

# Metadex® M-WA2413 AP Manual

V0.1

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# 1. DECLARATION OF CONFORMITY

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## 2. Export Controls

This device may contain commodities, technology or software subject to export laws and regulations from the US and other countries. Diversion contrary to law is prohibited.

### FCC/INDUSTRY CANADA NOTICE

Your device may cause TV or radio interference (for example, when using an AP in close proximity to receiving equipment). The FCC or Industry Canada can require you to stop using your AP if such interference cannot be eliminated. If you require assistance, contact your local service facility. This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by Nokia could void the user's authority to operate this equipment.

## 3. List of Items

Check the box which should contain the following components:

One AP

One user's manual

One Warranty Card

If you find any damage or shortage of any accessory, please contacts with local dealers.

Convention

the AP in this manual mentioned, if no special instructions, means Metadex's M-WA2413AP.

## 4. Purpose of the manual

The purpose of this manual is to guide you to install the MetaDex Wireless Access Point.

## 5. Product Overview

### 5.1. Introduction

The Wireless Access Point is specially designed for SOHO (Small office and home office) and hospitality market. It is very easy to install, operate and configure. It can be configured through its web configuration interface or from the central management server.

### 5.2. Features and Specification

Physical characteristics	
Power supply (IN)	POE powered <ul style="list-style-type: none"> <li>IEEE 802.3af compliant</li> <li>Pre-standard IEEE 802.3at supported</li> </ul>
Power supply (OUT)	PoE/PSE forwarding <ul style="list-style-type: none"> <li>IEEE 802.3af compliant, Class I &amp; II</li> </ul>
Size	113mm(length) 68mm(width) 44mm(height)
Weight	100 grams
Antenna	Integrated antenna Two 2.07-dBi Dielectric PIFA Antenna
Ethernet Port	3 ports, 10/100 Mbps, RJ-45 One port for Uplink/PoE, WAN Another two for LAN, including one PoE/PSE forwarding Support 802.1Q VLAN Support IGMP Snooping
LEDs	1 Power/Status(P), 1 Radio Status(R), 1 WAN Uplink/PoE(U), 2 LAN Ethernet Status(E), 1 PoE/PSE forwarding(S)
Connectors	Back panel: 8 pair punch down socket 1 Uplink/PoE RJ45 Port 1 pass-through RJ45 Port for Phone Edge : 1 Phone pass-through RJ45 Port 1 Ethernet/PoE_PSE RJ45 Port 1 Ethernet RJ45 Port
Operating temperature	0°C – +40°C
Non-operational temperature	-20°C – +80°C
Humidity	5% - 90%, non-condensing
Power consumption	6W

### Radio characteristics

Frequency	2.400 to 2.497 GHz
Modulation standard	IEEE 802.11b-compliant radio: Direct Sequence Spread Spectrum (DSSS) Complementary Code Keying (CCK) IEEE 802.11g-compliant radio: Orthogonal Frequency Division Multiplex (OFDM)
Subcarrier modulation	CCK (5.5 Mbps and 11 Mbps) BPSK (1 Mbps, 6 Mbps and 9 Mbps) QPSK (2 Mbps, 12 Mbps and 18 Mbps) 16-QAM (24 Mbps and 36 Mbps) 64-QAM (48 Mbps and 54 Mbps)
Data rates	IEEE 802.11b/g-compliant radio: 1, 2, 5.5 and 11 Mbps 6, 9, 12, 18, 24, 48, and 54 Mbps (Depending on the regulatory domain in which the access point/bridge is installed)
Non-overlapping channels	3
Channel support	China: 1-13 Europe: 1-13 America/Canada: 1-11 Japan: 1-14
Radio output power	Less than 20 dBm 802.11b Less than 20 dBm 802.11g (Depending on the regulatory domain in which the access point/bridge is installed)
No of Multi SSIDs	4
Authentication Types	WEP(Open system, shared key) WPA-PSK WPA-TKIP WPA2-AES
Router	DHCP client

Management	
Configuration	Web based configuration, SNMP statistics interface
Login	<ul style="list-style-type: none"> <li>centralized network management</li> <li>user management</li> </ul>
Statistics	LAN, Radio, associated clients status
Firmware Upgrade	TFTP automatic upgrade

## 6. Hardware Installation

### 6.1. Panel Description

Indicator as described below:



LED from left to right mean: LAN Ethernet Status 1, LAN Ethernet Status 2, PoE / PSE forwarding, WLAN Status; Power / Status, WAN Uplink / PoE. Provide “reset” button to resume to the factory default state in the event of an exception.

Lights	Status Description
P1: LAN Ethernet Status 1	Light flash: Internet port network connection to normal Light out: Internet port is not connected network, or anomaly
P2: LAN Ethernet Status 2	Light flash: Eth/PSE port network connection to normal Light out: Eth/PSE port is not connected network, or anomaly
PSE: PoE/PSE forwarding	Light bright: Eth/PSE port access POE equipment, and power is normal. Light out: Power is not normal, or access non-POE equipment
WLAN: WLAN Status	light flash: WIFI enabled Light out: WIFI disabled
Power: Power/Status	Lights Periodic flash: AP power is normal. Light out: AP power is anomaly
WAN: WAN Uplink/PoE	Light flash: the network that AP connect to switch is normal Light out: the network that AP connect to switch is abnormal


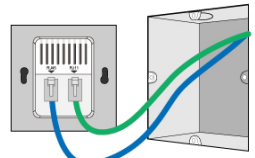
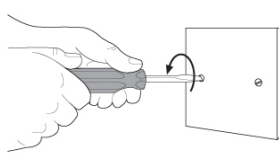
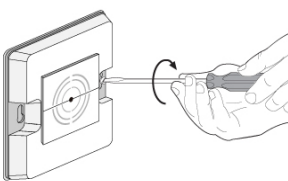
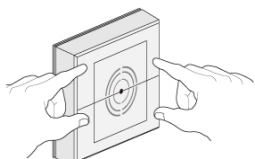
## 6.2. Installation Environment

Installation environment requirements:

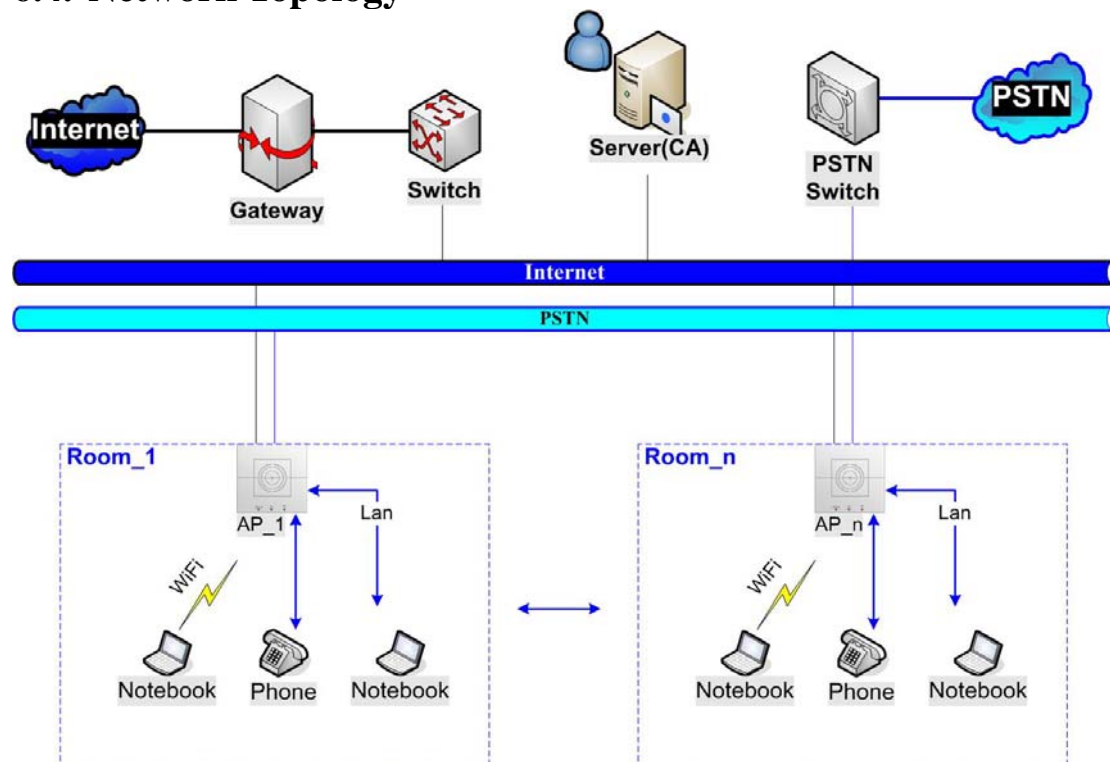
1. AP placement, please try to stay away from heating devices.
2. Do not put AP in dirty or wet areas.
3. Temperature: 0°C~40 °C
4. Humidity: 5% ~ 90% rh non-condensing

## 6.3. Hardware Installation Steps

Please follow these steps to install the AP. Remember to keep your hands dry during installation. The installation of this product is very easy, as shown in process:

<h3>Easy Installation -in 5 Steps!!!</h3>	
<p>1. Remove the AP front panel.</p> 	<p>3. Connect the network cable and telephone line to the respective port.</p> 
<p>2. Remove the existing faceplate from the wall box.</p> 	<p>4. Fix the AP into the wall box.</p> 
<p>5. Place the AP faceplate back on and tighten it.</p> 	

## 6.4. Network Topology



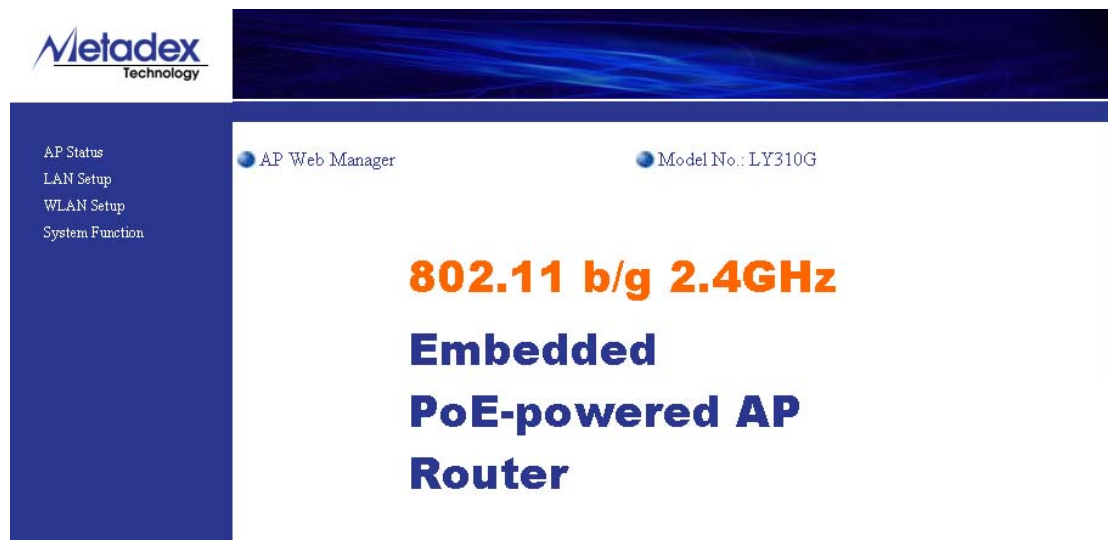
## 7. Configuration Guide

### 7.1. Startup and Login

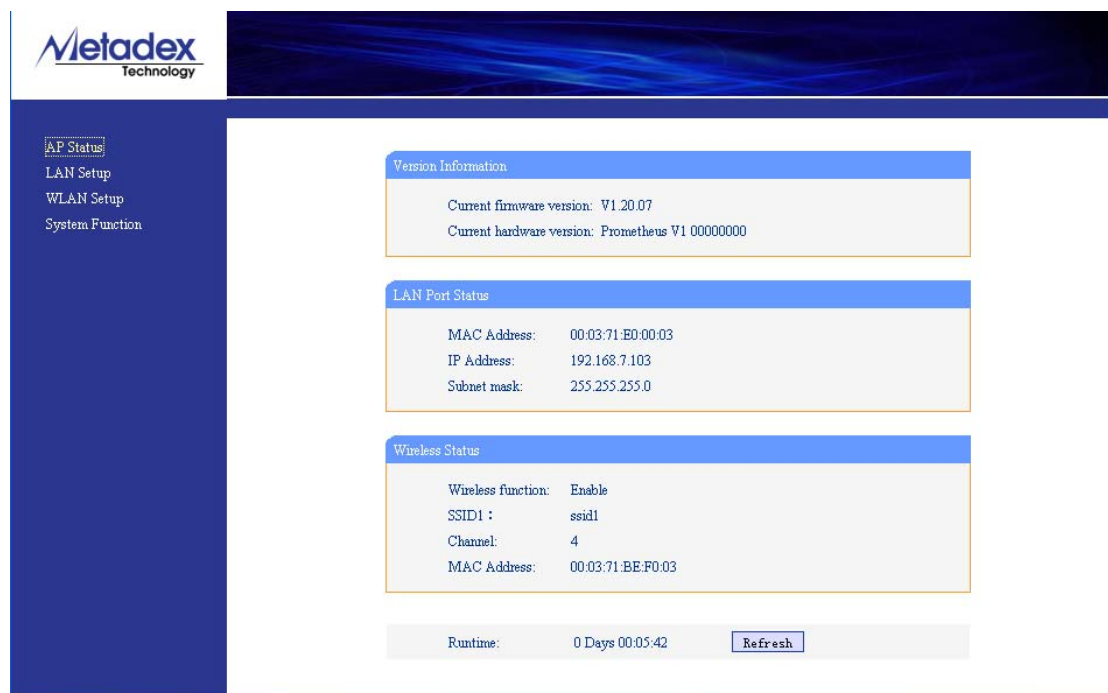
After the success of the startup and login, the browser displays the administrator mode AP configuration page. Detailed configuration instructions refer to the server using the instructions.

User Login	
Username:	<input type="text" value="admin"/>
Password:	<input type="password" value="•••••"/>
<input type="button" value="Login"/>	

In the left menu bar, there was "AP status", "LAN setup", "WLAN setup", "System function" menus. Click a menu item; you can make the appropriate feature set.



## 7.2. AP Status



The interface displays the current Version information: current firmware Version, current hardware Version; LAN Port status: MAC address, IP address, subnet mask; wireless status: wireless function, SSID, channel, Mac address. Can display the runtime, and to provide "Refresh" button to refresh the current status.



## 7.3. LAN Setup

### 7.3.1. Basic Setup

The screenshot shows the Metadex Technology web interface. On the left is a navigation menu with options: AP Status, LAN Setup, Basic Setup (highlighted), Lan VLAN, WLAN Setup, and System Function. The main content area is titled 'LAN Configuration' and contains the following fields:

MAC Address:	00:03:71:E0:00:03
IP Address:	<input type="text" value="192.168.7.103"/>
Subnet mask:	<input type="text" value="255.255.255.0"/>
Gateway:	<input type="text" value="192.168.5.1"/>

At the bottom of the configuration area is a 'Save' button.

#### MAC Address

Show MAC address of AP to the LAN, this value can't be set and changed.

#### IP Address

Please enter the LAN IP address of the AP. The factory default value for IP address is 192.168.7.1, you can set up according to your actual needs of the value.

#### Mask

Please enter the LAN subnet mask of the AP, usually its 255.255.255.0 in the LAN. All the computers must be the same as the subnet mask.

#### Gateway

Enter your gateway address

Here, if you change your LAN port IP address, you must use the new IP address to log AP management interface, and the default gateway under the LAN of the AP for all computers must also be set to the IP address, so you can properly connect to Internet. All the computers in the LAN subnet mask subnet mask must be the same as here.

### 7.3.2. LAN VLAN

The screenshot shows the Metadex Technology web interface. On the left is a navigation menu with options: AP Status, LAN Setup, Basic Setup, Lan VLAN (highlighted), WLAN Setup, and System Function. The main content area is titled 'Lan VLAN Configuration' and contains the following fields:

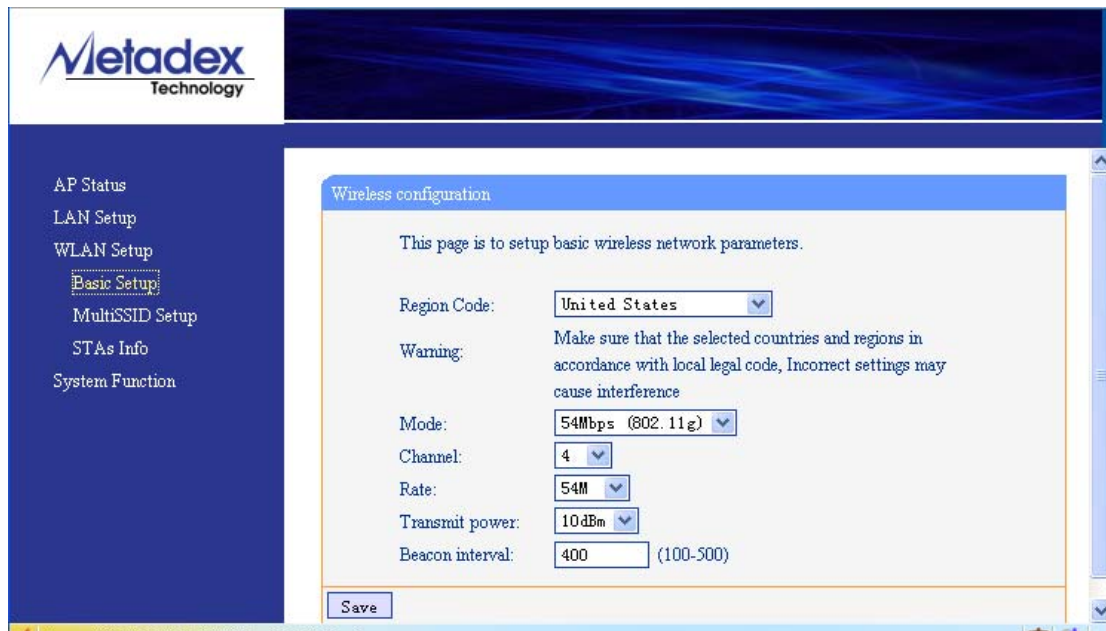
Lan1 VLAN:	<input type="text" value="4096"/>	(0-4095 4096=none)
Lan2 VLAN:	<input type="text" value="4096"/>	(0-4095 4096=none)

At the bottom of the configuration area is a 'Save' button.

Set the VLAN number (0~4096 4096=none) of the LAN1 and LAN2 in LAN VLAN configuration.

## 7.4. WLAN Setup

### 7.4.1. Basic Setup



This page is to setup basic wireless network parameters.

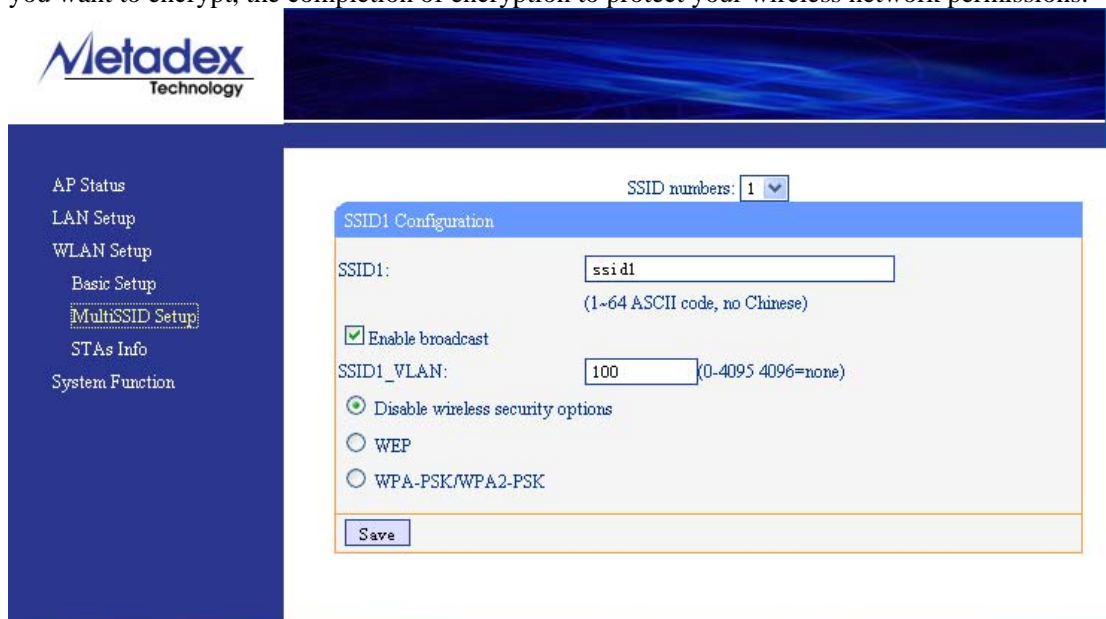
Wireless configuration:

Include: region code, mode, channel, rate, transmit power, beacon interval.

## 7.4.2. MultiSSID Setup


If SSID is 1:

Select encryption or no encryption. Please choose the encryption method and password format if you want to encrypt, the completion of encryption to protect your wireless network permissions.



If SSID number is 4:

Configured the same, you can select multiple SSID (supports 4 SSID setting)



SSID numbers: 4 ▼

**SSID1 Configuration**

SSID1: ssid1  
(1~64 ASCII code, no Chinese)

☒ Enable broadcast

SSID1\_VLAN: 100 (0-4095 4096=none)

☒ Disable wireless security options  
☐ WEP  
☐ WPA-PSK/WPA2-PSK

**SSID2 Configuration**

SSID2: Metadex2  
(1~64 ASCII code, no Chinese)

☒ Enable broadcast

SSID2\_VLAN: 0 (0-4095 4096=none)

☒ Disable wireless security options  
☐ WEP  
☐ WPA-PSK/WPA2-PSK

**SSID3 Configuration**

SSID3: Metadex3  
(1~64 ASCII code, no Chinese)

☒ Enable broadcast


SSID3\_VLAN: 0 (0-4095 4096=none)

☒ Disable wireless security options  
☐ WEP  
☐ WPA-PSK/WPA2-PSK

**SSID4 Configuration**

### 7.4.3. STAs Info

The MAC address of users associated with the SSID.



Refresh

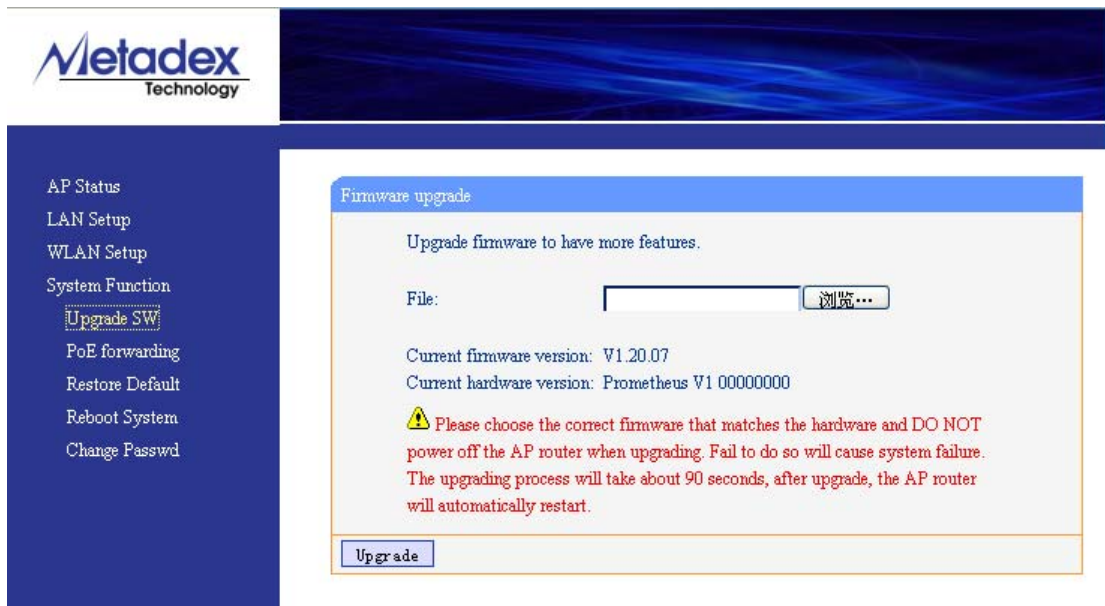
**SSID1: ssid1**

ID	MAC Address
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## 7.5. System Function

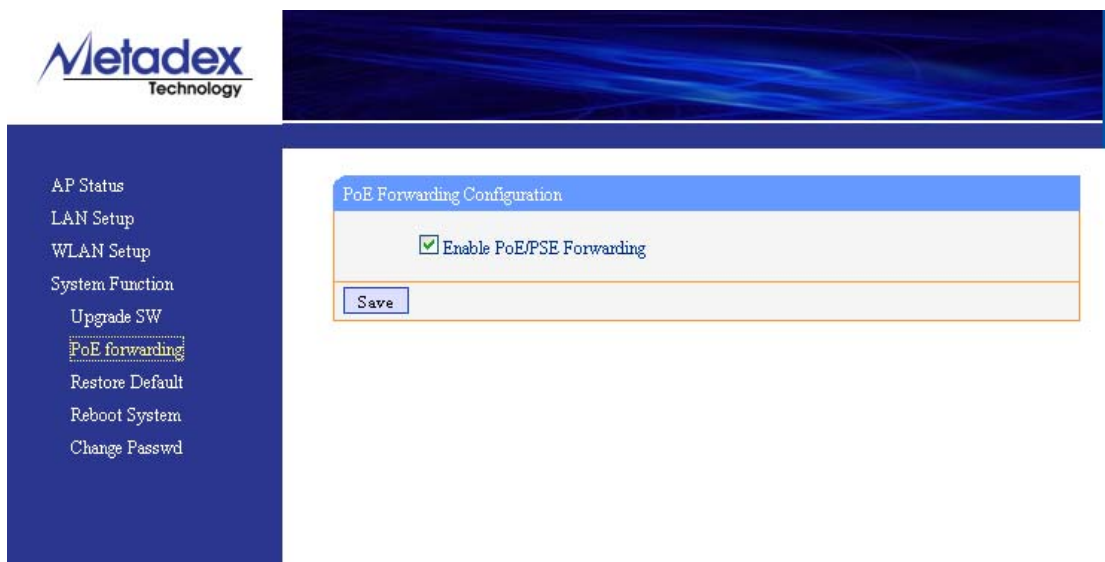
### 7.5.1. Upgrade SW

AP software upgrades. Choose the upgrade software in the location, click “upgrade” button to complete the upgrade.




### 7.5.2. PoE forwarding

Enable or disable PoE / PSE Forwarding, it can power an external PoE powered device.



### 7.5.3. Restore Default

Click the button to restore factory settings.



AP Status

LAN Setup

WLAN Setup

System Function

Upgrade SW

PoE forwarding

**Restore Default**

Reboot System

Change Passwd

### Factory reset

Click this button will set to factory default setting.

To restore the factory settings

## 7.5.4. Reboot System

Restart AP Router.

AP Status

LAN Setup

WLAN Setup

System Function

Upgrade SW

PoE forwarding

Restore Default

**Reboot System**

Change Passwd


### Restart AP router

Click this button will restart AP router.

Restart AP router

## 7.5.5. Change Password

Modify new User and Password



AP Status

LAN Setup

WLAN Setup

System Function

Upgrade SW

PoE forwarding

Restore Default

Reboot System

**Change Passwd**

### User management

This page is to modify system administrator user name and password.

Current user name:

Current password:

New user name:

New password:

Confirm new password:

Save Empty

Enter the current user name and password, and then enter the new user name and password, point "save" to create a new user.

## 8. ROHS



Toxic or hazardous substances and Elements	Part Name
	AP
Pb	X
Hg	O
Cd	O
Cr6+	O
PBB	O
PBDE	O

O: indicates that the toxic and harmful substances in the component content of all the homogeneous materials are in SJ / T 11363-2006 standard specifies the limited request.

X: The toxic and hazardous substances, at least in the parts of a mean content of the material beyond the SJ / T 11363-2006 standard specifies the limited demand.

Note: This product is marked with "X" reason: there is no alternative at this stage instead of technology or components.

## 9. FCC Warning

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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

FCC Radiation Exposure Statement The antennas used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.