Formosa Wireless Systems®

MIMO *WiLINX* Bridge

KW50-O9500 R1 Series

User's Manual

2021/03/15 v2

TOUCH AND CONNECT!™

WNet Green Network™

Copyright

There is no any clear or implicit assurance in the user's manual of our company, including the assurance of selling or installing for the special purpose. There are rival's volumes to carry on the power to alter or revise in our company, if alter and forgive me for not issuing a separate notice. You can't duplicate any content of this manual by the written permission of our company.

About this manual

The purpose to use this manual is for install the wireless Bridge. This manual is including disposing course and method and helping the customer to solve the unpredictable problem.

The following typographical conventions are used in this purpose:

Notice:

- This indicates an important Note.

Caution:

- This indicates a warning or caution

Bold Type：Indicate the function, important words, and so on.

Index

Chapter 1 Introduction

Introduction

Thank you for choosing the Formosa's KW50-O9500 R1 Wireless Outdoor MIMO WiLINX Bridge. It is a PoE power supply, waterproof, and dust-proof wireless bridge that is specially designed for connecting among multiple network location. The KW50-O9500 R1 work on 5GHz, and it based on powerful WLAN technology that provides higher channel bandwidth for long distance connect.

Appearance of Product

KW50-O9500 R1

Features and Benefits

- Support Power over Ethernet (PoE) 48VDC
- IP68 class of enclosure
- Easy to install and friendly to user, just plug and play.
- Provides Web-based configuration utility.

Chapter 2 Hardware Installation

System Requirement

Installation of MIMO WiLINX outdoor unit of KW50-O9500 R1 system requirement:

Two PCs with automatic speed control NIC support the transfer rate of 10/100/1000 Mbps data.

- The IP address of NIC should be the same subnet with the AP, the default IP address of AP is 192.168.1.1
- Microsoft Internet Explorer 6 or above.

Produce Kit

- KW50-O9500 R1 x 1
- Injector-GT2 (48V, 0.625A) x 1
- Power Cord x 1
- Mounting Kit x 1
- User's Manual CD x 1
- Grounding Cable x 1

Hardware Installation

The following steps will help you while installing MIMO WiLINX outdoor unit.

LED Descriptions

LED	Status	Description
Power	Blue	Power ON
Ethernet	Blue	Ethernet Cable Connected
"Empty"	Blue	Flash ON, Gigabit Ethernet Active
1 / 2 / 3 RSSI	Blue	CPE：Go around while surveying (not connect yet), Represent strength of RSSI after connected. Low (1 LED) → High (3 LEDs)
Reset		Push 5 seconds then release to reset device to default

LED Definition

TOUCH AND CONNECT!™
WNet Green Network™

Chapter 3 System Setup

Factory Default Settings

We'll elaborate the KW50-O9500 R1 factory default settings. You can re-acquire these parameters by default. If necessary, please refer to the "Restore Factory Default Settings".

Item	Factory Default
Login Information	
User Name	admin
Password	password
Basic Settings	
Device Name	DEVICExxxxxx (xxxxxx Represent the last 6 digitals of the MAC address)
Ethernet Data Rate	Automatic
Spanning Tree Protocol	Enable
VLAN (802.1Q)	Disable
IP Settings	IP Type：Manual
	IP Address：192.168.1.1
	IP Subnet Mask：255.255.255.0
	Default Gateway：0.0.0.0
	Primary DNS Server：0.0.0.0
	Secondary DNS Server: 0.0.0.0
Time Settings	Time Server: None
	Time Sever Port: 123
	Time Zone: (GMT-08:00)Pacific Time(US & Canada);Tijuana
Wireless Setup	
Radio Frequency (RF)	Enable
Operation Mode	Base Station
Network ID	Wireless
RF Bandwidth	20MHz
Channel / Frequency	5020 MHz
Data Rate	SS BPSK 1/2 – SS 64QAM 5/6 , SS BPSK 1/2 – DS 64QAM 5/6
Output Power	Full

Default Settings

TOUCH AND CONNECT!™
WNet Green Network™

Using the Web Management

The KW50-O9500 R1 provides you with user-friendly Web-based management tool.

Open IE and enter the default IP address (Default: 192.168.1.1) and Login as below：

Login Interface

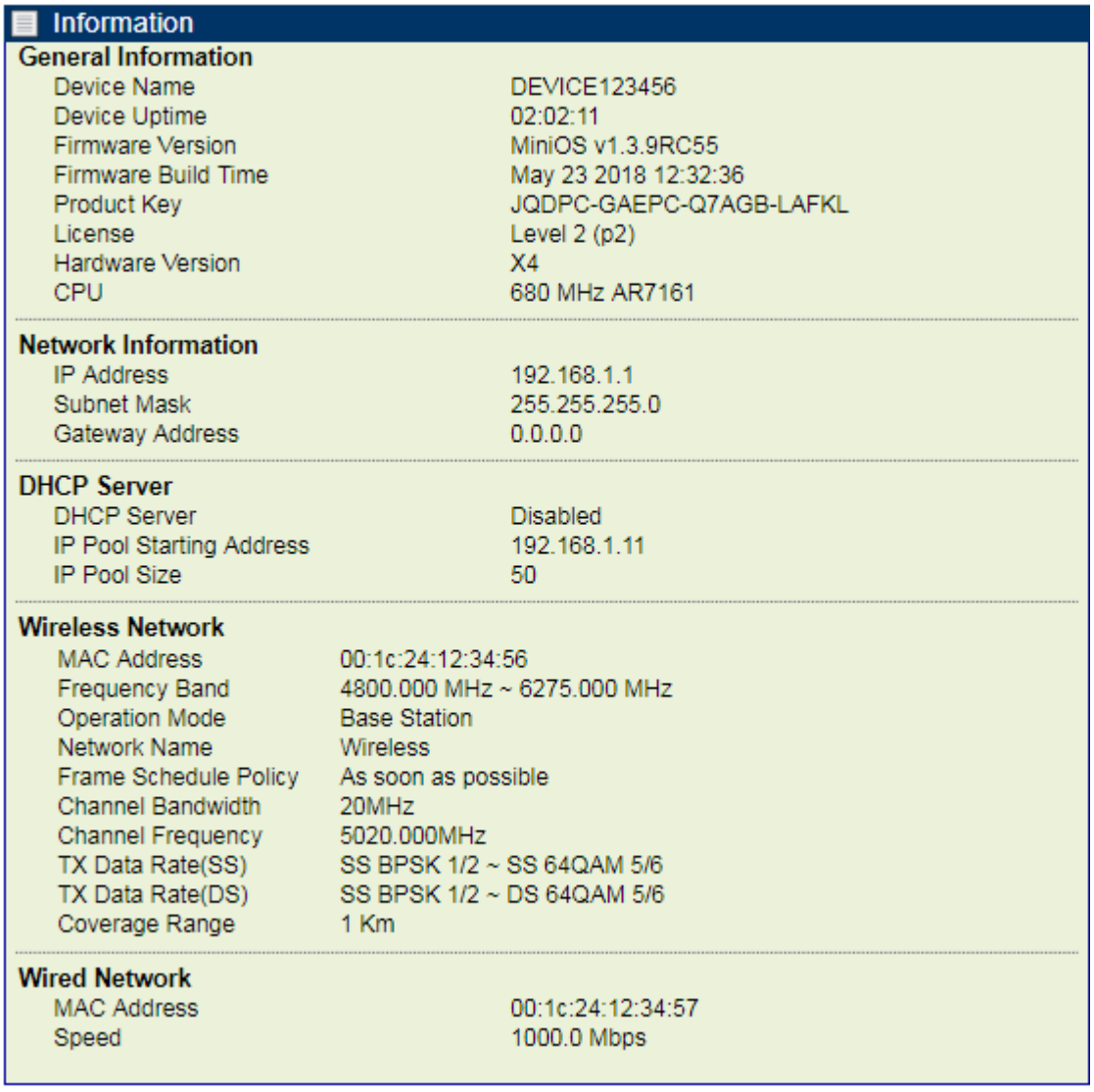
Enter the username (Default: **admin**) and password (Default: **password**) and click “Login”

Caution：

- IP address of your PC must be the same subnet of device

After login, you can check basic information of device, such as MAC address off device, Firmware version, etc.

Information



Information

General Information

Device Name	DEVICE123456
Device Uptime	02:02:11
Firmware Version	MiniOS v1.3.9RC55
Firmware Build Time	May 23 2018 12:32:36
Product Key	JQDPC-GAEPC-Q7AGB-LAFKL
License	Level 2 (p2)
Hardware Version	X4
CPU	680 MHz AR7161

Network Information

IP Address	192.168.1.1
Subnet Mask	255.255.255.0
Gateway Address	0.0.0.0

DHCP Server

DHCP Server	Disabled
IP Pool Starting Address	192.168.1.11
IP Pool Size	50

Wireless Network

MAC Address	00:1c:24:12:34:56
Frequency Band	4800.000 MHz ~ 6275.000 MHz
Operation Mode	Base Station
Network Name	Wireless
Frame Schedule Policy	As soon as possible
Channel Bandwidth	20MHz
Channel Frequency	5020.000MHz
TX Data Rate(SS)	SS BPSK 1/2 ~ SS 64QAM 5/6
TX Data Rate(DS)	SS BPSK 1/2 ~ DS 64QAM 5/6
Coverage Range	1 Km

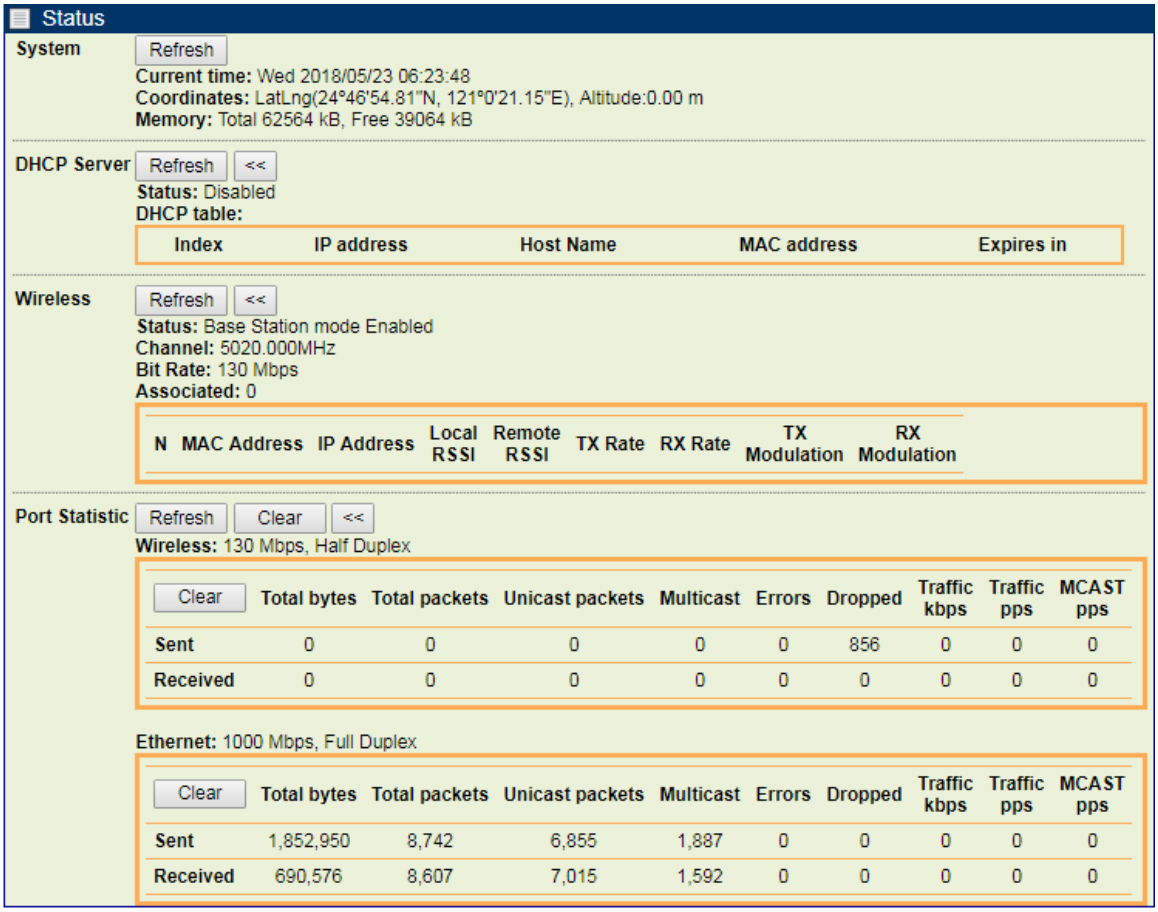
Wired Network

MAC Address	00:1c:24:12:34:57
Speed	1000.0 Mbps

Device Information

Status

Select Status, you will get the information as below,



Status

System

This field displays the current time, coordinates and memory information.

GPS

GPS Satellites Information (Only for GPS Model)

DHCP Server

Index: Number in order.

IP Address: Display client's IP address

Host Name: Display client's Host name

MAC Address: Display client's MAC address

Expires in: The duration of expiration.

Wireless

MAC Address: MAC of Remote MIMO WiLINX Bridge.

IP Address: IP of Remote MIMO WiLINX Bridge.

Local RSSI: RSSI of Local Bridge.

Remote RSSI: RSSI of Remote Bridge.

Tx/Rx Rate: Current Data Rate of Tx/Rx.

Tx/Rx Modulation: Current Modulation of Tx/Rx.

Port Statistic:

Display Wireless and Ethernet statistics of packets including transmitted and received packets, Unicast, Broadcast, Multicast and total Packets. Click "Refresh" can get instant information.

Notice: How to Setup MIMO WiLINX Super Bridge

Get Position, Longitude and Latitude

Get Direction and Azimuth

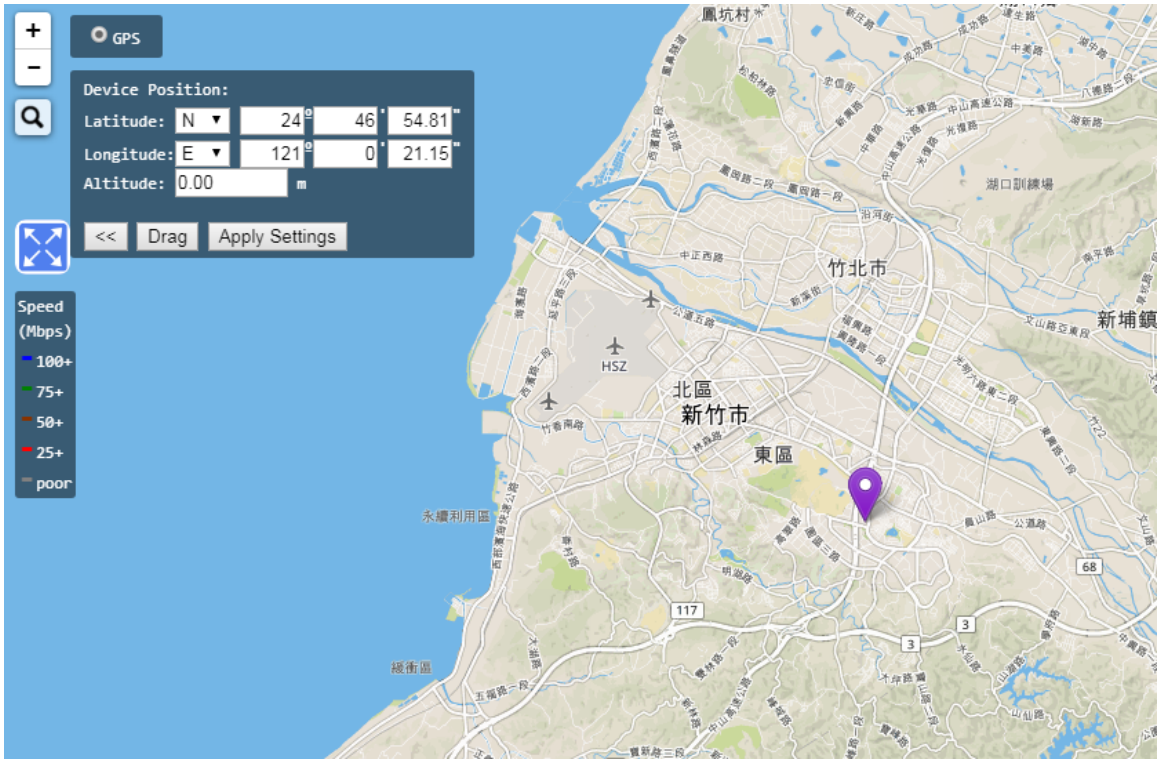
Signal Status, In Status page, it can show remote bridge Signal Strength for local bridge (Local RSSI) and local bridge Signal Strength for remote bridge (Remote RSSI). We can decide the best direction of antenna from following steps:

1. We check the Local RSSI only in one side. (We call it local side.)
2. Fix remote side antenna, and adjust local side antenna. In local side, check the "Local RSSI" first, to find a best Local RSSI and then fix the local antenna.
3. Adjust the Remote antenna, to find the Best Remote RSSI, and then fix the remote antenna.
4. If "Local RSSI" is changed, and worse than before, adjust local antenna again to get a best one and fix local antenna.
5. If "Remote RSSI" is changed and worse, adjust remote antenna again.
6. Follow the same ways to get a better Local RSSI and Remote RSSI value. And Fix both side antennas

MAP

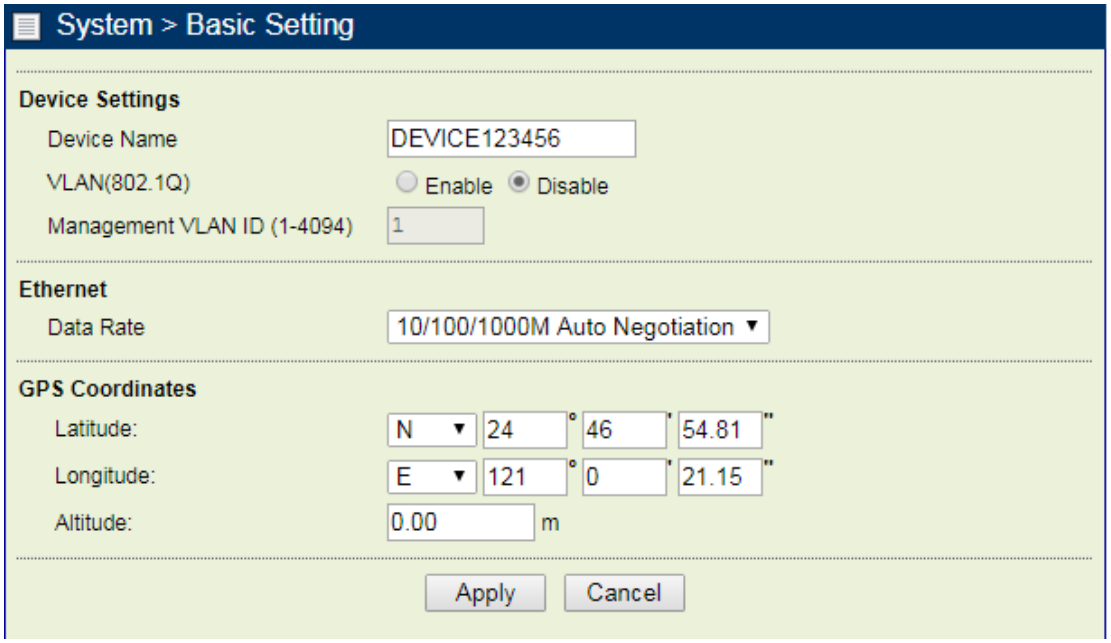
Global Positioning System, GPS (Only for GPS Model)

Select GPS, it can obtain current position from GPS receiver.



TOUCH AND CONNECT!™
WNet Green Network™

System



Basic Settings

Device Name

Specify the device name, which is composed of no more than 15 characters with (0-9), (A-Z), (a-z) or (-).

Due to support WINS, You can use “Device Name” instead of IP address to access device via WEB interface. For instance, device named as DEVICE0000FF, you can enter “DEVICE0000FF” in the IE, then click “ENTER” and WEB page; or use “ping” command to check settings is active or not, such as ping DEVEICE0000FF.

VLAN

Virtual local network can promote network security. By default, the function is disabled.

Management VLAN ID

To be able to access the web page of the managed Base Station in the VLAN network, you have to assign the VLAN management ID for the managed Base Station. Note that the ID on the switch must be identical of the Base Station’s VLAN ID. Check Enable VLAN(802.1Q) checkbox to activate it.

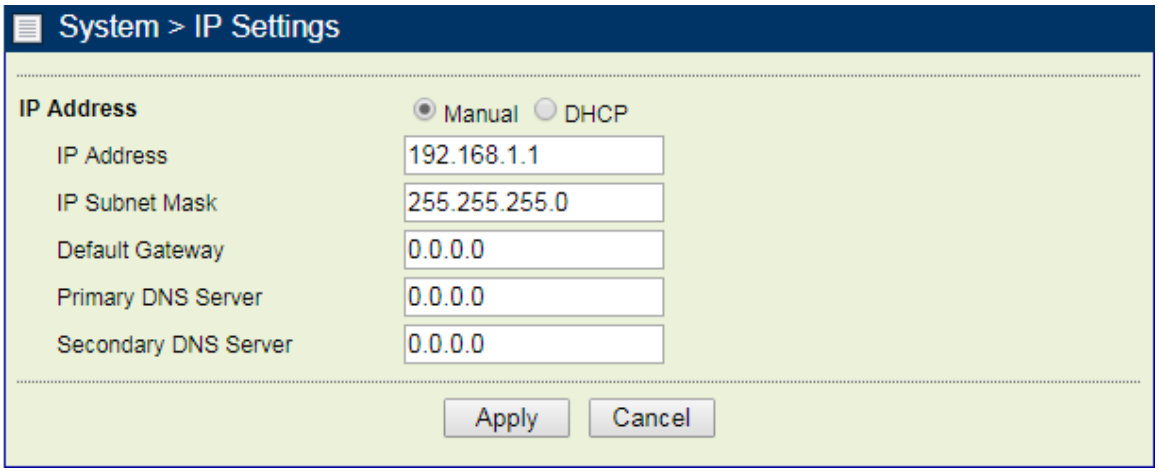
Ethernet Data Rate

Specify the transmission rate of data, default is Automatic.

Auto Negotiation / T-Base10Mbps / T-Base100Mbps / T-Base1000Mbps

GPS Coordinates (Only for GPS Model)

Obtain current position from GPS receiver.



IP Settings

IP Address

This IP in your network must be unique, default is 192.168.1.1.

IP Subnet Mask

Use subnet mask to ensure two devices in the same network, default is 255.255.255.0

Default Gateway

Default gateway and DNS server for your local area network which connects to LAN port.

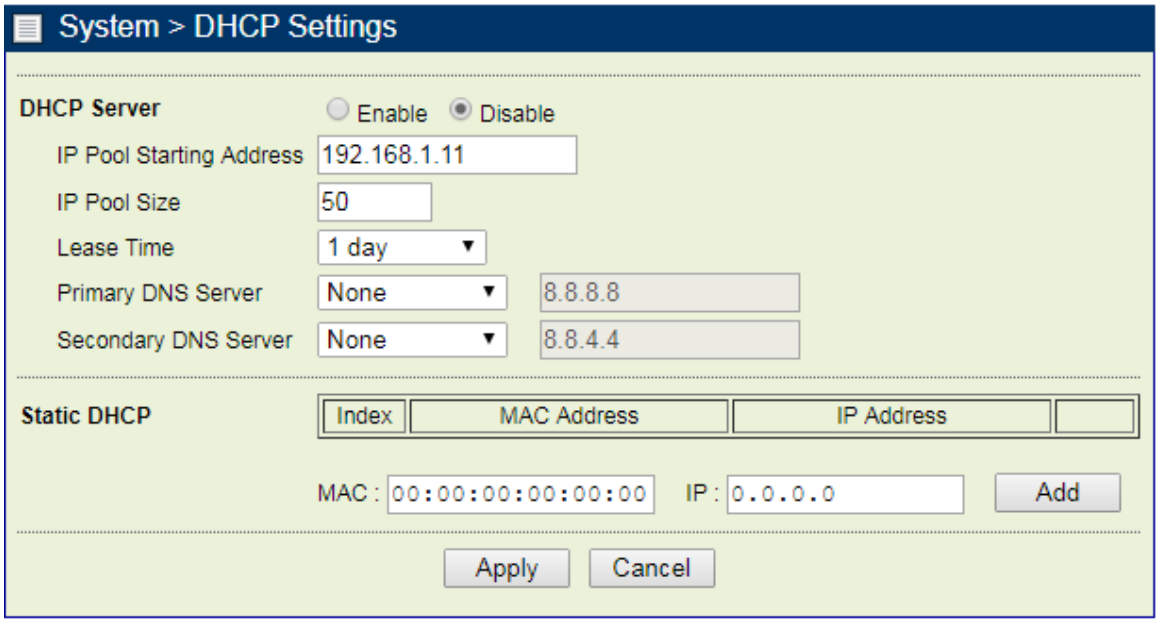
Primary DNS Sever

The DNS (Domain Name System) translates host names and internet domains to IP addresses. There are two basic kinds of DNS: Primary and Secondary DNS. They are DNS server computers where the domain name is saved. The information is identical on both DNS servers.

Secondary DNS Sever

The secondary DNS acts as backup for the Primary DNS in case the Primary DNS does not work.

DHCP Settings



DHCP Settings

DHCP Server

DHCP (Dynamic Host Configuration Protocol, RFC 2131 and RFC 2132) allows individual clients to obtain TCP/IP configuration at startup from a server. When configured as a server, the device provides TCP/IP configuration for the clients. If not, DHCP service is disabled and you must have another DHCP sever on your LAN, or else the device must be manually configured. Press **Enable** button to enable it, default is **Disable**.

IP Pool Starting Address

This field specifies the first of the contiguous addresses in the IP address pool. The default is 192.168.1.11.

IP Pool Size

This field specifies the size, or count, of the IP address pool. The default is 50

Lease Time

DHCP server leases an address to a new device for a period of time, when the lease expires, the DHCP server might assign the IP address to a different device. The default is 1day

Primary DNS Sever

The DNS (Domain Name System) translates host names and internet domains to IP addresses. There are two basic kinds of DNS: Primary and Secondary DNS. They are DNS server computers where the domain name is saved. The information is identical on both DNS servers.

Secondary DNS Sever

The secondary DNS acts as backup for the Primary DNS in case the Primary DNS does not work.

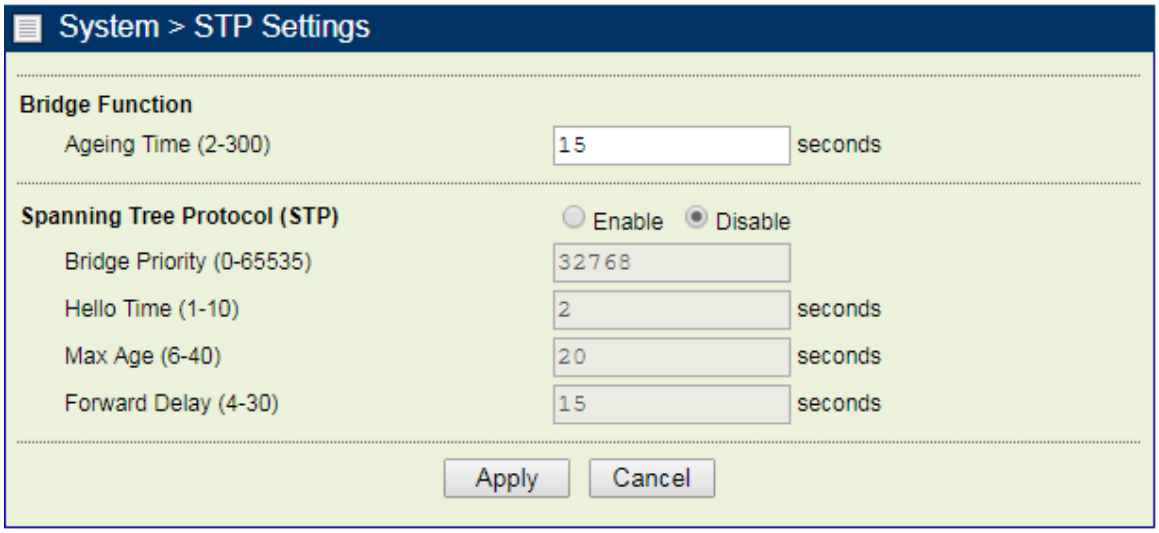
Static DHCP

The Static DHCP server assigns this static IP to a unique MAC address assigned to each NIC on your LAN. The clients request its IP from the specified DHCP server. (Note, currently, each reserved IP address must also be unique. Therefore, one cannot reserve the same IP address for both the wired and wireless interfaces of a device, even though the device may be configured such that only one interface is active at any given time.)

STP Settings

Enabling spanning tree can prevent undesirable loops in the network, ensuring a smooth-running network.

By default, the function is disabled.



STP Settings

Bridge Function

Ageing Time: The duration of a host's information will be kept in the bridge database. The default is 15s.

Spanning Tree Protocol (STP)

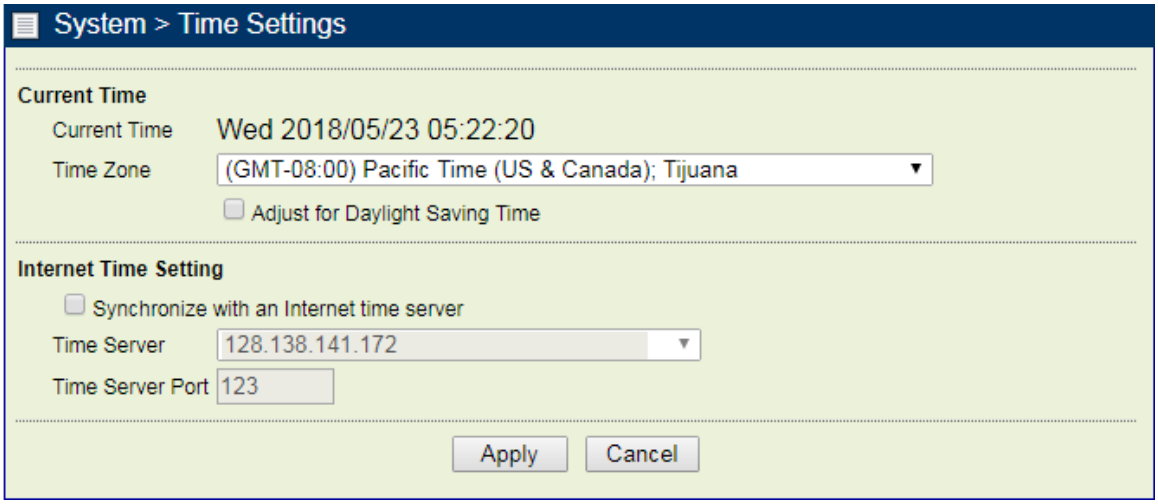
Bridge priority : A parameter used to identify the root bridge in a spanning tree (instance of STP). The bridge with the lowest value has the highest priority and is the root. A higher numerical value means a lower priority; thus, the highest priority is 0. It can be set from 0 to 65535.

Hello Time : The interval of time between each configuration BPDU sent by the root bridge. It can be set from 0 to 10.

Max Age : The interval a bridge will wait for a hello packet from the root bridge before initiating a topology change. It can be set from 6 to 40.

Forward Delay : The period of time a bridge will wait (the listen and learn period) before beginning to forward data packets. It can be set from 4 to 30.

Time Settings



Time Settings

Current Time

This field identifies the current time in your specific time zone.

Time Zone

Select the time zone location for your setting.

GPS Time Setting (Only for GPS Model)

Synchronize time with GPS

Internet Time Setting

Synchronize time with an Internet Time Server

Time Server Port

This field identifies the time server port like 123.

Chapter 4 Wireless Settings

Radio Settings

MAC Address

Display the MAC Address of device

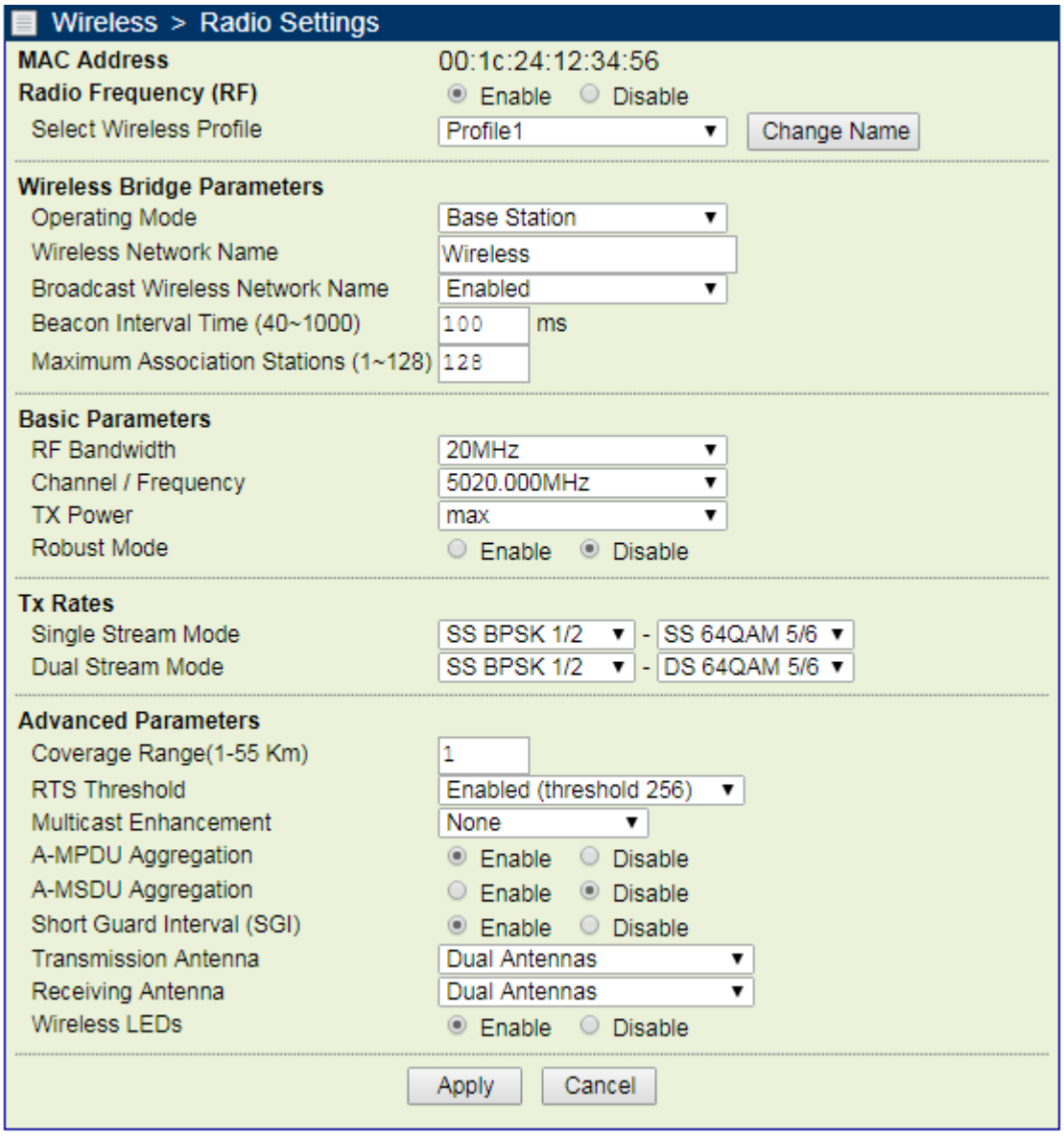
Radio Frequency (RF)

RF-Wireless, default is enabled.

Wireless Bridge Parameters

Operating Mode – Base Station

The Base Station is able to be connected to the CPE with the Wireless Network Name.



Base Station Mode

Wireless Network Name

This wireless network name is shared among all associated devices in your wireless network. Keep it identical on all those devices. Note that the wireless network name is case-sensitive and can't exceed 32 characters.

Broadcast Wireless Network Name

Enabled to broadcast wireless network name, disable to disabled it.

The Wireless Network Name broadcasting is used in the first place is to make it easy for CPE to see and connect to the network. Otherwise, they have to know the name beforehand and set up a manual connection to it. However, with the Wireless Network Name enabled, not only do your neighbors see your network any time they browse for nearby wireless, it makes it easier for potential hackers to see that you have a wireless network within range.

Beacon Interval Time (40~1000)

Specify the frequency interval to broadcast packets. Default is 100ms.

Maximum Association Stations (1~128)

The max. number of association stations that can be connected to the KW50-O9500 R1. Default is 128.

Basic Parameters

RF Bandwidth

Decide bandwidth of Radio Frequency. Including 5 / 10 / 15 / 20 / 30 / 40 / 52 MHz, default is 20MHz.

Channel / Frequency

Using different frequency

TX Power

Setting power of TX, default is max.

Robust Mode

It helps the wireless stability when working on the complicated wireless environment. The default is disable

Advanced Parameters

Coverage Range: Specifying distance of the two nodes. However, the performance is concerned on Channel Bandwidth and the distance, default is 1Km

52MHz, 1-20Km

40MHz, 1-25Km

30MHz, 1-37Km

20MHz, 1-55Km

15MHz, 1-75Km

10MHz, 1-110Km

05MHz, 1-230Km

RTS Threshold

The device sends RTS (Request to Send) frames to certain receiving station and negotiates the sending of a data frame. After receiving an RTS, that STA responds with a CTS (Clear to Send) frame to acknowledge the right to start transmission. The setting range is 0 to 2346 in byte. Setting it too low may result in poor network performance. Leave it at its default of 2346 is recommended.

A-MPDU Aggregation/ A-MSDU Aggregation

The data rate of your AP except wireless client mode could be enhanced greatly with this option enabled; however, if your wireless clients don't support A-MPDU/A-MSDU aggregation, it is not recommended to enable it.

Short Guard Interval

Under 802.11n mode, enable it to obtain better data rate if there is no negative compatibility issue.

Transmission Antenna / Receiving Antenna

There are 3 options which are includes dual antennas, single primary antenna and single secondary antenna.

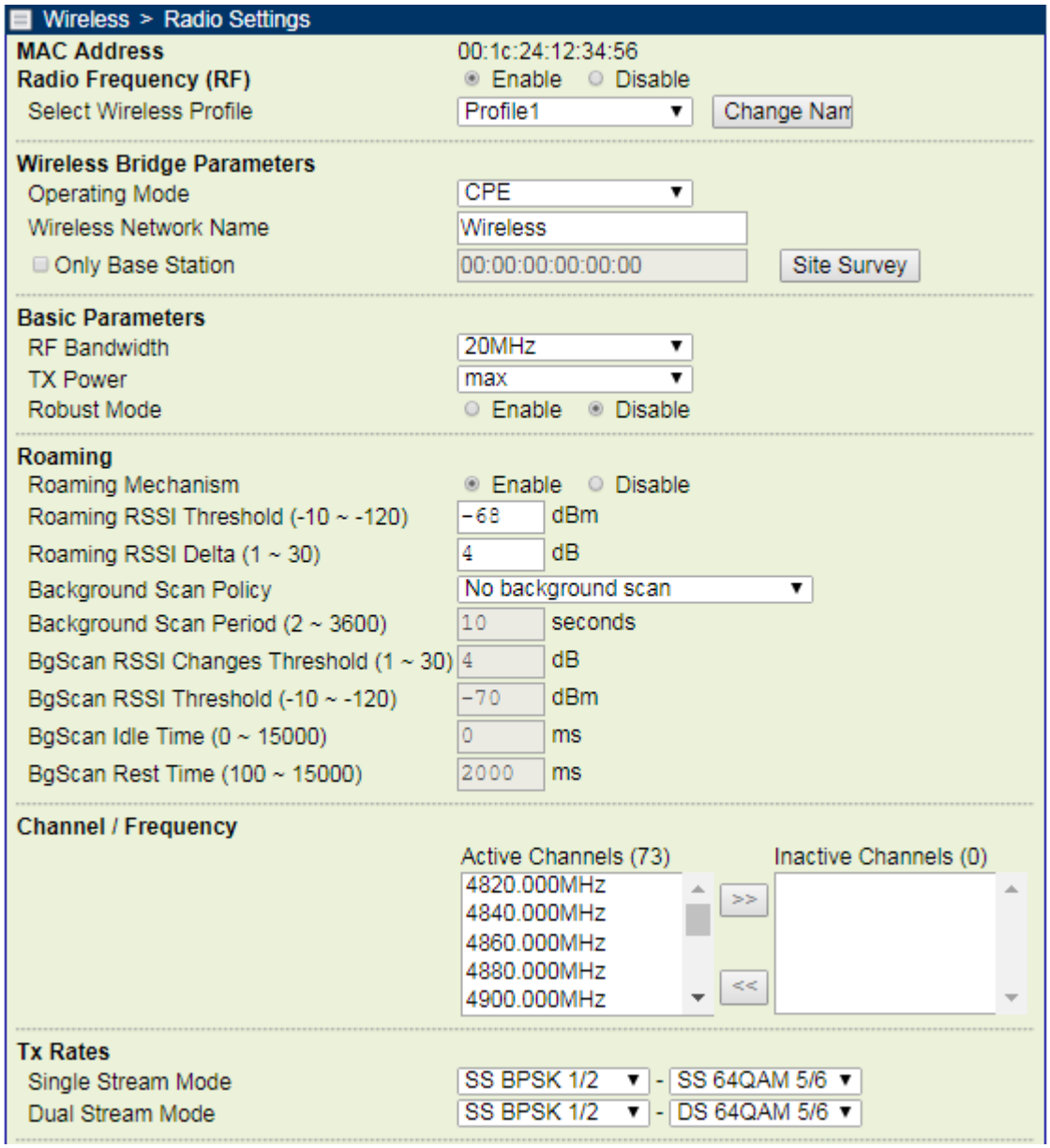
Wireless LEDs

Enable to activate LED display, the default is enabled.

Wireless Bridge Parameters

Operating Mode – CPE

The CPE is able to connect to the Base Station with the Wireless Network Name.



CPE Mode

Wireless Network Name

This wireless network name is shared among all associated devices in your wireless network. Keep it identical on all those devices. Note that Wireless Network Name is case-sensitive and can't exceed 32 characters.

Only Base Station

Allow to connect to the specified Base Station with MAC address.

Basic Parameters

RF Bandwidth

Decide bandwidth of Radio Frequency. Including 5 / 10 / 20 / 40 MHz, default is 20MHz.

Channel / Frequency

Operating at different frequency. The range is from 4820MHz to 6260MHz.

TX Power

Setting the transmitting power, default is max.

Robust Mode

It helps the wireless stability when working on the complicated wireless environment. The default is disabled.

Roaming

Roaming Mechanism

Select Enable to enabled the roaming mechanism.

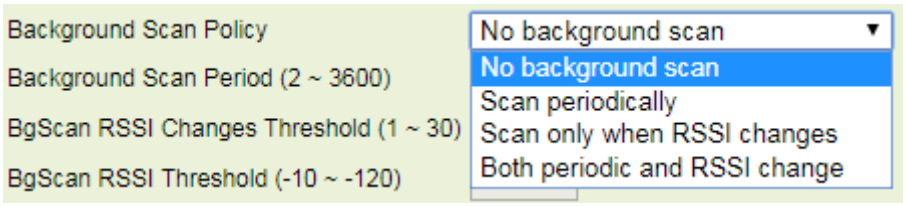
Roaming RSSI Threshold

If the RSSI measurement of the site, which the radio is on now, is above the specified Roaming RSSI Threshold, then the radio will remain on that site and not roam. Once the RSSI measurement drops below this threshold, the radio will begin a Passive Site Search process to find a site with higher signal strength

Roaming RSSI Delta

Roaming delta indicates the signal strength (RSSI) level (in dBm) that the radio looks for in a different access point (after the roam trigger is met) before it attempts to roam to the new Base Station.

Background Scan Policy



No background scan: Stop background scan function.

Scan periodically: Do scan function periodically.

Scan only when RSSI change: When RSSI change to the set value, do scan function.

Both periodic and RSSI change: Do scan when in both periodic and RSSI change to set value.

Background Scan Period

Set the period of time to execute background scan.

BgScan RSSI Changes Threshold

Set the threshold variation of RSSI to execute BgScan.

BgScan RSSI Threshold

Set the threshold value of RSSI to execute BgScan. When the RSSI lower than the setting, it do BgScan.

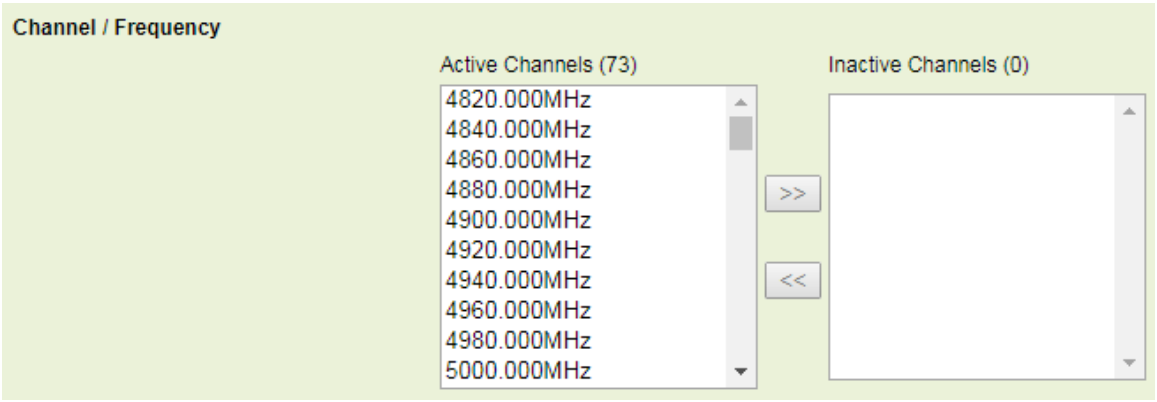
BgScan Idle Time

Set the idle time of BgScan.

BgScan Rest Time

Set the reset time of BgScan.

Channel / Frequency



Press “>>” button to add the inactive frequency in, “<<” button to remove it. Default is all valid. Reducing the number of valid frequencies can help CPE to do scan frequency efficiently to connect to Base Station quickly.

TX Rates

Normally choice transmission rate as “Best”, system will adapt best rate for real environment.

Including

Single Stream Model, SS 64QAM 5/6, SS 64QAM 3/4, SS 64QAM 2/3, SS 16QAM 3/4, SS 16QAM 1/2, SS QPSK 3/4, SS QPSK 1/2, SS BPSK 1/2

Dual Stream Model, DS 64QAM 5/6, DS 64QAM 3/4, DS 64QAM 2/3, DS 16QAM 3/4, DS 16QAM 1/2, DS QPSK 3/4, DS QPSK 1/2, DS BPSK 1/2

Advanced Parameters

Coverage Range: Specifying distance of the two nodes. However, the performance is concerned on Channel Bandwidth and the distance, default is 1Km

52MHz, 1-20Km

40MHz, 1-25Km

30MHz, 1-37Km

20MHz, 1-55Km

15MHz, 1-75Km

10MHz, 1-110Km

05MHz, 1-230Km

RTS Threshold

The device sends RTS (Request to Send) frames to certain receiving station and negotiates the sending of a data frame. After receiving an RTS, that STA responds with a CTS (Clear to Send) frame to acknowledge the right to start transmission. The setting range is 0 to 2346 in byte. Setting it too low may result in poor network performance. Leave it at its default of 2346 is recommended.

A-MPDU Aggregation/ A-MSDU Aggregation

The data rate of your AP except wireless client mode could be enhanced greatly with this option enabled; however, if your wireless clients don't support A-MPDU/A-MSDU aggregation, it is not recommended to enable it.

Short Guard Interval

Under 802.11n mode, enable it to obtain better data rate if there is no negative compatibility issue.

Transmission Antenna / Receiving Antenna

There are 3 options are dual antennas, single primary antenna and single secondary antenna.

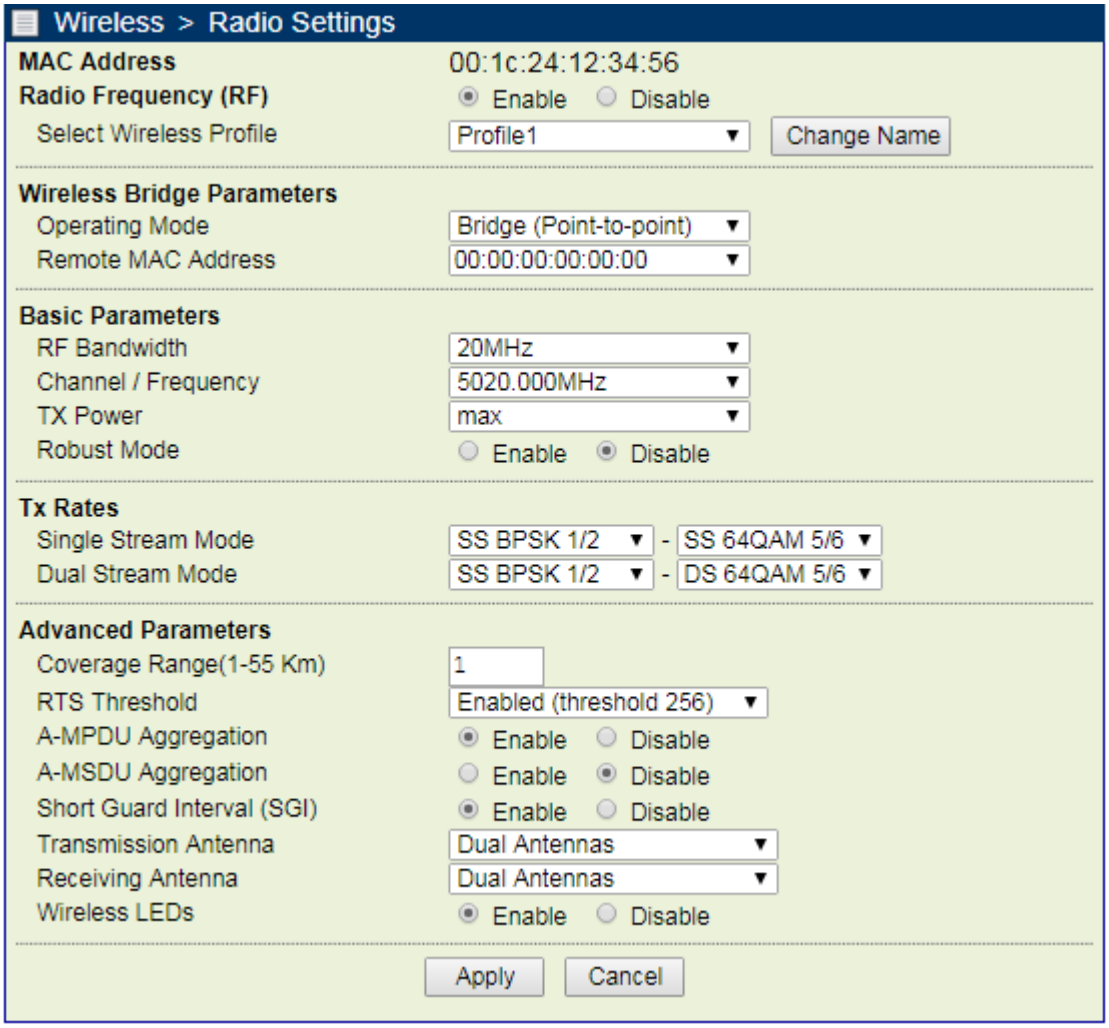
Wireless LEDs

Enable to activate LED display, the default is Enable.

Wireless Bridge Parameters

Operating Mode – Bridge (Point-to-point)

It adopts the WDS protocol to make the connection. The device establishes wireless connectivity with another by keying in remote MAC address.



Bridge (Point-to-point)

MAC Address

Display the MAC Address of device

Radio Frequency (RF)

Enabled RF-Wireless or disabled it, default is Enable.

Remote MAC Address

Input the MAC address of Remote Bridge.

Basic Parameters

RF Bandwidth

Decide bandwidth of Radio Frequency. Including 5 / 10 / 20 / 40 MHz, default is 20MHz.

Channel / Frequency

Operating at different frequency. The range is from 4820MHz to 6260MHz.

TX Power

Setting the transmitting power, default is max.

Robust Mode

It helps the wireless stability when working on the complicated wireless environment. The default is disable

TX Rates

Normally choice transmission rate as "Best", system will adapt best rate for real environment.

Including

Single Stream Model, SS 64QAM 5/6, SS 64QAM 3/4, SS 64QAM 2/3, SS 16QAM 3/4, SS 16QAM 1/2, SS QPSK 3/4, SS QPSK 1/2, SS BPSK 1/2

Dual Stream Model, DS 64QAM 5/6, DS 64QAM 3/4, DS 64QAM 2/3, DS 16QAM 3/4, DS 16QAM 1/2, DS QPSK 3/4, DS QPSK 1/2, DS BPSK 1/2

Advanced Parameters

Coverage Range: Specifying distance of the two nodes. However, the performance is concerned on Channel Bandwidth and the distance, default is 1Km

52MHz, 1-20Km

40MHz, 1-25Km

30MHz, 1-37Km

20MHz, 1-55Km

15MHz, 1-75Km

10MHz, 1-110Km

05MHz, 1-230Km

RTS Threshold

The device sends RTS (Request to Send) frames to certain receiving station and negotiates the sending of a data frame. After receiving an RTS, that STA responds with a CTS (Clear to Send) frame to acknowledge the right to start transmission. The setting range is 0 to 2346 in byte. Setting it too low may result in poor network performance. Leave it at its default of 2346 is recommended.

A-MPDU Aggregation/ A-MSDU Aggregation

The data rate of your AP except wireless client mode could be enhanced greatly with this option enabled; however, if your wireless clients don't support A-MPDU/A-MSDU aggregation, it is not recommended to enable it.

Short Guard Interval

Under 802.11n mode, enable it to obtain better data rate if there is no negative compatibility issue.

Transmission Antenna / Receiving Antenna

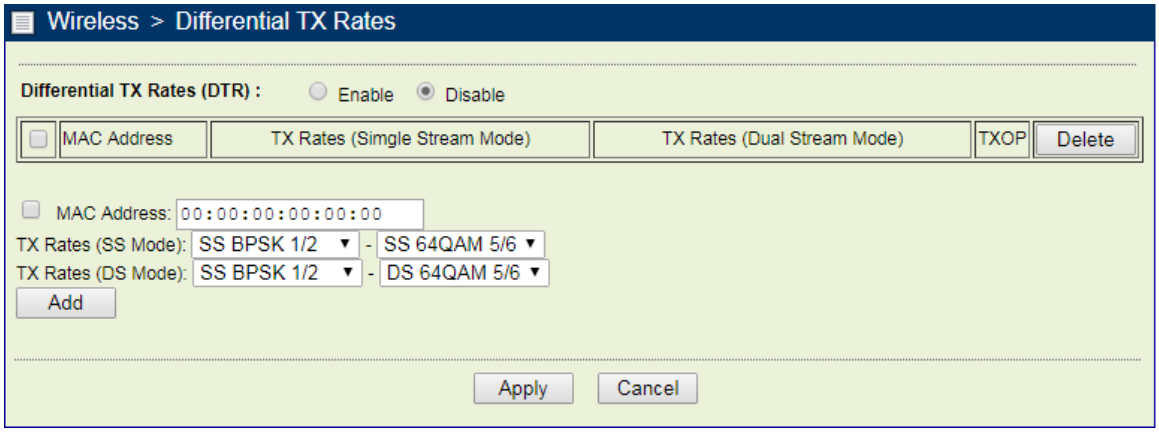
There are 3 options are dual antennas, single primary antenna and single secondary antenna.

Wireless LEDs

Enable to activate LED display, the default is Enable.

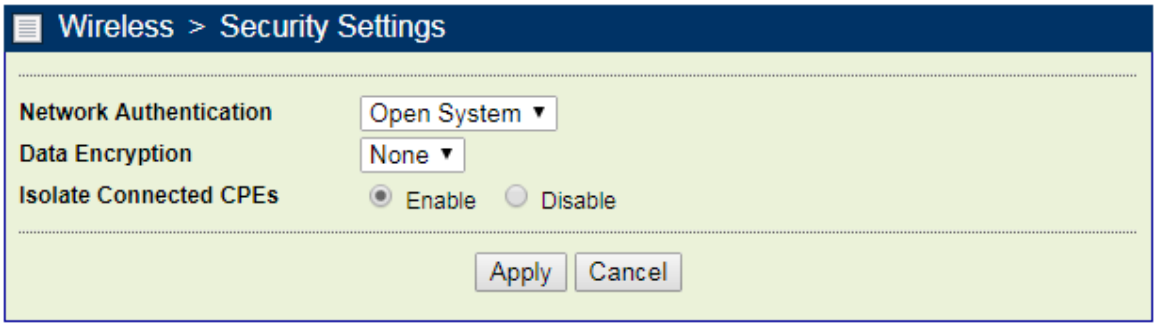
Differential TX Rates

Setup different TX modulation for different Clients.



Differential TX Rates

Security Settings



Security Settings

Network Authentication

There are Open System/ WPA PSK/ WPA2 PSK to set, default is Open System.

Open System

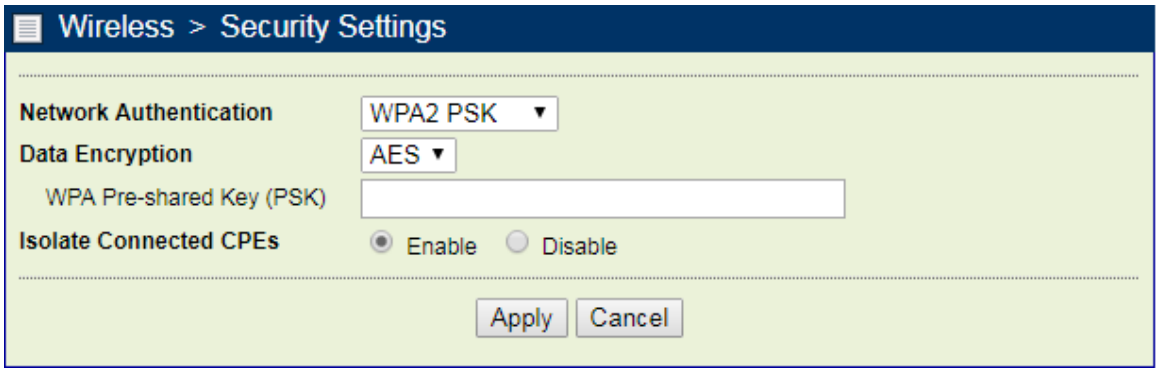
It allows any device to join the network without performing any security check.

WPA Pre-Shared Key(PSK): Wi-Fi Protected Access Pre-Shared Key (WPA-PSK) is a security mechanism used to authenticate and validate users on a wireless LAN (WLAN) or Wi-Fi connection. It is a variation of the WPA security protocol. The key should be 8-63 characters.

WPA2 PSK

As a new version of WPA, only all the clients support WPA2 PSK to be connected. Once selected, the data

encryption can only be AES and the Pre-shared key is required.



Data Encryption

None: When network authentication selected Open System and there is no data encryption.

TKIP: Temporal Key Integrity Protocol, which is a kind of dynamic encryption, is co-used with WPA-PSK

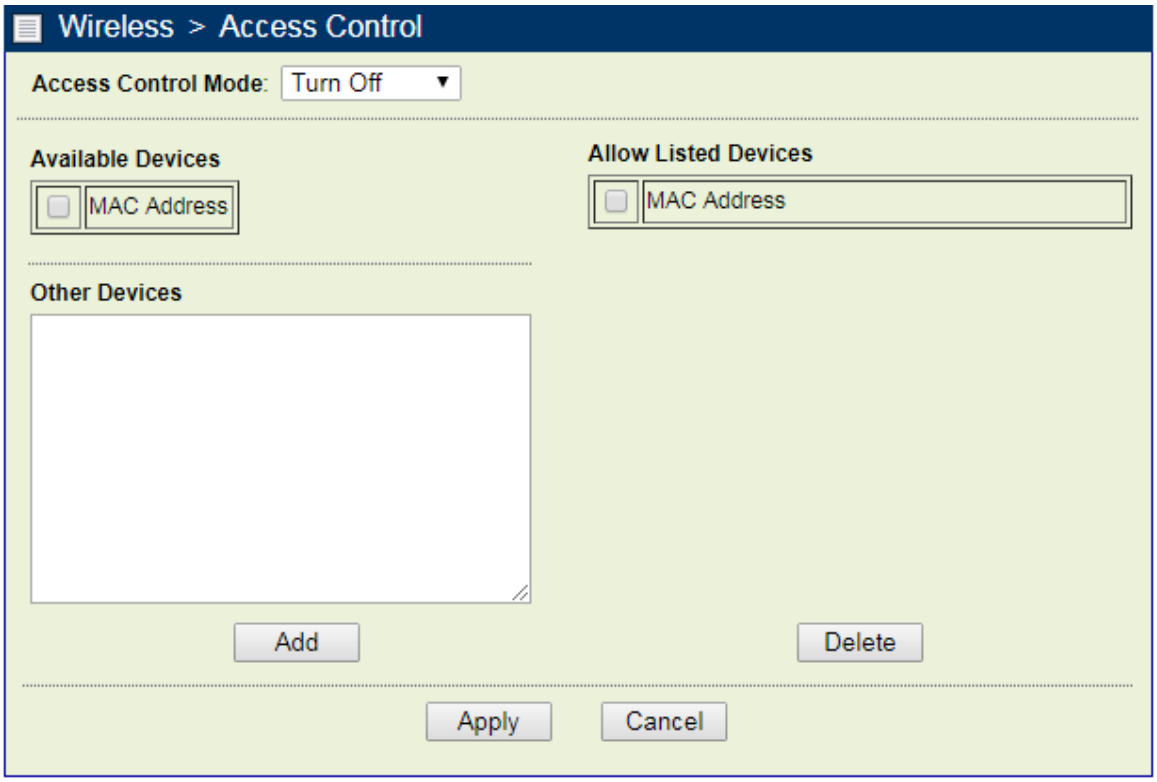
AES: Advanced Encryption Standard, it is usually co-used with WPA2-PSK

Isolate Connected CPEs

Enable to active “isolate connected CPEs”, or to disable it.

When disabled it, the CPEs could be connected and transmitted the packets each other. Default is enabled.

Access Control



Access Control

Access Control Mode

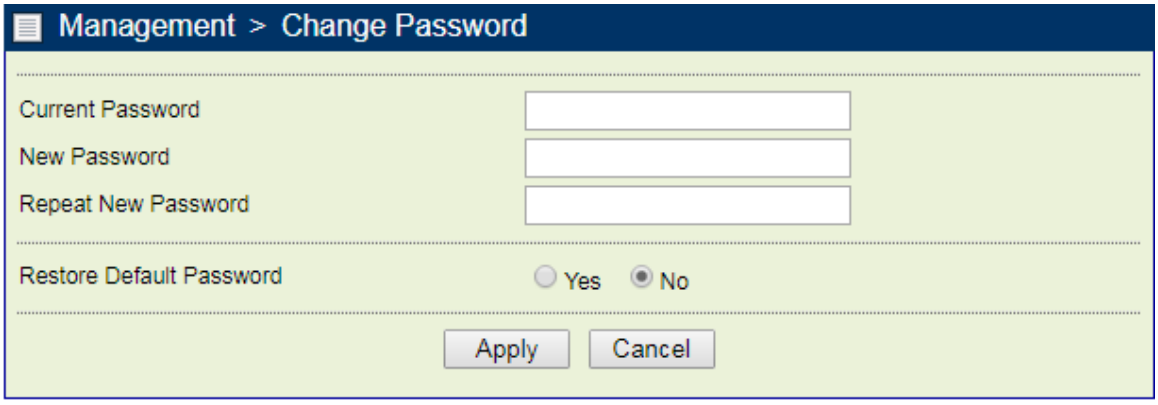
Turn off/Allow/Deny

Select “Allow”, the listing clients are allowed to access the base station. Other clients are blocked.

Select “Deny”, the listing clients are blocked to access the base station. Other clients are allowed.

Chapter 5 Management

Change Password



Change Password

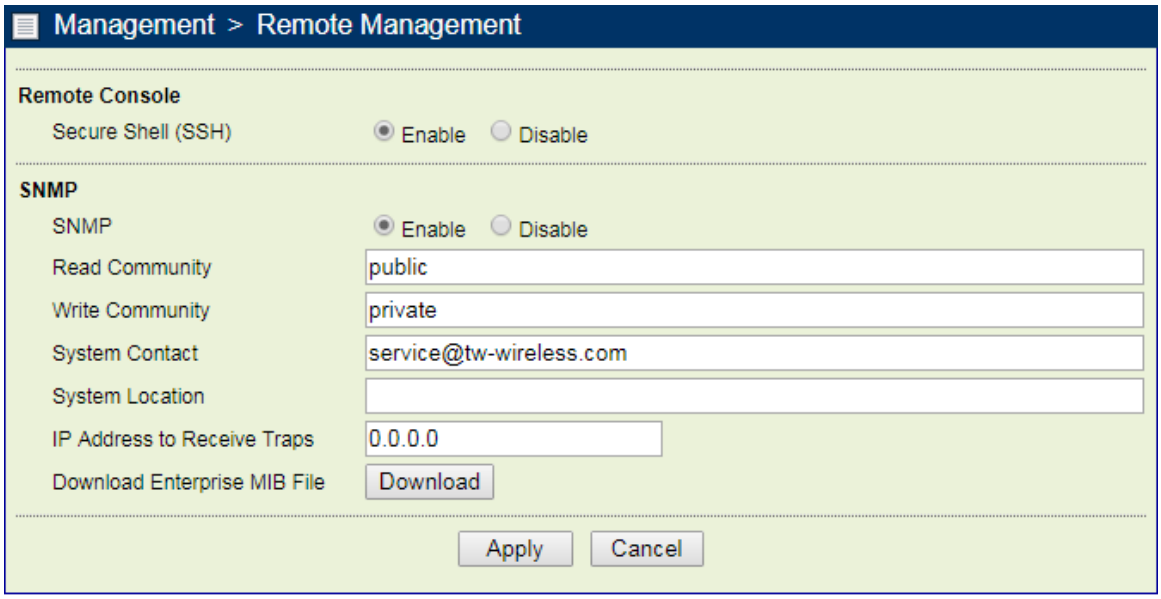
You can use the Change Password page to change the Bridge administrator's password for accessing the Settings pages. To change the password, Type the old password. The default password for the Bridge is: password. Type a new password and type it again in the Repeat New Password field to confirm it.

Click Apply to have the password changed or click Cancel to keep the current password.

Restore Default Password:

Click “Yes” to restore to default password. The default password is “password”.

Remote Management



Remote Management

Remote Console

Secure Shell (SSH)

This command is used to start the SSH client program that enables secure connection to the SSH server on a remote machine. The SSH command is used from logging into the remote machine, transferring files between the two machines, and for executing commands on the remote machine. The default is Enabled.

SNMP

SNMP

Simple Network Management Protocol (SNMP) is an Internet Standard protocol for collecting and organizing information about managed devices on IP networks and for modifying that information to change device behavior. SNMP is widely used in network management for network monitoring. SNMP exposes management data in the form of variables on the managed systems organized in a management information base(MIB) which describe the system status and configuration. These variables can then be remotely queried (and, in some circumstances, manipulated) by managing applications.

Read Community

Specify the password for the incoming Get and GetNext requests from the management station. By default, it is set to public and allows all requests.

Write Community

Specify the password for the incoming Set requests from the management station. By default, it is set to private.

System Contact

Set the system contact string. The default is service@tw-wireless.com

System Location

Set the system location string. The default is empty.

IP Address to Receive Traps

Specify the IP address of the station to send the SNMP traps to.

Download Enterprise MIB File

Click the Download button to download MIB File.

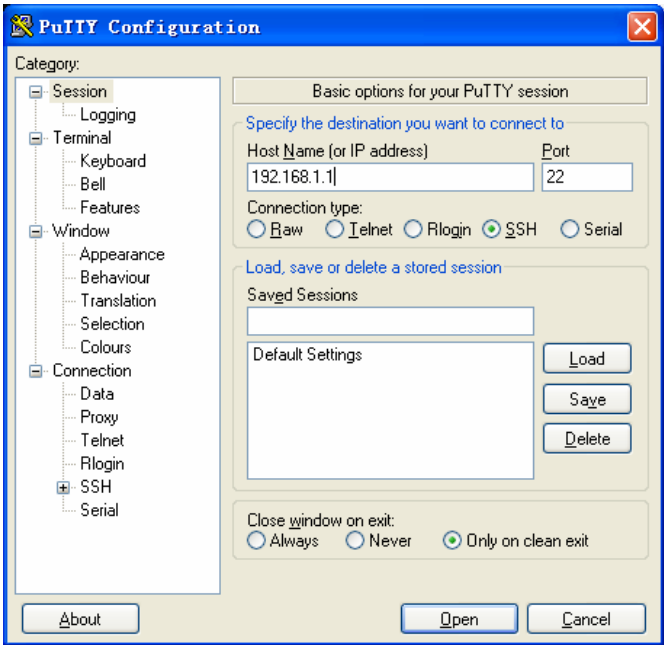
The KW50-O9500 R1 supports SNMP. If you use SNMP to control the bridge, firstly you should set SNMP settings.

And it supports CLI too , which could be accessed by Secure Shell (SSH). It is recommended PuTTY be used to login.

Once the program is downloaded, open up by double-clicking. Note that before using PuTTY, be sure you are able to connect to the MIMO WiLINX bridge.

1. Active Secure Shell(SSH). By SSH instruction setting the bridge.

- Double-clicking Putty.
- SSH. Enter IP Address of devices, check Protocol as SSH type



PuTTY Configuration

- From “Connection” in the lift menu bar, click “SSH”, select”2”as “Preferred SSH protocol version”, make “3DES” the top position in “Encryption cipher selection policy”.

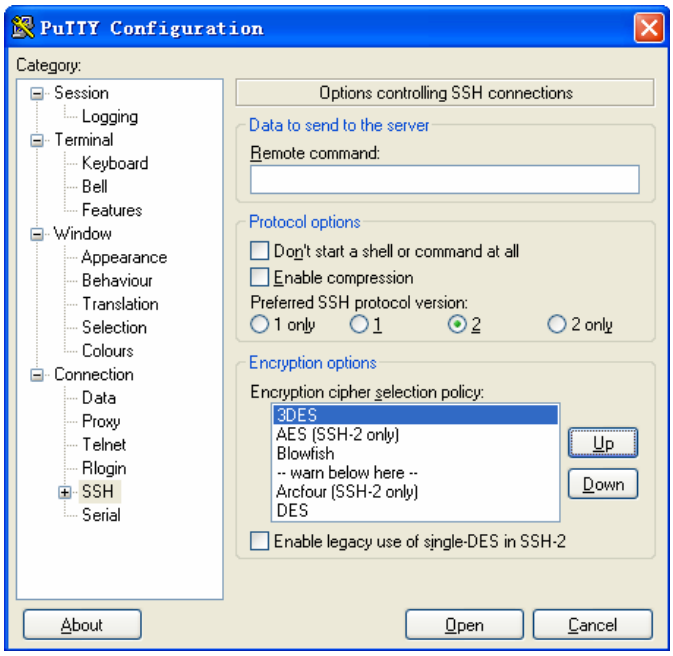
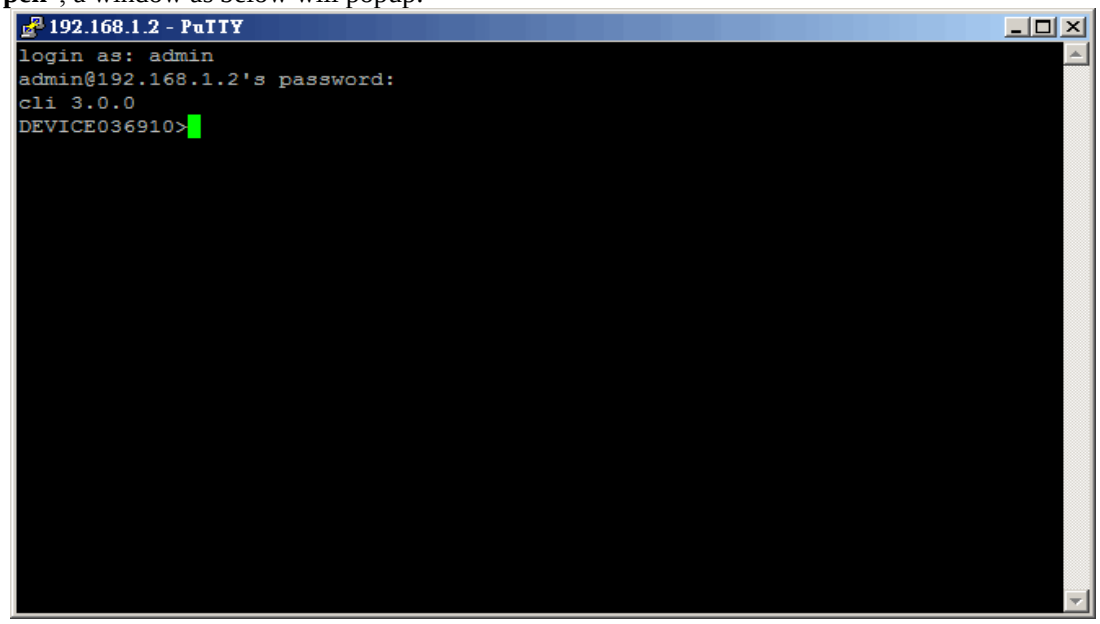


Figure 16 **PuTTY Configuration 2**

Click "**Open**", a window as below will popup:



SSH

2. Active SNMP, and control bridge by SNMP network system.

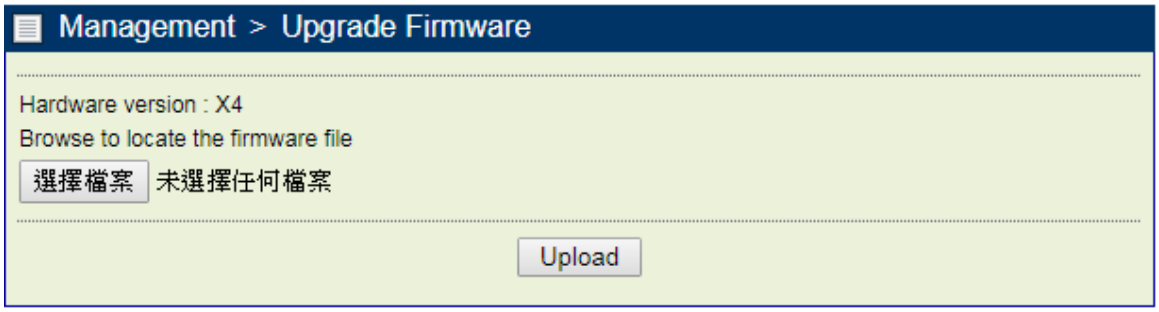
- Set Read Community password；Default is public
- Set Write Community password；Default is private
- Setting Trap Sever IP address

When the bridge is under abnormal condition, like bridge power failure or reset is usual.

Administrator can easy control device by exception log in Trap Server.

Upgrade Firmware

Via WEB interface to upgrade firmware：



Upgrade Firmware

1. Open Upgrade Firmware page
2. Click browser button and select the firmware file in local hard disk.
3. Click Upload button.
4. After upgrade, login again and check the software version.

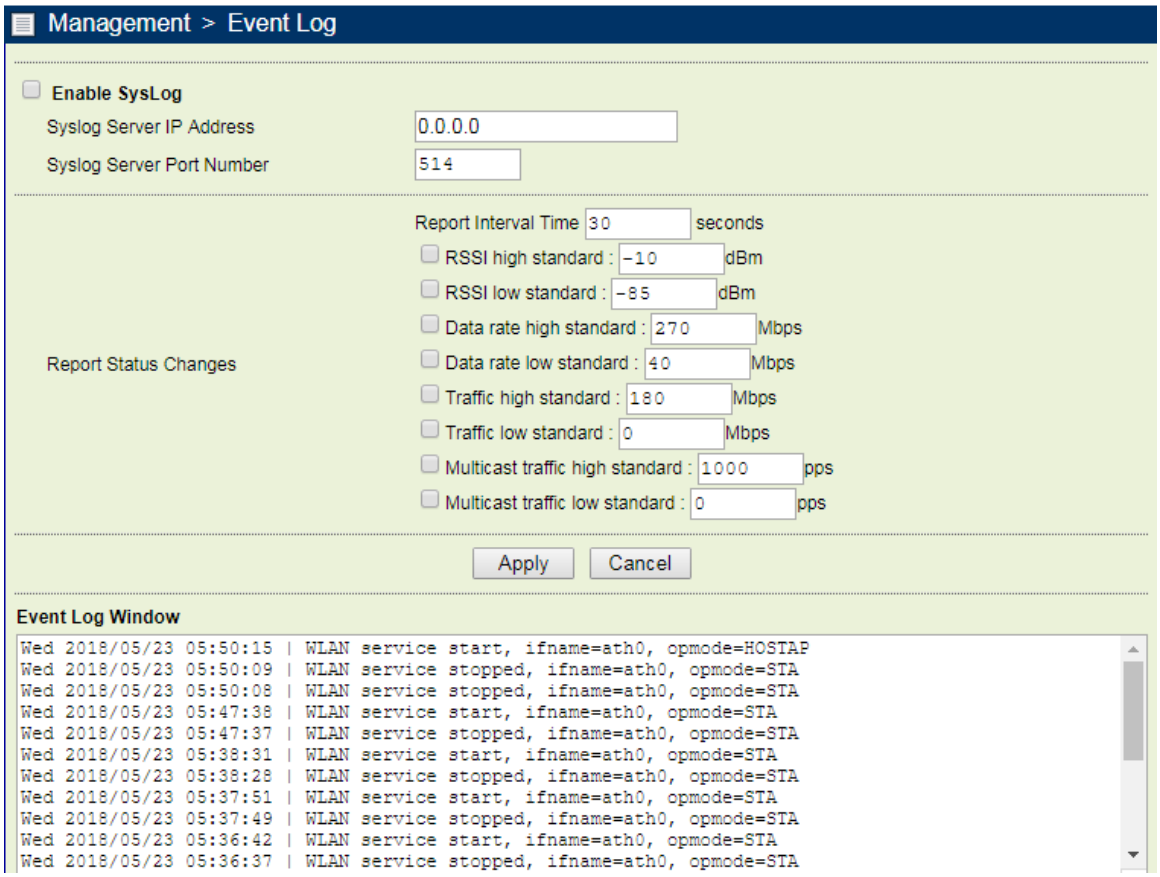
Backup/Restore

Backup / Restore

It would be better to backup settings of device after it work fine, so that you can recover settings quickly when something go wrong.

1. Open ”Backup/Restore” page, click “**Backup**”**,** it will pop up a dialog for input path and filename such as **F:\device.cfg**, and it will save “**device.cfg**” in the local disk after that.
2. Open “Backup/Restore” page, click “**Browser**”, It will pop up a dialog to choice what file you want to restore, such as “**F:\device.cfg**”, then click “**Retrieve**, the settings of the file will be restored back to device, and it will active for the device after auto reboot.
3. Open “Backup/Restore” page, click “**Restore**”, It will pop up a dialog to do Restore factory default settings. After applying it, the all settings reset to default.

Event Log



Event Log

Event log can show you the event of device, for example, connect, disconnect, reboot of Base station, or something change about settings. If you need long time observational notes, you can active Syslog. Enter Log Sever IP address, the port number configured in the SysLog server on your network. By default, it is 514

Syslog Server IP address

The Bridge will send all the SysLog to the specified IP address if SysLog option is enabled.

Default: 0.0.0.0

Syslog Server Port Number

The port number configured in the SysLog server on your network. By default, it is 514

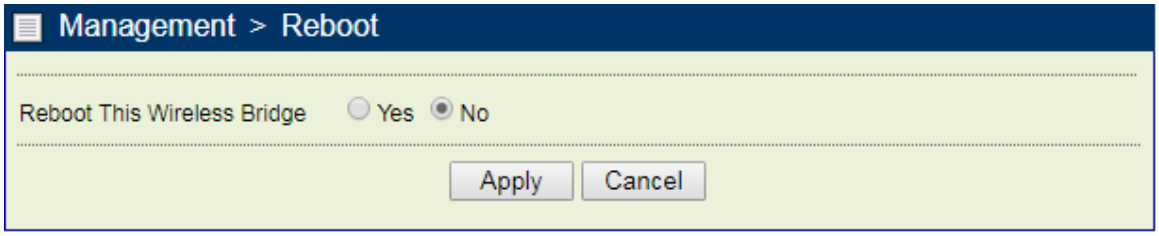
Event Log Window

It can display all logon sessions to a network, along with account lockouts, failed password attempts, etc. It can also record different types of application events, such as application errors, closures or other related events.

Through log records, it helps to understand the device working condition since startup.

Reboot

When you need to reboot the device, you can click the “yes” button and the click “Apply” it will reboot.



Reboot

Chapter 6 Troubleshooting

FAQ

Q1：How to know the MAC address of the Bridge?

1. The MAC address is written in a label which is in the bottom of Bridge.
2. From the General page of WEB configuration, you also can get the MAC address of the Bridge.

Q2：Why two Bridges can't build connection after setting?

1. Check "Operating Mode", one of bridges is Base Station, another one is CPE.
2. Check "Channel / Frequency" whether is same.
3. Check "Date Encryption" and "Key" whether is same.

Q3：How to adjust output power?

In the Wireless Settings page, you can do it.

Q4：The wireless becomes unstable such as ping timed out and lose pack after a period of well work?

This situation may the wireless network is disturbed by something, what you can so is following steps:

1. Check whether every joint point of network is well (such as Ethernet port, antenna connection.)
2. Change the channel if the Link Test value is not high, excluding other wireless equipment disturb the Bridge.
3. Restart the Bridge.
4. Default the Bridge and restore last settings.
5. Check the wireless port and Ethernet port environment and virus exist or not.
6. Please call the sales if can't solve problem after all.

Q5：Why can't open WEB page of remote wireless device in local network?

Because this kind of settings will slow the response of remote AP WEB Server, just waiting for several minutes or restarting remote wireless bridge is a way to solve problem. We suggest you set the Bridge in local wired Ethernet network.

Service Support

You can download the latest firmware version from web site if you need. If you have any questions, please contact us.

Website：http://www.tw-wireless.com/

Support：service@tw-wireless.com