where it can come into contact with such circuits. When installing the antenna, take extreme care not to come into contact with such circuits, because they may cause serious injury or death. For proper installation and grounding of the antenna, refer to national and local codes (for example, U.S.: NFPA 70; National Electrical Code (NEC) Article 810; Canada: Canadian Electrical Code, Section 54).

NOTE For installation flexibility, you may select either antenna A or antenna B on the top panel. Make sure the antenna connection matches the antennas configured in the AWK-1137C web interface.

To protect the connectors and RF module, all radio ports should be terminated by either an antenna or a terminator. We strongly recommend using resistive terminators for terminating the unused antenna ports.

Software Setup

This section covers the software setup for AWK models in general.

How to Access the AWK

Before installing the AWK device (AWK), make sure that all items in the package checklist are provided in the product box. You will also need access to a notebook computer or PC equipped with an Ethernet port.

- **Step 1: Select a suitable power source and plug in the AWK.**

The AWK can be powered by DC power ranging from **12 VDC to 48 VDC**.

- **Step 2: Connect the AWK to the notebook or PC via the AWK's LAN port.**

The LED indicator on the AWK's LAN port will light up when a connection is established.



NOTE If you are using an Ethernet-to-USB adapter, follow the instructions in the user's manual provided with the adapter.

- **Step 3: Set up the computer's IP address**

Choose an IP address for the computer that is on the same subnet as the AWK. Since the AWK's default IP address is **192.168.127.253**, and the subnet mask is **255.255.255.0**, set the IP address to **192.168.127.xxx**, where xxx is a value between 1 and 252.

- **Step 4: Access the homepage of the AWK.**

Open your computer's web browser and type **http://192.168.127.253** in the address field to access the AWK's homepage. Log in using the following default username and password:

Default Username: **admin**

Default Password: **moxa**

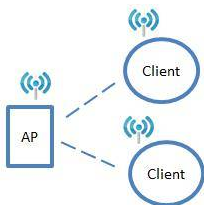
Click the **Login** button to access the homepage of the AWK device.

First-Time Quick Configuration

After successfully accessing the AWK, refer to the appropriate subsection below to quickly set up a wireless network.

NOTE Ensure that there are no IP address conflicts when you configure more than one AWK on the same subnet.

Point-to-Multipoint Scenario (AP/Client Mode)



Configuring the AWK as an AP

- **Step 1: Set the operation mode of the AWK to AP mode.** Go to **Wireless LAN Setup → Operation Mode** and select AP.

Operation Mode

Wireless enable Enable Disable

Operation mode

Submit

NOTE The default operation mode for the AWK is AP.

- **Step 2: Set up your own SSID.**

Go to **Wireless LAN Setup** → **WLAN** → **Basic WLAN Setup** and click **Edit** to set the SSID.

Status	SSID	Operation Mode	Action
Active	MOXA	AP	Edit

[Add SSID](#)

Basic WLAN Setup

Operation mode: AP

RF type: B/G/N Mixed

Channel: 6

Channel width: 20 MHz

SSID: MOXA

SSID broadcast: Enable Disable

[Submit](#)

NOTE The default SSID is MOXA.

- **Step 3: Set the RF type and Channel for the AWK.**

Go to **Wireless LAN Setup** → **WLAN** → **Basic WLAN Setup**.

We recommend that you choose the RF type 5 GHz for a relative clean medium with minimum interference.

Basic WLAN Setup

Operation mode: AP

RF type: B/G/N Mixed

Channel: 2.4GHz

Channel width: 20 MHz

SSID: MOXA

SSID broadcast: Enable Disable

[Submit](#)

For the **Channel** setting, we recommend that you choose a channel other than the default channel to avoid interference.

Basic WLAN Setup

Operation mode: AP

RF type: N Only (5GHz)

Channel: 36

Channel width: 20 MHz

SSID: MOXA

SSID broadcast: Enable Disable

[Submit](#)

Click **Submit** to apply the changes, and restart the AWK in AP mode to complete the configuration process.

Configuring the AWK as a Client

- **Step 1: Set the operation mode of the AWK to Client mode.**

Go to **Wireless LAN Setup** → **Operation Mode**, set the operation mode to Client, and then click **Submit** to apply the change.



Operation Mode

Wireless enable Enable Disable

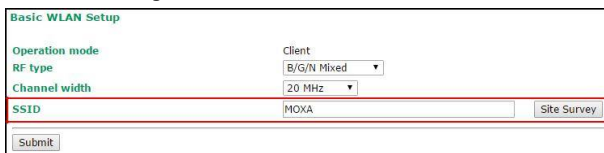
Operation mode

Submit

- AP
- AP
- Client**
- Client-Router
- Master
- Slave
- Sniffer

- **Step 2: Link to an existing SSID.**

Go to **Wireless LAN Setup** → **WLAN** → **Basic WLAN Setup** and click **Site Survey** to select an existing SSID, or directly enter an existing SSID in the text field.



Basic WLAN Setup

Operation mode Client

RF type B/G/N Mixed

Channel width 20 MHz

SSID MOXA **Site Survey**

Submit

- **Step 3: Set the RF type and Channel settings for the AWK.**

On the **Wireless LAN Setup** → **WLAN** → **Basic WLAN Setup** page, edit the RF type and Channel settings.



Basic WLAN Setup

Operation mode Client

RF type B/G/N Mixed

Channel width 20 MHz

SSID MOXA **Site Survey**

Submit

Click **Submit** to apply the changes, and restart the AWK in client mode to complete the configuration process.

Point-to-Point Scenario (slave mode)



Configuring the AWK as a Slave

- **Step 1: Set the operation mode of the AWK to Slave mode.**

Go to **Wireless LAN Setup → Operation Mode**, set the operation mode to **Slave**, and then click **Submit** to apply the change.

The screenshot shows the configuration interface for the AWK's operation mode. It includes a 'Wireless enable' section with radio buttons for 'Enable' (selected) and 'Disable'. Below this is the 'Operation mode' section with a dropdown menu. The dropdown menu is open, displaying the following options: 'Slave', 'AP', 'Client', 'Client-Router', 'Master', 'Slave' (highlighted with a red box), and 'Sniffer'. A 'Submit' button is located below the dropdown menu.

- **Step 2: Link to an existing SSID.**

Go to **Wireless LAN Setup → WLAN → Basic WLAN Setup** and click **Site Survey** to select an existing SSID, or directly enter an existing SSID in the text field.

- **Step 3: Set the RF type for the AWK.**

On the **Wireless LAN Setup → WLAN → Basic WLAN Setup** page edit the RF type setting.

Click **Submit** to apply the changes, and restart the AWK in slave mode to complete the configuration process.

FEDERAL COMMUNICATIONS COMMISSION INTERFERENCE STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/ TV technician for help.

CAUTION:

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

RF exposure warning

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter. End-users and installers must be provide with antenna installation instructions and transmitter operating conditions for satisfying RF exposure compliance.

This radio transmitter FCCID: SLE-1137C has been approved by FCC to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Antenna List

No.	Company	Part No.	Antenna Type	Peak Gain
1	Moxa	ANT-WDB-ARM-0202	Omni-directional Antenna	1.8dBi for 2.4 GHz 1.8dBi for 5.150-5.250 GHz 1.6dBi for 5.250-5.350 GHz 1.8dBi for 5.470-5.725 GHz 1.8dBi For 5.725~5.850GHz

Note: The antenna connector is Reverse SMA type

本產品符合低功率電波輻射性電機管理辦法第十二條、第十四條等條文規定：經型式認證合格之低功率射頻電機，非經許可，公司，商號或使用者均不得擅自變更頻率，加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航影響安全及干擾合法通信，經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。

前項合法通信，指一電信法規定作業之無線電通信低功率射頻電機需忍受合法通信或工業，科學及醫療用電波輻射性電機設備之干擾。