

Advantech Equipment

AMC-5810 **Ethernet to Serial Converter**

Installation Guide



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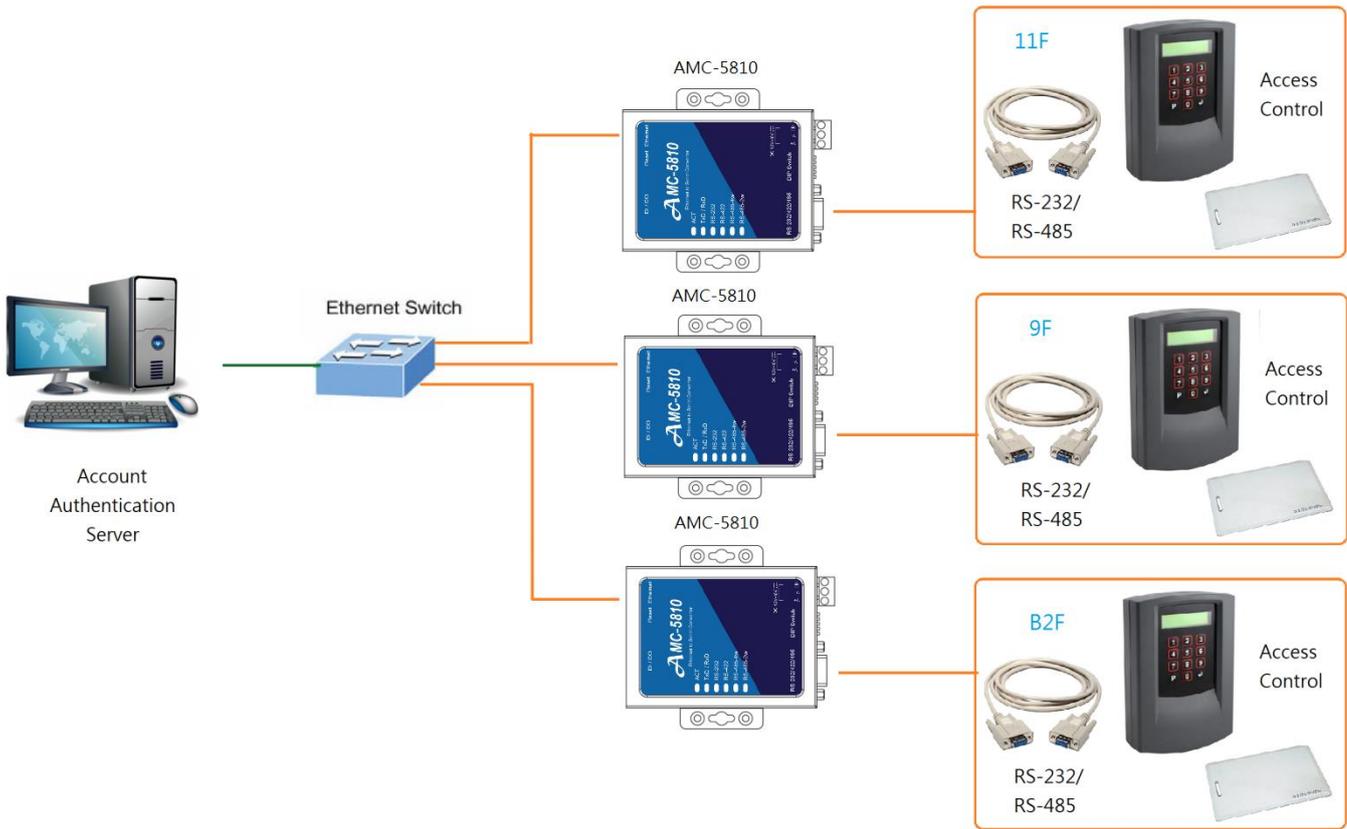
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CHAPTER 1 INTRODUCTION

The AMC-5810 is an Ethernet to serial RS-232/422/485 converter. The device provides Ethernet communication with 10/100Mbps, the serial interface RS-232/422/485 configuration with webpage management and the DIP switch for position terminator or biasing resistor on the RS-485/422 communication network, the digital input (DI) and digital output (DO) channels for logic control or event trigger.

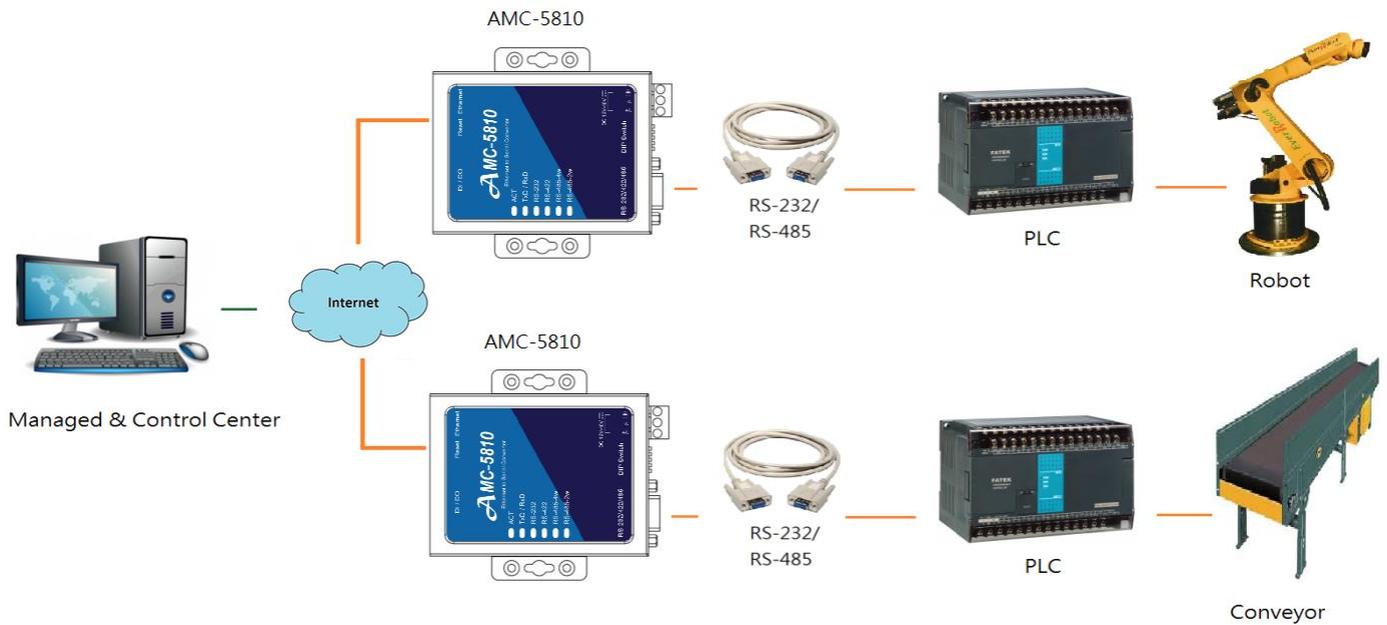
TYPICAL APPLICATIONS

Most of the enterprise and government use access control plate and Mifare or RFID to authorize the entrance identity. With traditional deploy, access control machine use RS-232 or RS-485 serial interface and cables connect to login server. With connection to AMC-5810 Ethernet to Serial Converter, the access control can be set and monitored over the internet.

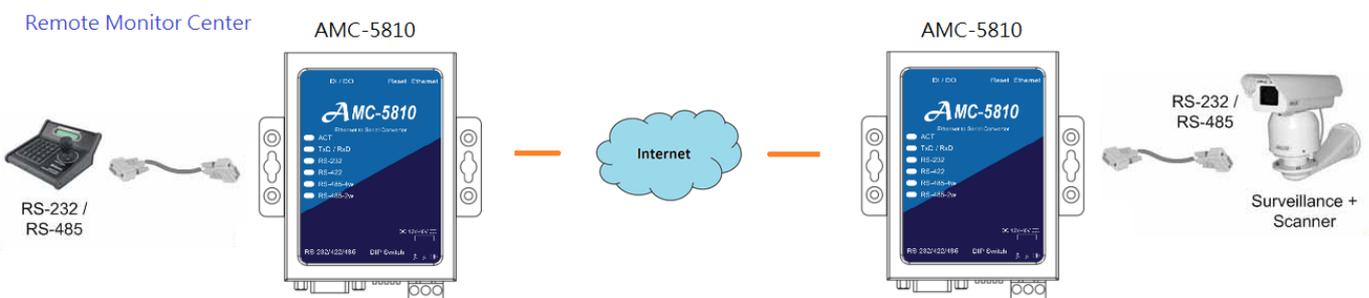


ADVANCED APPLICATIONS

To monitor, configure and manage the Robot conveyer including other machines in a manufacturing, PLC (Programmable Logical Control) is required. The PLC is used to drive above the manufacturing machines process. AMC-5810 can be set to TCP Server mode and connect the PLC. The administrator can configure and set command settings through Fast Ethernet intranet to control the PLC, the administrator and workstation. There is no need to be always sets by the side of the I/O machine.



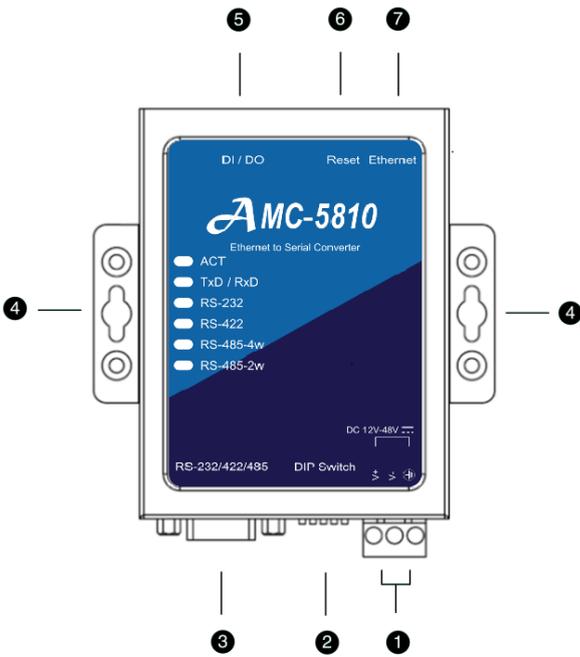
Using AMC-5810 Ethernet to Serial Converter can oversee and scanner to the control keyboard/joystick which is installed in the remote monitor center.



CHAPTER 2 SPECIFICATIONS

FORM FACTOR

Connections



Dimension Drawing

unit: mm



1. Main power input, 12~48 Vdc
2. Dip switch(set terminator and biasing resistor)
3. DB9 Male RS/232/422/485 Port
4. Wall-mount or Din-Rail kits fixed position
5. 3 channel Digital Output (DO), 3 channel Digital Input (DI)
6. Reset button
7. Ethernet RJ45 10/100M socket

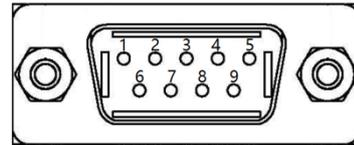
Status LED indicators

LED	Color	Indicates
ACT	Blinking	Ethernet Network operating
TxD/RxD	Green	Communication Data Transferring
	Red	Communication Data Reciving
RS-232	Green	Select the RS-232 communication interface
RS-422	Green	Select the RS-422 communication interface
RS-485-4w	Green	Select the RS-485-4w communication interface
RS-485-2w	Green	Select the RS-485-2w communication interface

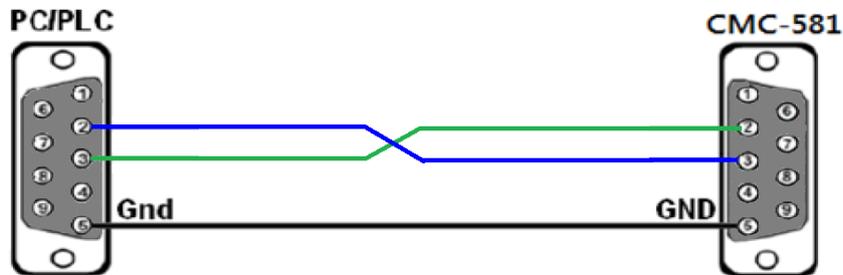
DB9 Pin Define

<u>DB9-PIN</u>	<u>RS-232</u>	<u>RS-422/485 4W</u>	<u>RS-485 2W</u>
1	DCD	TX-	-
2	RxD	TX+	-
3	TxD	RX+	Data+
4	DTR	RX-	Data-
5	GND	GND	GND
6	DSR	-	-
7	RTS	-	-
8	CTS	-	-
9	-	-	-

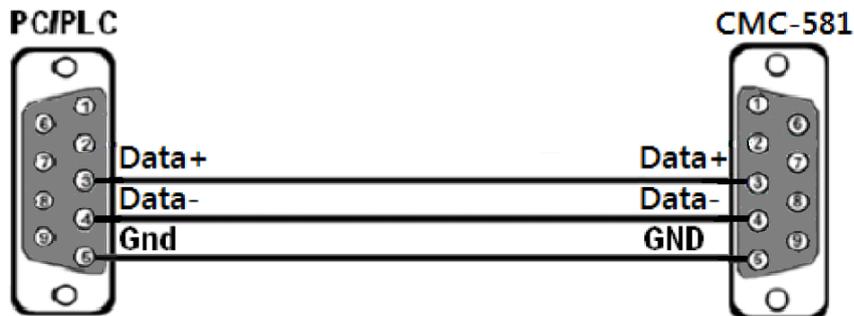
RS-232/422/485



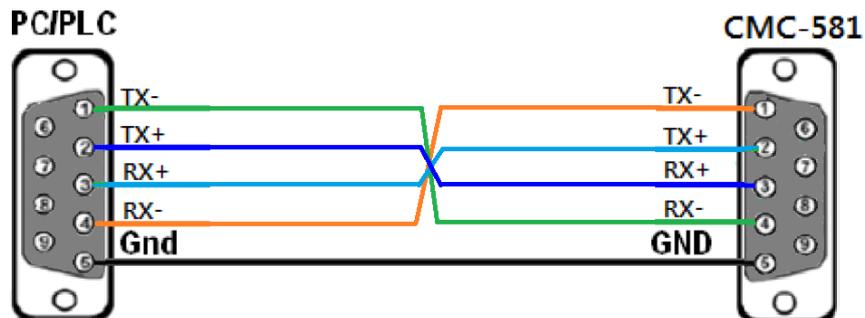
RS-232:



RS-485 2 Wire:

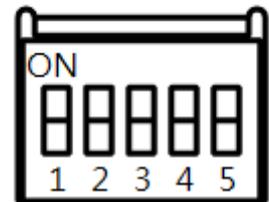


RS-485 4W/RS-422



DIP Switch Define

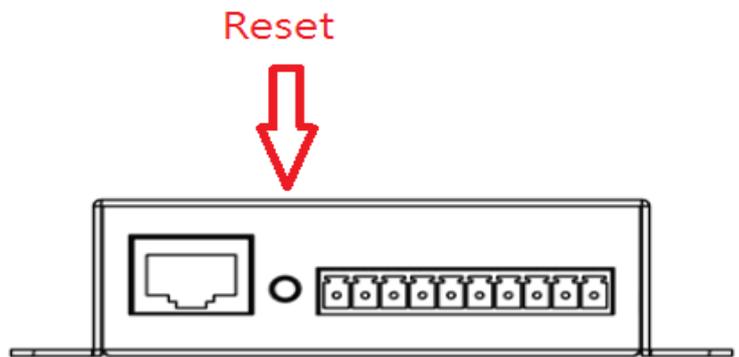
DIP Switch	Status	Description
SW-1	ON	RS-485 4W TX+/- Terminal Resistor 120 ohm
SW-2	ON	RS-485 4W RX+/- Terminal Resistor 120 ohm
		RS-485 2W Data+/- Terminal Resistor 120 ohm
SW-3*	ON*	RS-485 4W RX+/- Biasing Resistor 1K ohm
		RS-485 2W Data+/- Biasing Resistor 1K ohm
SW-4*	ON*	RS-485 4W RX+/- Biasing Resistor 1K ohm
		RS-485 2W Data+/- Biasing Resistor 1K ohm
SW-5	ON	RS-232 Echo (TX-->RX)



*SW-3 and SW-4 must be all ON or all OFF.

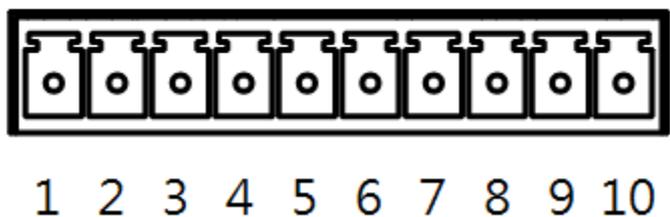
Reset button

Press button time	Description
Shortly	Reboot
15 second	Reset to default



DI/DO Pin Define

DI/DO Pin	Description
1	DI_0
2	DI_1
3	DI_2
4	DI_GND
5	DO_0
6	DO_0_GND
7	DO_1
8	DO_1_GND
9	DO_2
10	DO_2_GND



FEATURE LIST

Model Name	AMC-5810		
Ethernet Interface			
Number of Ports	1	Compliance	IEEE 802.3/3u compliant
Connector	RJ45	Speed	10/100Mbps
Magnetic Protection	1.5 KV	Indicator	Act
Webpage and Protocol Support			
Protocol	ARP,ICMP,TCP/IP,HTTP,UDP,DHCP, Telnet, and SMTP	Webpage	Serial mode configuration, Firmware upgrade, DI/DO setting
DI/DO Interface			
DI	3-channel digital input	DO	3channel,150mA sink-type and overcurrent protection
Connector	Terminal block 5.0mm	Isolation	2.5KV between system and DI/DO
Connector: DB9 male			
Interface selection	setting by internal jumpers	Terminator and Biasing functions	setting by internal jumpers
RS-232 signals	DCD, RxD, TxD, DTR, GND, DSR, RTS, CTS, RI	RS-422 signals	TxD+, TxD-, RxD+, RxD-, GND
RS-485 4-wire signals	TxD+, TxD-, RxD+, RxD-, GND	RS-485 2-wire	Data+, Data-, GND
Indicator	Green for TxD, Red for RxD	Definition of pin-out	DB-9
Connection Distance			
SW-1	A terminator between TxD+ and TxD-	SW-2	A terminator between RxD+(Data+) and RxD-(Data-)
SW-3, SW-4	2 biasing resistors for RS-485 network communication	SW-5	RS-232 Loop back test
Connections			
Ethernet	200 meters	RS-232	15 meters (50 feet)
RS-422	1200 meters (4000 feet)	RS-485 2w/4w	1200 meters (4000 feet),Max.32 nodes
ESD Protection and Isolation			
ESD Protection	ESD Contact 8KV, Air 15KV embedded	Isolation	2.5KV between system and RS-232/422/485
Performance			
Baud rate	300 to 230400bps		
Serial Parameters			
Data bits	5, 6, 7, 8	Stop bits	1, 1.5, 2
Parity	None, Even, Odd, Space, Mark	Flow control	RTS/CTS, XON/XOFF
Physical Characteristics			
Housing	SECC sheet metal (1mm), IP30 protection	Dimension	74 x 24.7 x 99 mm (W x H x D)
Weight	275 g		
Environment Operating			
Operating Temperature	0 ~ 70°C (32°F ~ 158°F)	Operating Humidity	20 ~ 85% @40°C, non-condensing
Storage Temperature	-20 ~ 85°C (-4°F ~ 185°F)	Storage Humidity	10 ~ 90% @40°C, non-condensing
Power Requirements			
Power Input	12 ~48Vdc	Consumption	110mA@24Vdc

CHAPTER 3 INSTALLATION

INSTALL THE CONVERTER

How to install your AMC-5810. The hardware installation of AMC-5810 Ethernet Serial Converter does not need software configuration. Please follow the below steps to install your AMC-5810 on a desktop or wall:

Step 1: Turn off the device power /station in a network to which the AMC-5810 will be attached.

Step 2: Ensure that there is no activity in the network.

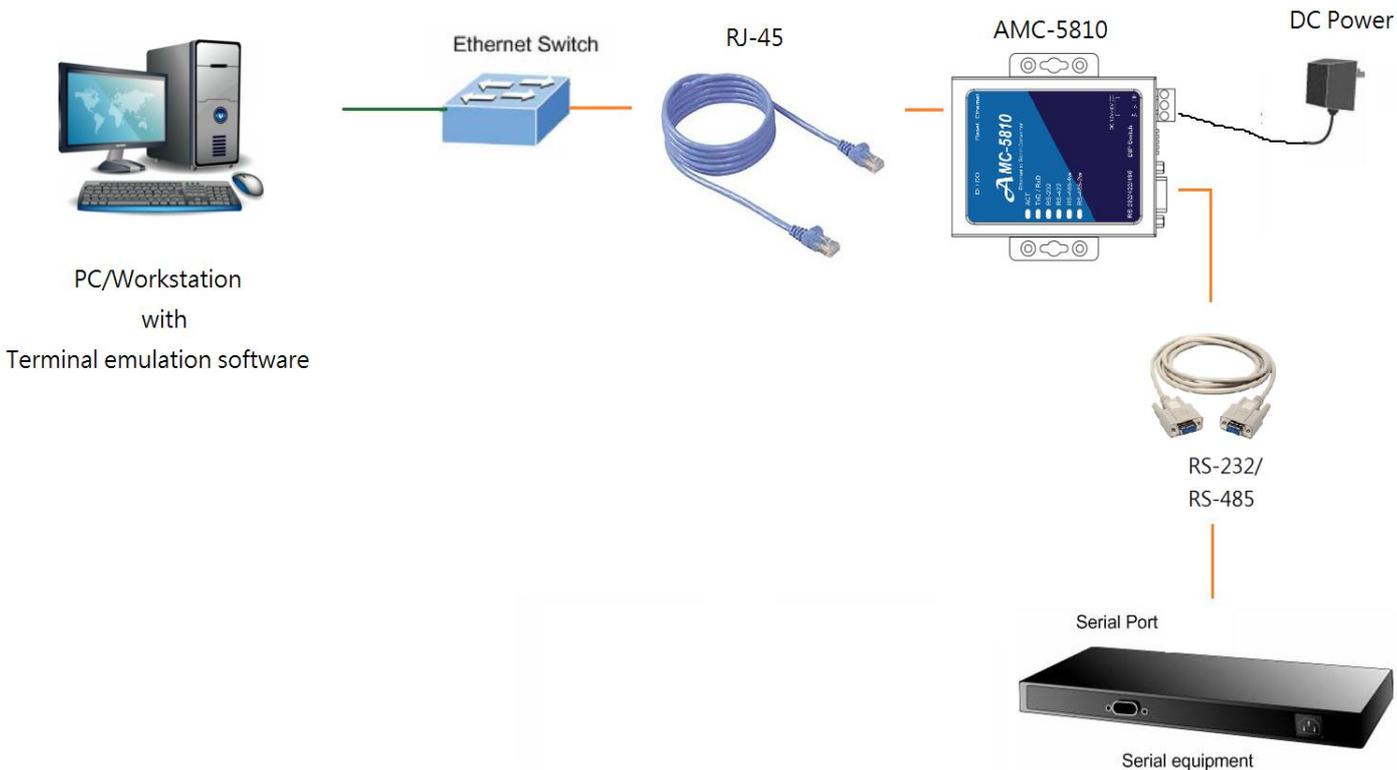
Step 3: Attach RJ-45 cable from the AMC-5810 to the network.

Step 4: Attach RS-232/RS-485 cable from the AMC-5810 to the want to connect devices.

Step 5: Connect the DC power to the AMC-5810 and verify that the interface lights up.

Step 6: Turn on the device power/station; the interface LED (Green) should be light if all cables are attached.

(Default is RS-232).



CHAPTER 4 MANAGEMENT

How to manage the AMC-5810:

- Overview
- Management methods
- Assigning an IP address to the AMC-5810
- Logging on to the AMC-5810

OVERVIEW

This chapter gives an overview of converter management. The AMC-5810 provides a simply **WEB browser interface**.

Using this interface, you can perform various converter configuration and management activities, including:

- **Administrator**
- **TCP Mode**
- **UDP Mode**
- **UART**
- **SMTP**
- **DIDO**
- **Reset Device**

Please refer to the following Chapter 5 for more details.

REQUIREMENTS

- Hardware Installation detail refer to the Chapter 3
- Network cables.

For AMC-5810: Use standard network (UTP) cables with RJ45 connectors.

- Subscriber PC installed with Ethernet NIC (Network Card)
- Workstations of subscribers running Windows 98/ME, NT4.0, 2000/2003/XP, MAC OS X or later, Linux, UNIX or other platform compatible with TCP/IP protocols.
- Above PC installed with WEB Browser, such as Microsoft Internet Explore or Google Chrome

LOGIN THE MEDIA CONVERTER

The way to manage the AMC-5810:

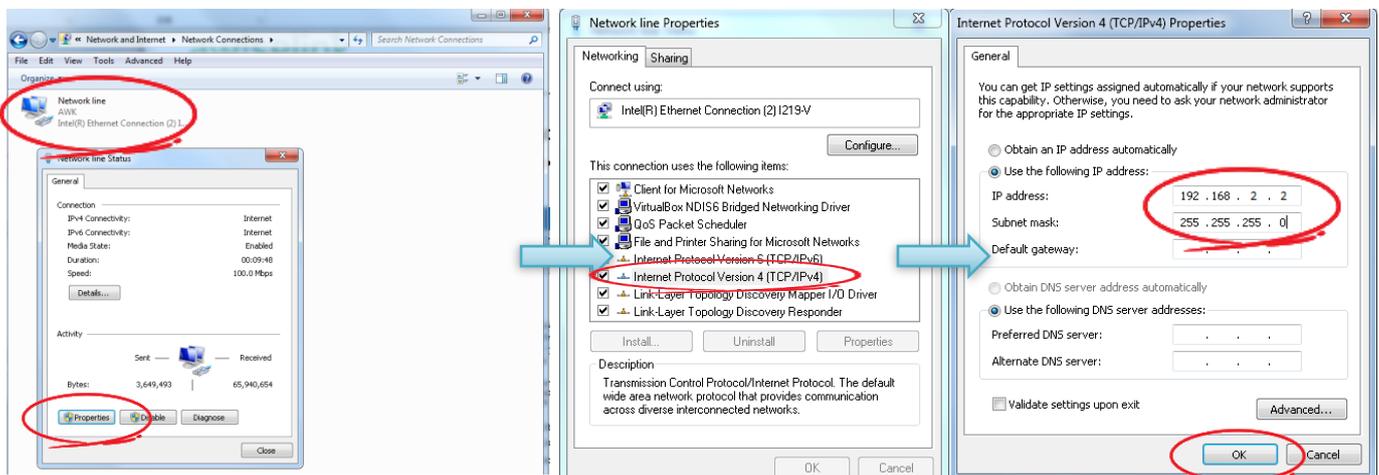
Web Management access through a network or dial-up connection. Before using the AMC-5810 web interface to manage setting operation, please make sure AMC-5810 is installed on network correctly, and each PC or Device on this network can access AMC-5810 via the web browser.

Setup note:

1. Ensure that your network interface card (NIC) is operational
2. Supports the TCP/IP protocol. (Which part)
3. Confirm AMC-5810 interface LED power on (Default is RS-232).
4. Ethernet Cable connects AMC-5810 to computer or device.
5. The AMC-5810 default IP address is "192.168.2.1".
6. Change your computer or device IP address to 192.168.2.x. (x from 1 to 254, except 127)
7. Use web browser to access AMC-5810 Web Management.

Follow as bellow step to access management page of AMC-5810.

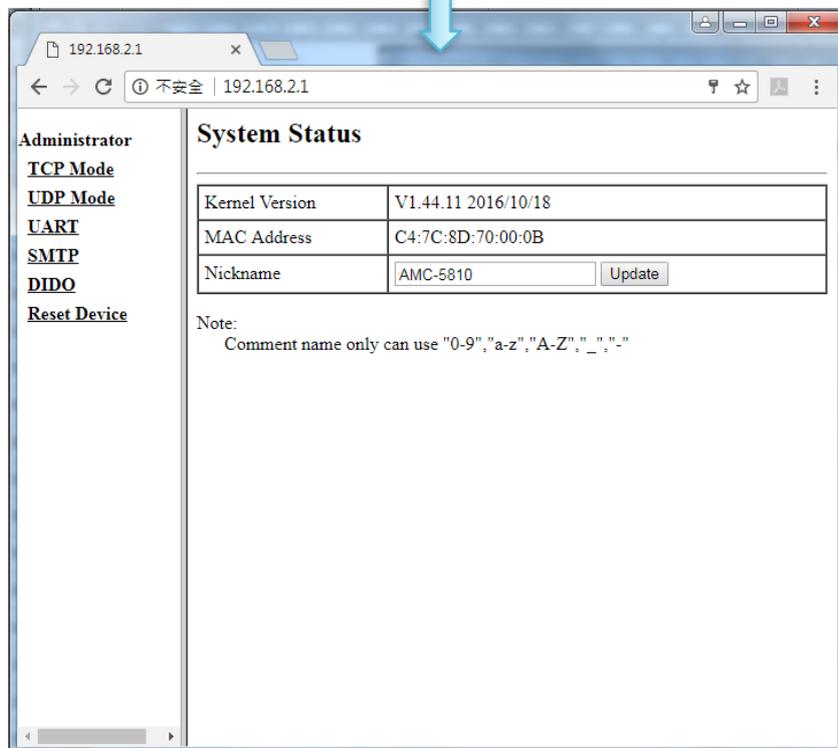
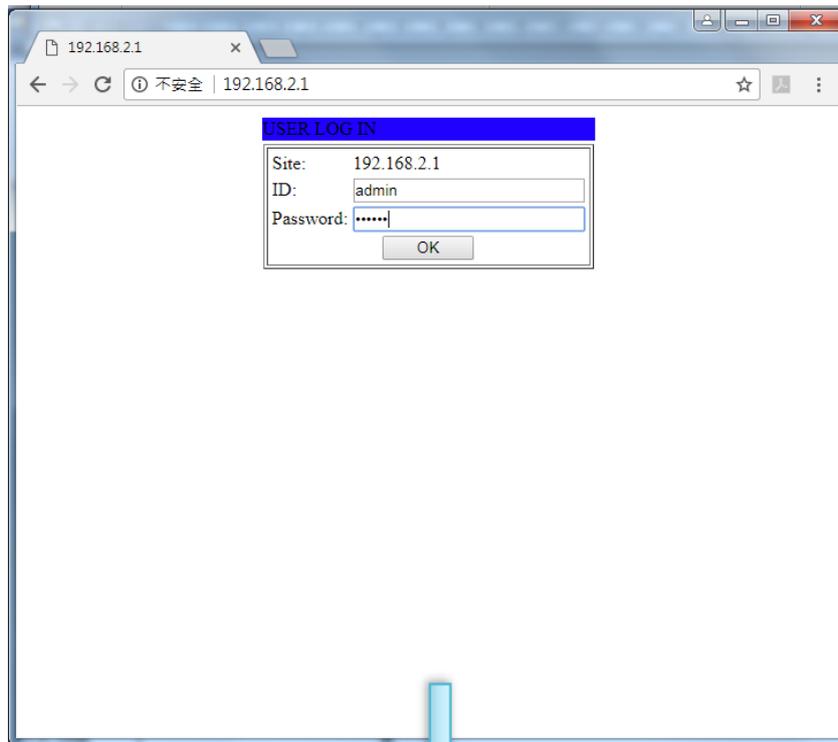
Step1 Set IP address of network adapter on PC



Network Connections

IPv4 Properties

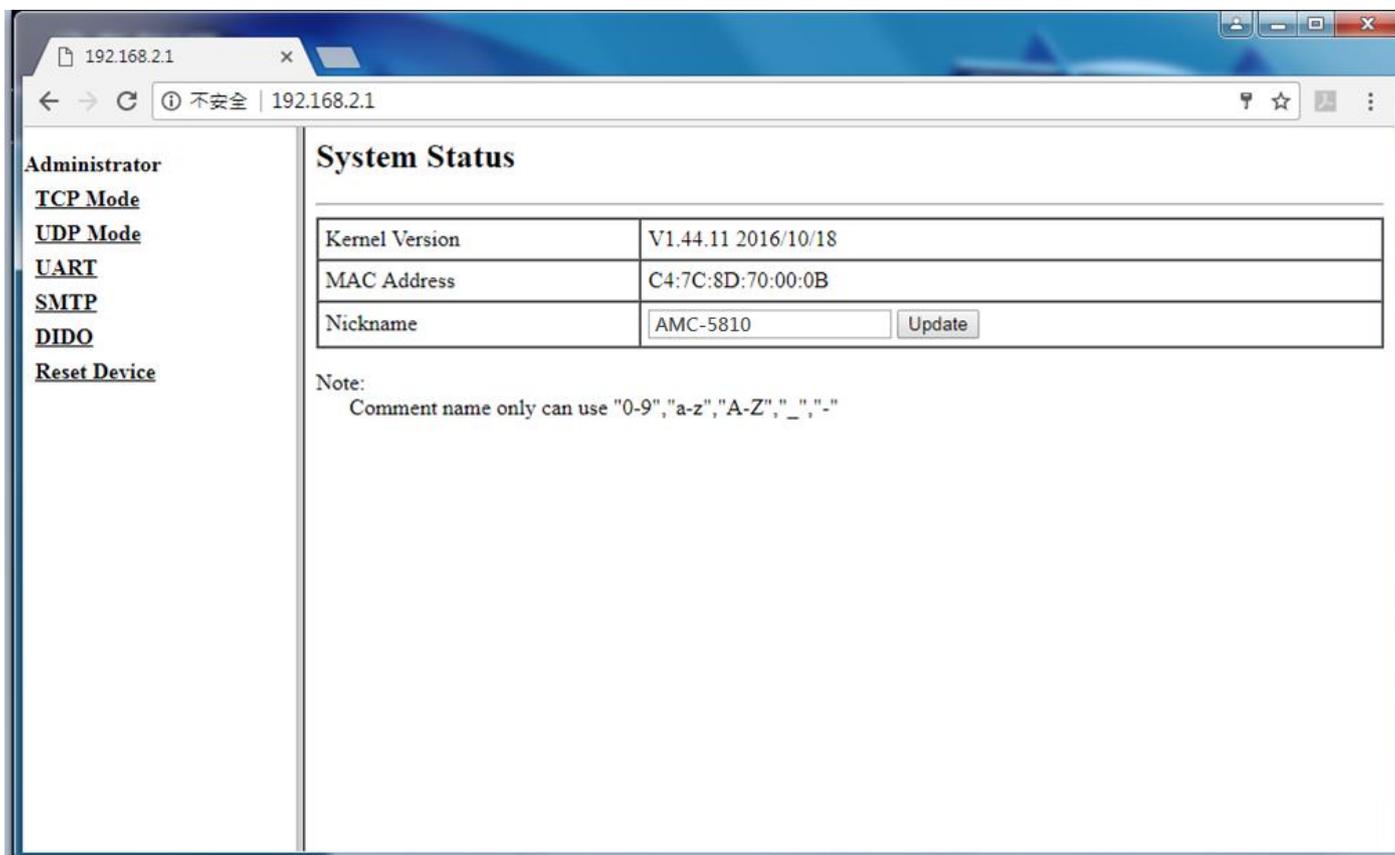
Step2 Open web browser and set IP address at URL to enter login page. Default IP is "192.168.2.1". Enter Name & Password to access AMC-5810 web page. Default ID/Password is admin/system.



CHAPTER 5 WEB CONFIGURATION

MAIN MENU

After login successful, the main screen displays the converter System Status page as below:



As listed at the left of the main screen, the configurable smart functions are shown as below:

- **Administrator** – Check the hardware, software version and System MAC address and IP address of the converter. And the password changed firmware upgrade.
- **TCP Mode** – Setup the TCP mode of the converter.
- **UDP Mode** – Setup the UDP mode of the converter.
- **UART** – Setup the serial port value of the converter.
- **SMTP** – Setup the SMTP value of the converter.
- **DIDO** – Setup the DI/DO status of the converter.
- **Reset Device** – System reboot.

ADMINISTRATOR-AUTHENTICATION CONFIGURATION

The Authentication Configuration page provides administrator to secure Web login.

Administrator

- [Authentication Configuration](#)
- [System IP Configuration](#)
- [System Status](#)
- [Load default setting](#)
- [Firmware update](#)
- [Boot Loader upgrade](#)
- TCP Mode**
- UDP Mode**
- UART**
- SMTP**
- DIDO**
- Reset Device**

Authentication Configuration

Setting	Value
Username	<input type="text" value="admin"/> max:15
Password Confirm	<input type="password" value="*****"/> max:15 <input type="password" value="*****"/>

Note:
Comment name only can use "0-9", "a-z", "A-Z"

192.168.2.1/setPASS.htm

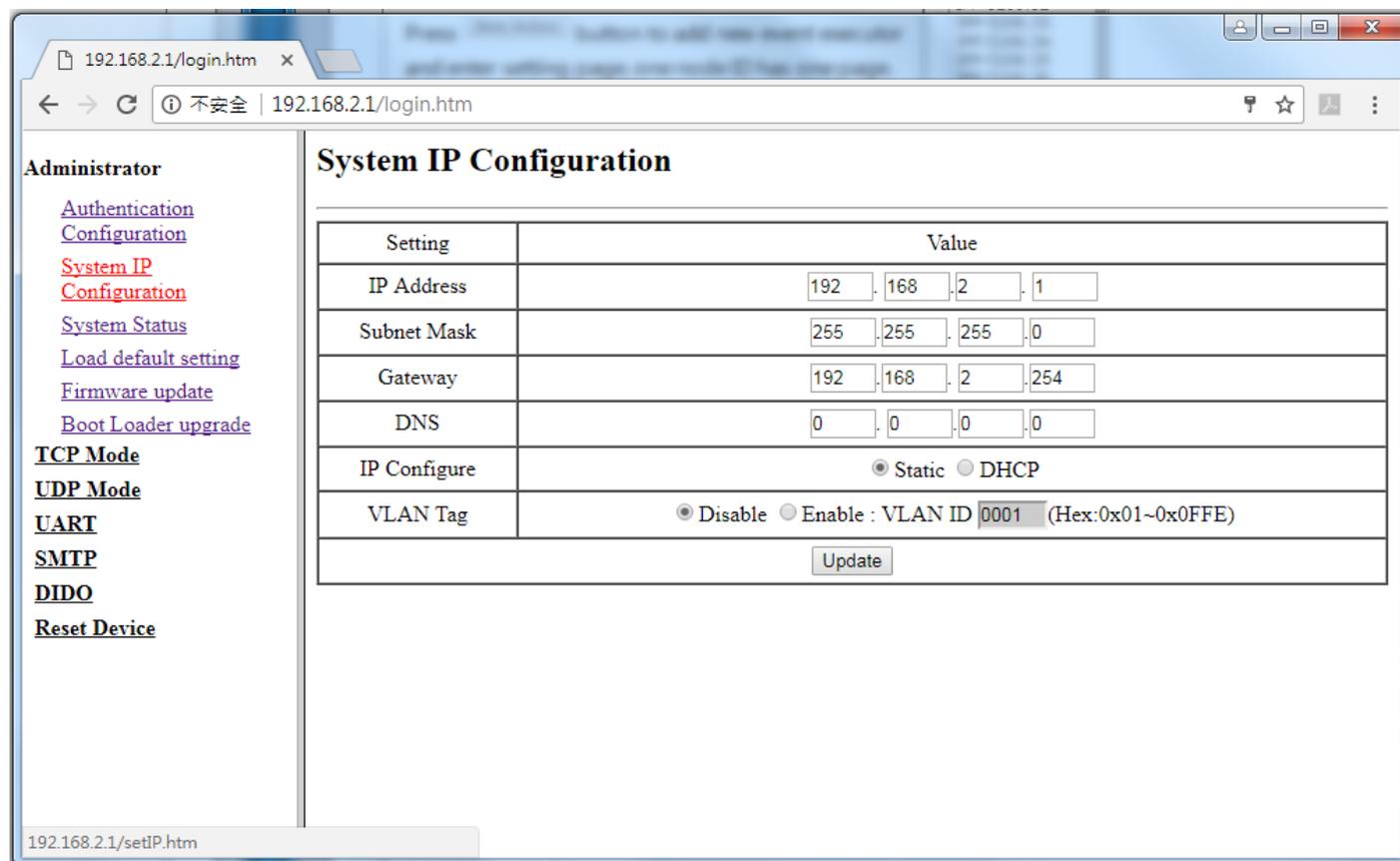
The page includes the following configurable data:

-
- **Username:** Display the user name.
 - **Password:** Specifies the new password. The password is not displayed. As it entered an "•" corresponding to each character is displayed in the field.

(The maximum length is 15 characters)
 - **Confirm Password:** This confirms the new password. The password entered into this field must be exactly the same as the password entered in the Password field.
-

ADMINISTRATOR-SYSTEM IP CONFIGURATION

The System IP Configuration page provides information for the current device. System Info page helps a network manager to identify IP setting etc.

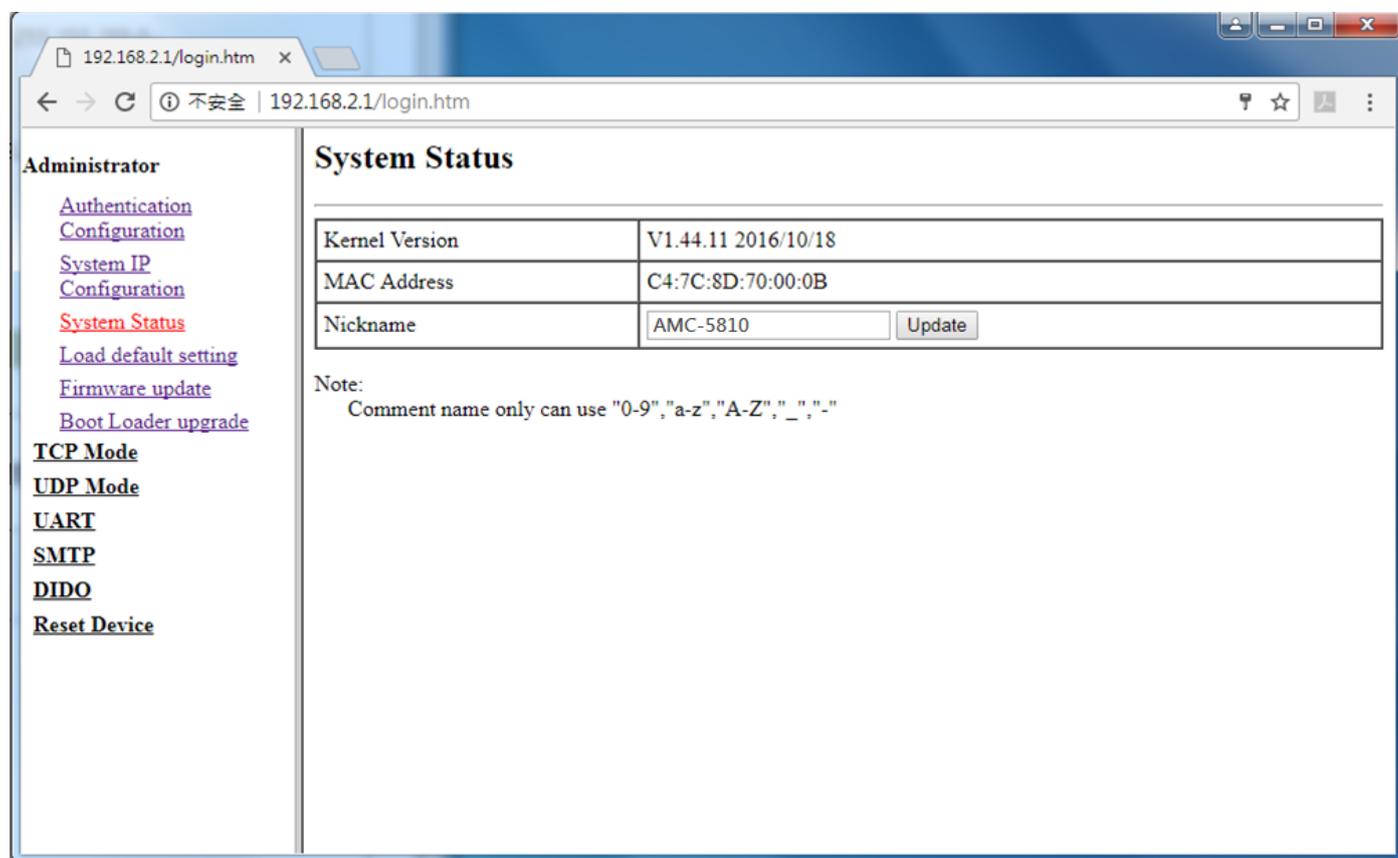


The page includes the following configurable data:

- **IP Address:** The current IP Address of the device. The IP Address could be manual assigned. The factory default value is 192.168.2.1.
- **Subnet Mask:** The current IP Subnet Mask setting on the device. The factory default value is 255.255.255.0.
- **Gateway:** The default gateway for the IP interface. The factory default value is 192.168.2.254.
- **DNS:** The DNS for the device. The factory default value is 0.0.0.0.
- **IP Configure:** The IP type for the device. The factory default value is Static.
- **VLAN Tag:** Setup the VLAN Tag for the device. The factory default is Disable.

ADMINISTRATOR-SYSTEM STATUS

The System Status page provides information for the current device. System Info page helps a network manager to identify the versions, mac address and model name.

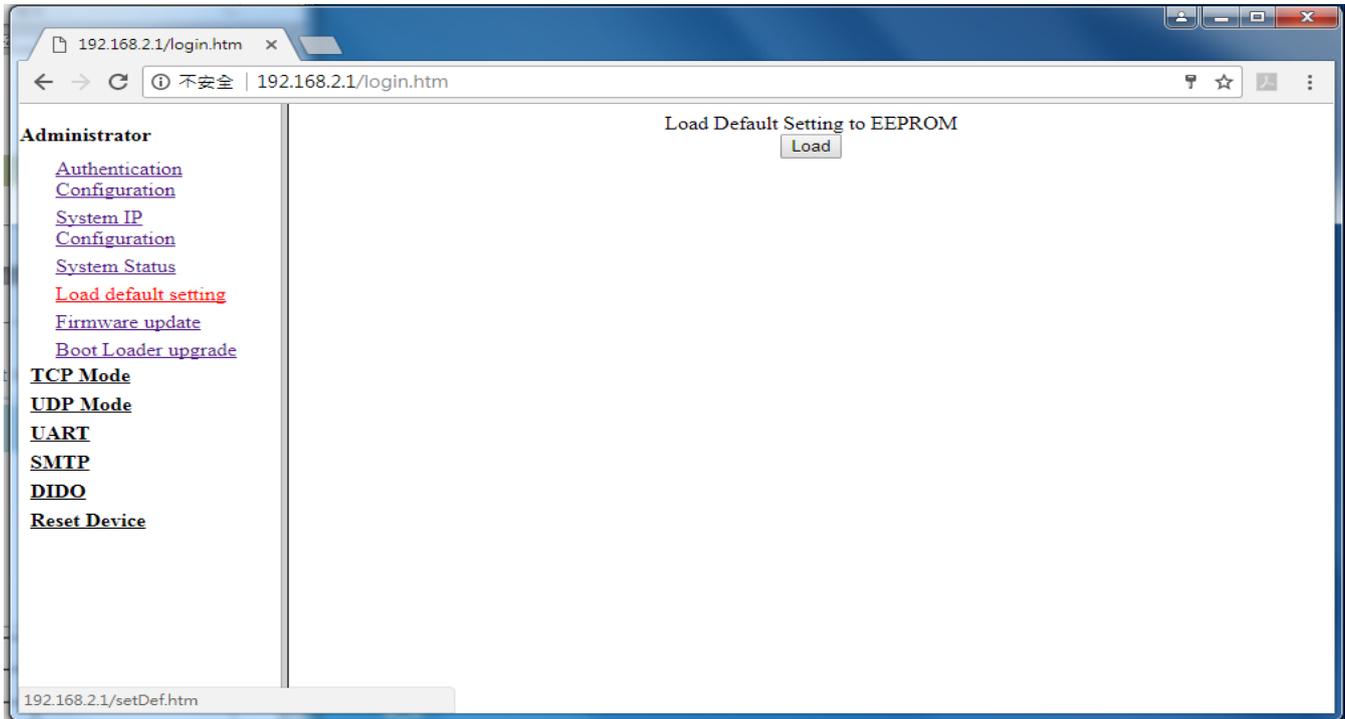


The page includes the following fields:

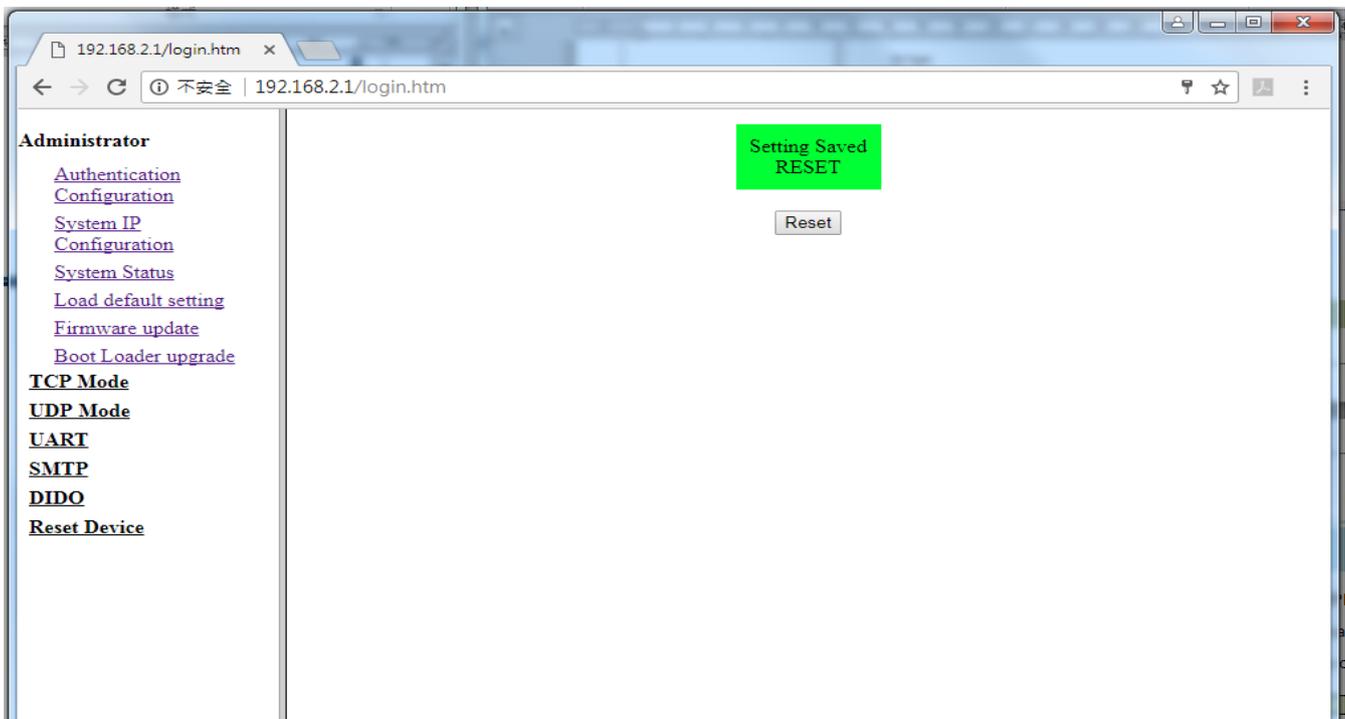
- **Kernel Version:** The current kernel version on the device.
- **MAC Address:** Specifies the device MAC address.
- **Nickname:** Specifies the device Model Name. The factory default is AMC-5810.

ADMINISTRATOR-LOAD DEFAULT SETTING TO EEPROM

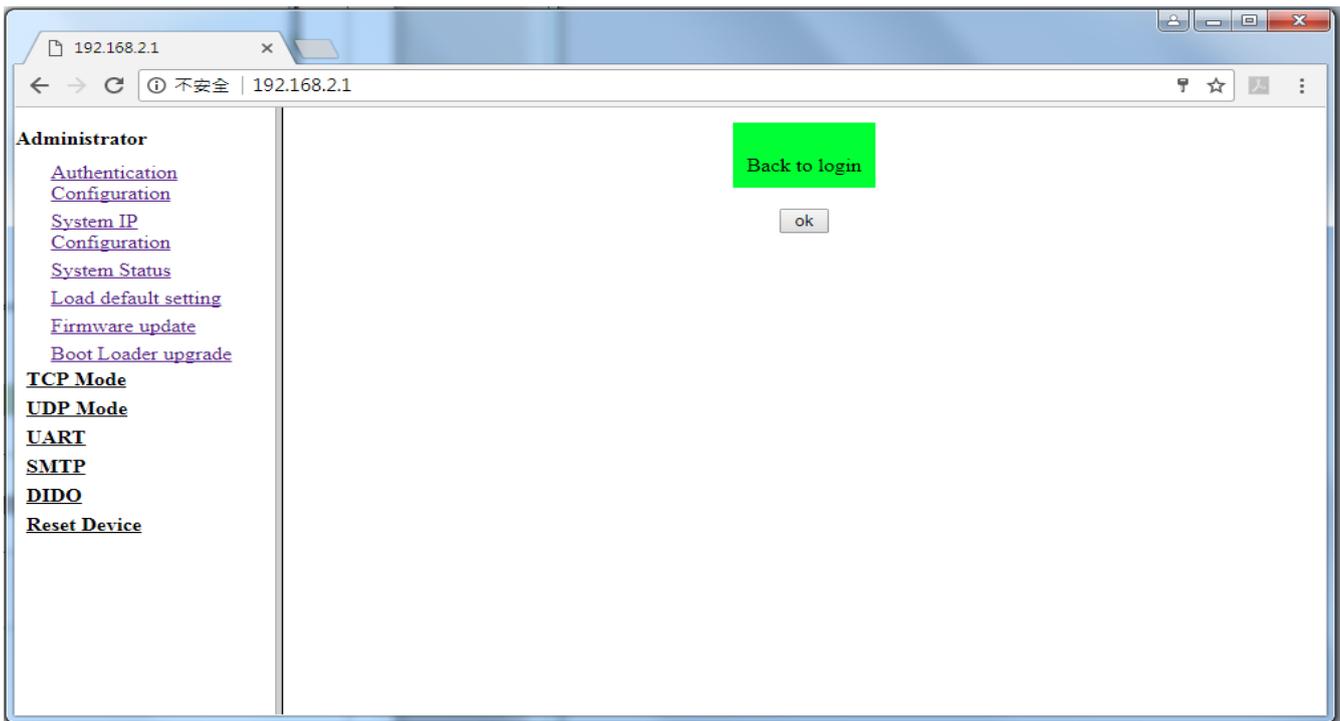
The Load Default Setting can reset the AMC-5810 back to the factory default mode.



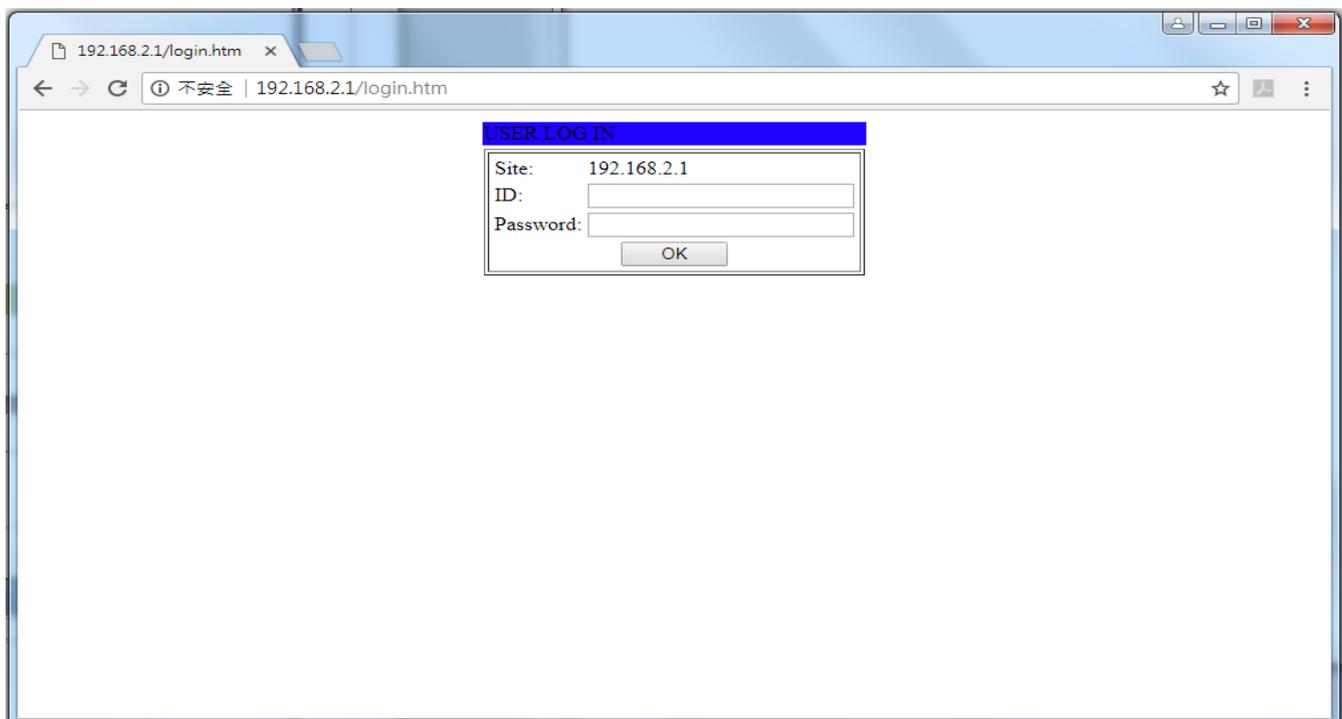
Press **Load** button to load factory default setting to AMC-5810 EEPROM.



Press **Reset** button to save setting saved reset

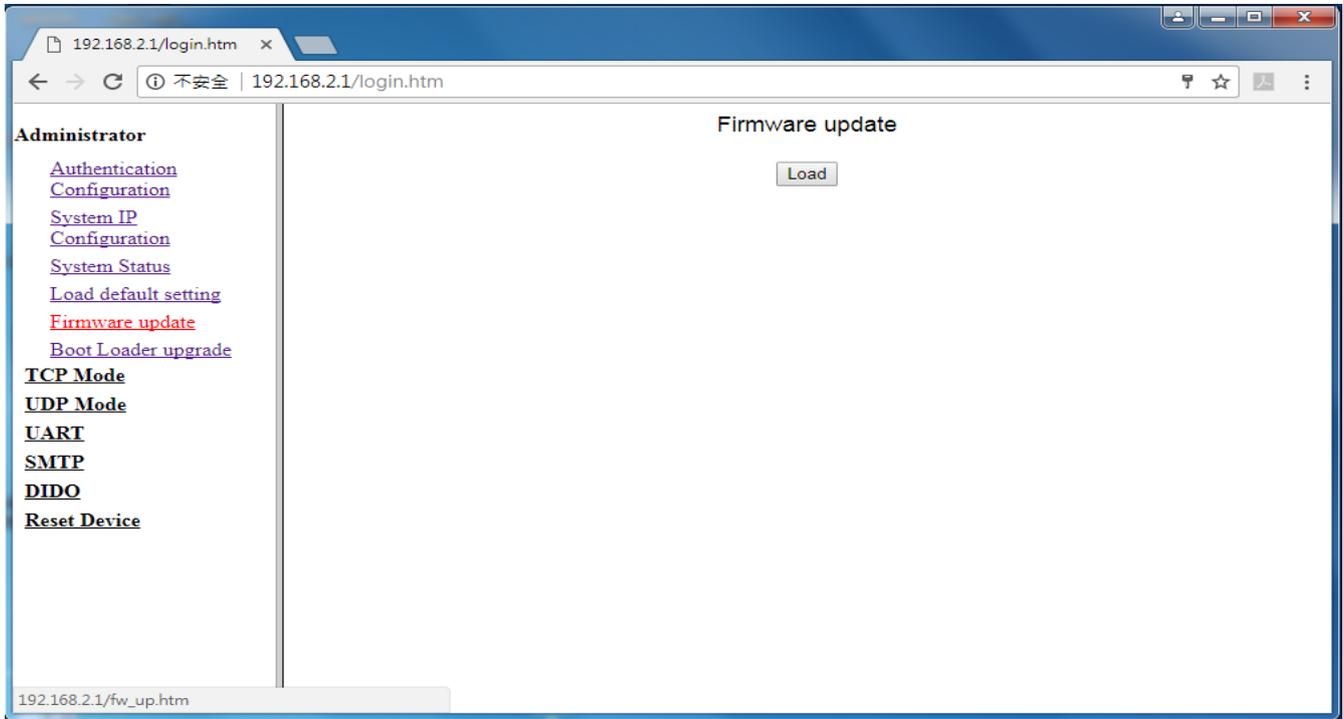


Press ok to return to the login screen.

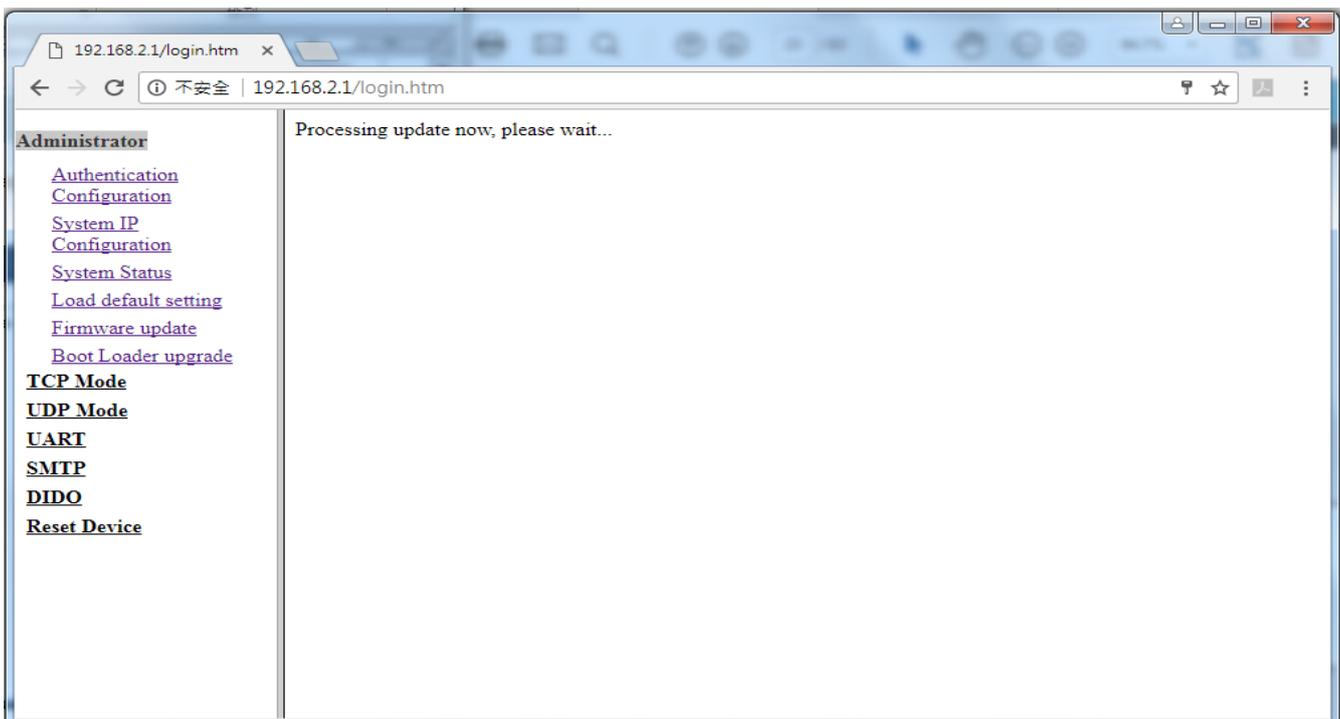


ADMINISTRATOR-FIRMWARE UPDATE

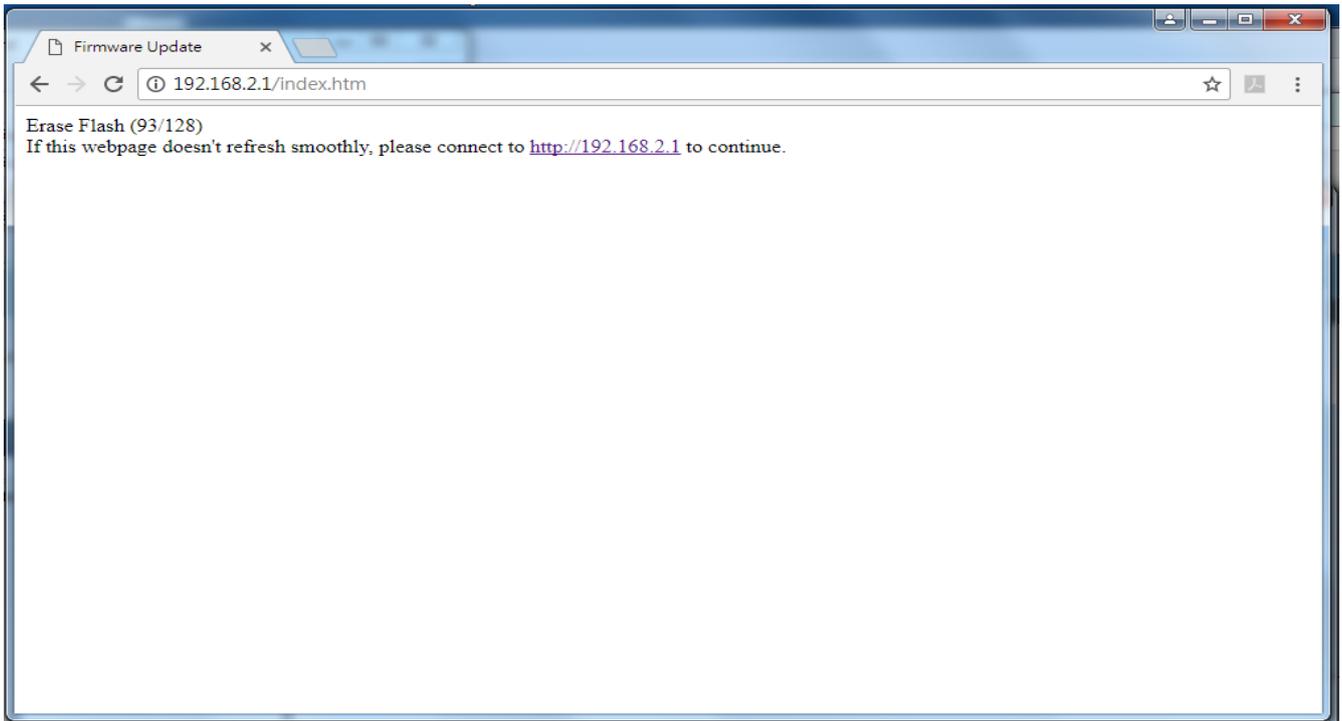
The Firmware Update page contains fields for downloading system image files from the Local File browser to the device.



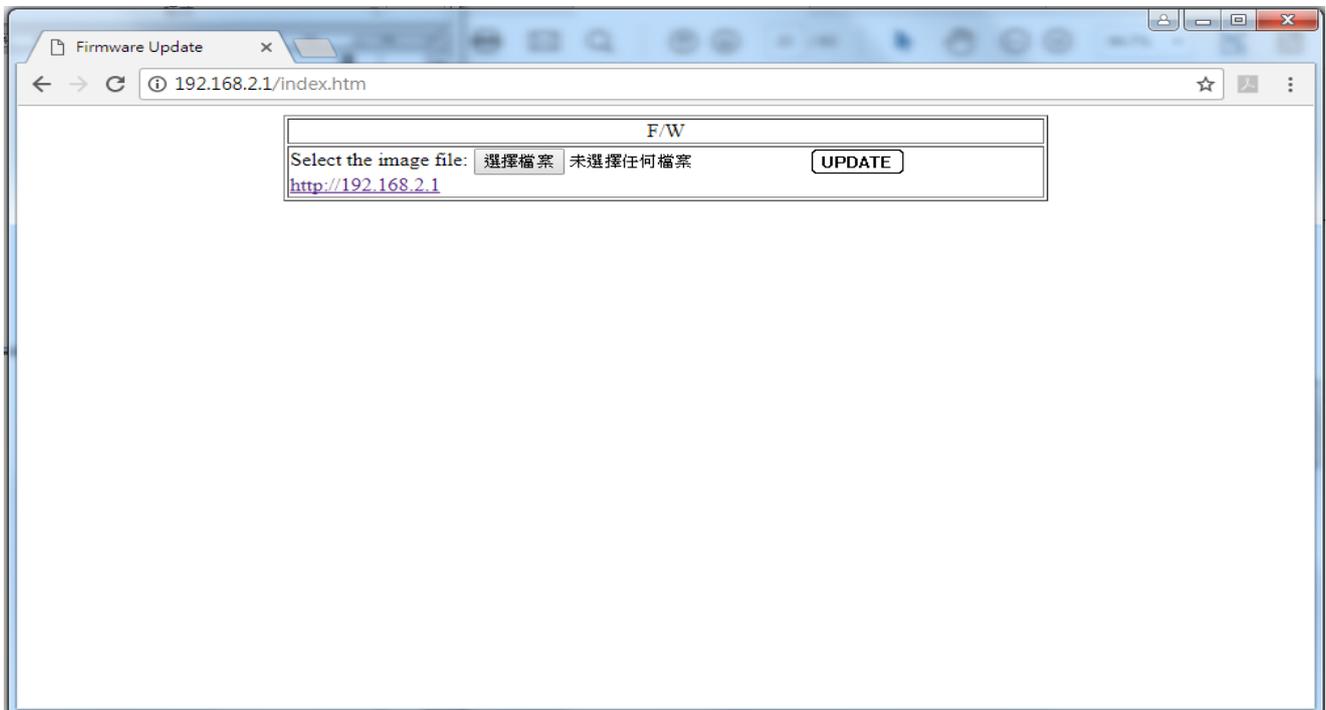
Press button to start firmware update.



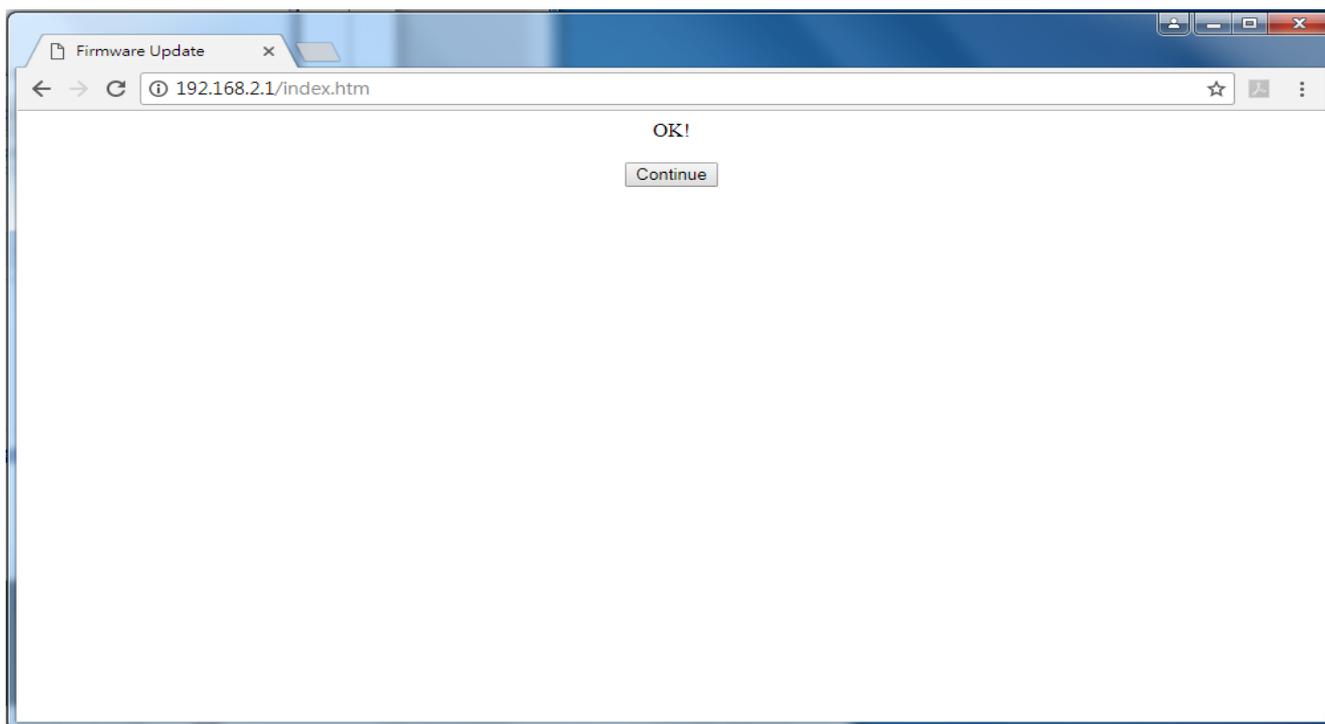
When the button **Load** is pressed, flash will be erased. The Firmware update screen is shown below.



After erasing the flash, go to the select the image file update page.



The update end screen is as follows



Press **Continue** button return to the login screen.

- **Note**



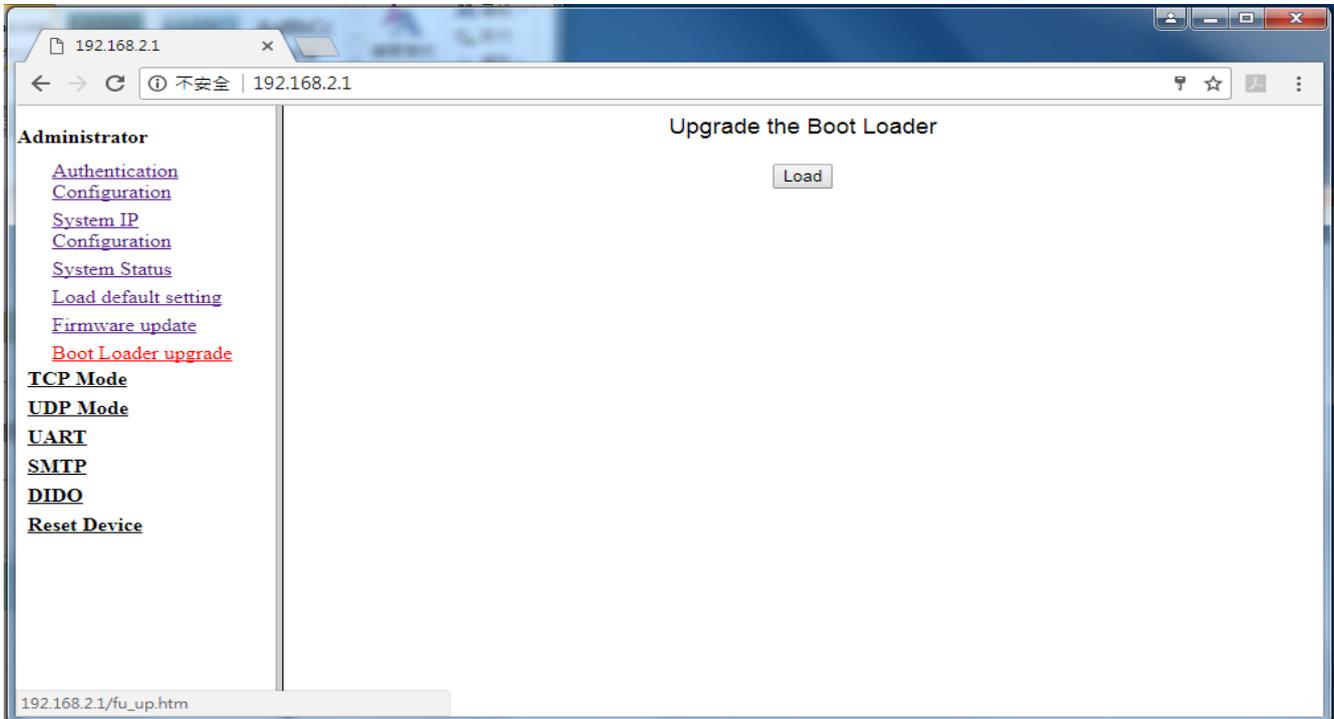
Do not power off the converter until the update progress is complete.



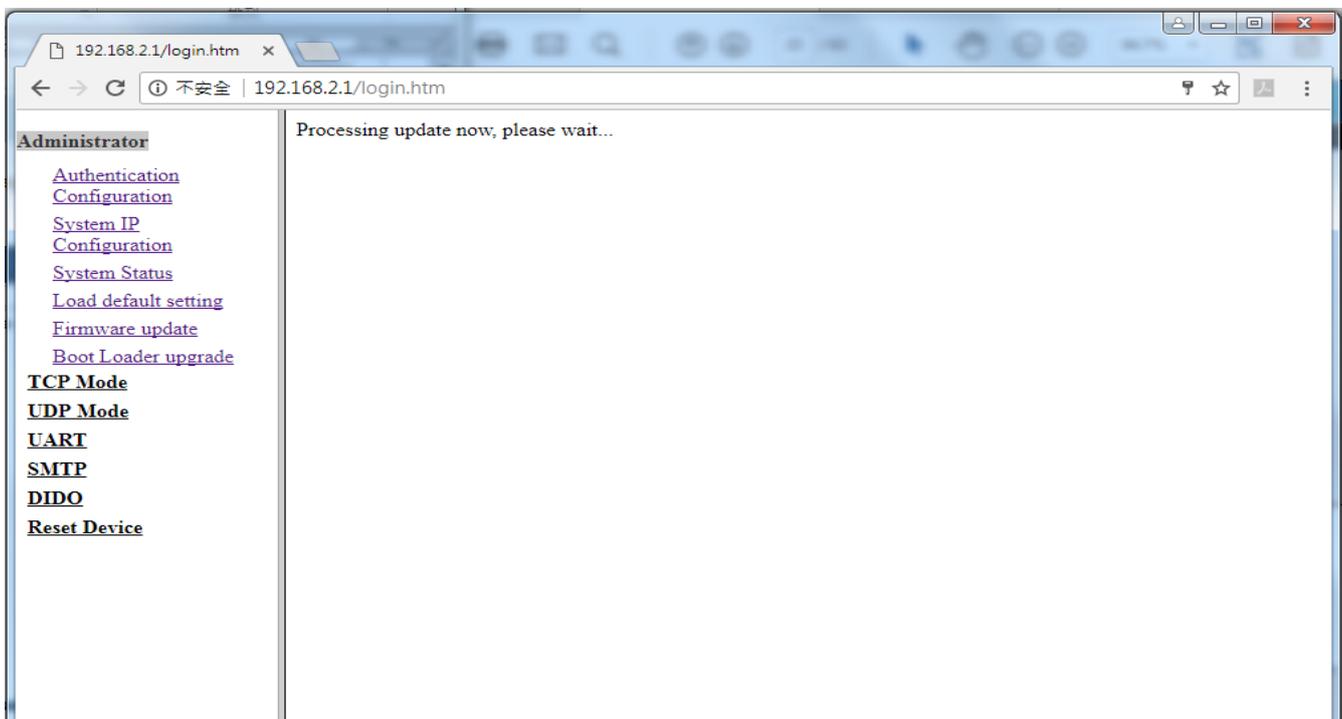
Do not quit the Firmware Upgrade page without press the "Upgrade" button - after the image is loaded. Or the system won't apply the new firmware. Users have to repeat the firmware upgrade processes again.

ADMINISTRATOR-UPGRADE THE BOOT LOADER

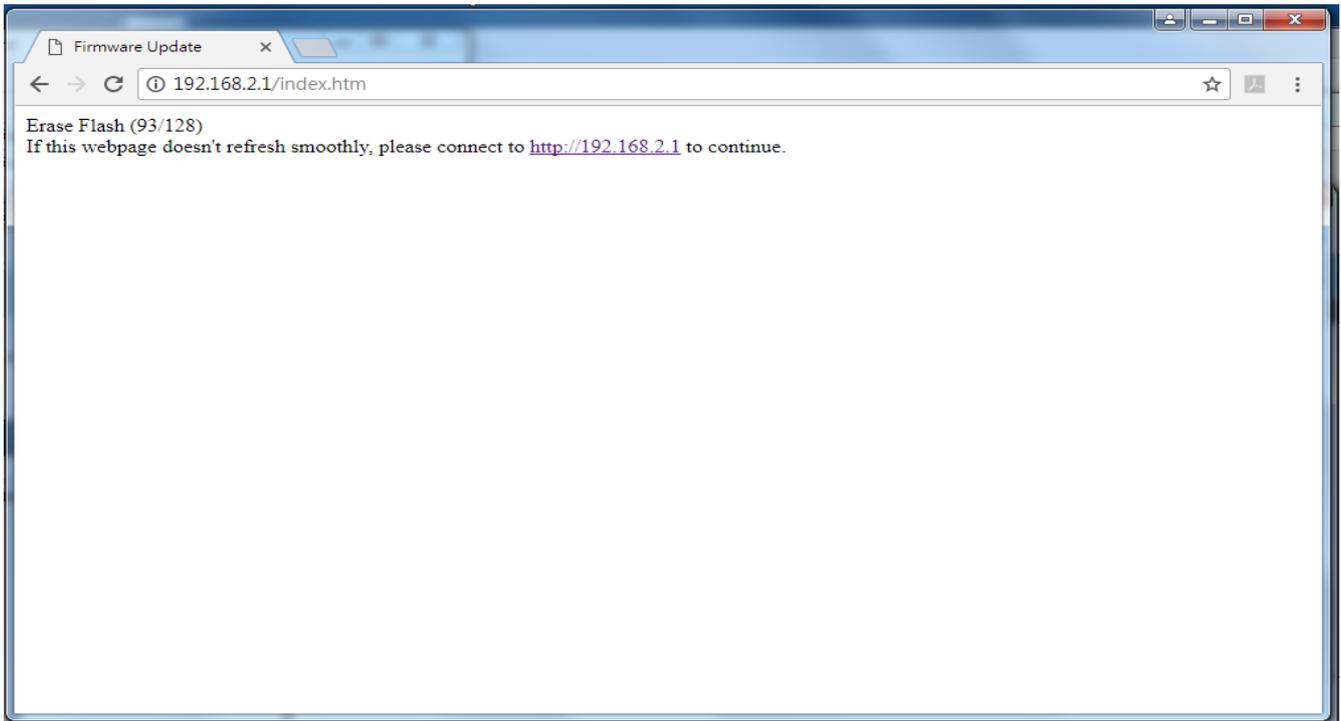
The Upgrade the Boot Loader page contains fields for downloading Boot Loader image files from the Local File browser to the device.



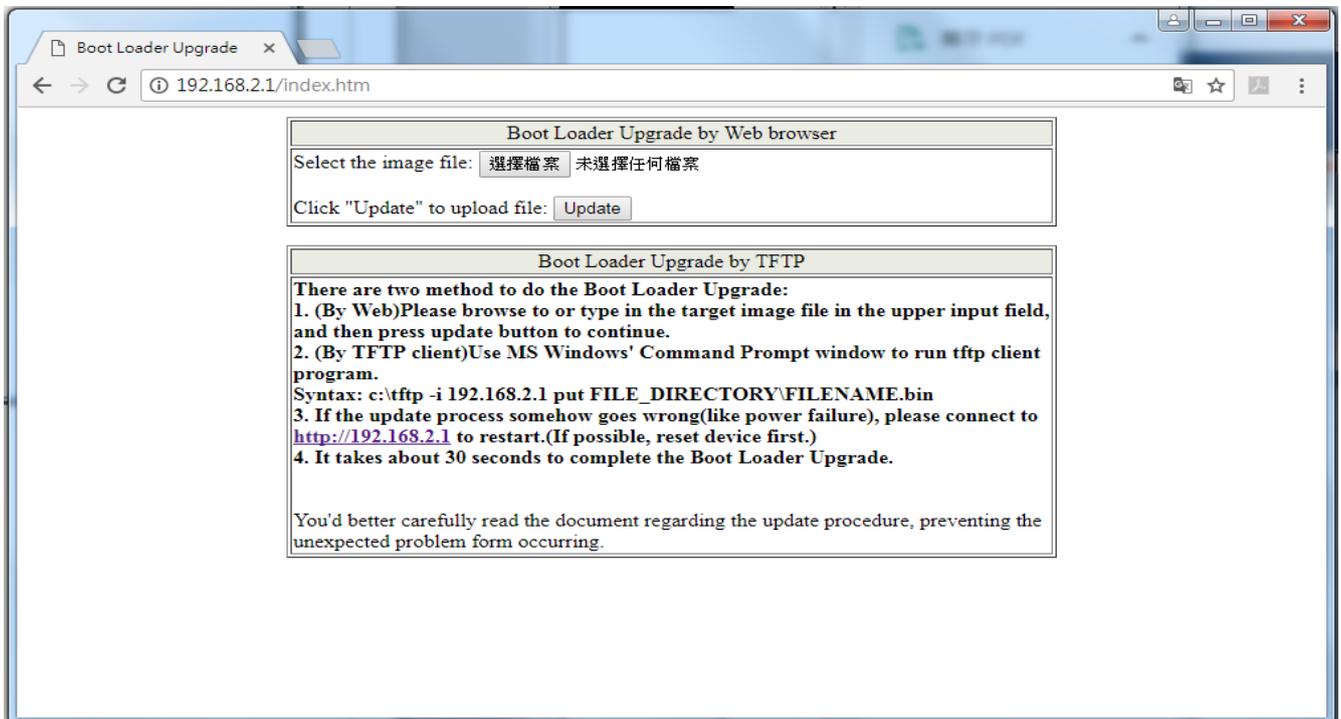
Press **Load** button to start Boot Loader upgrade.



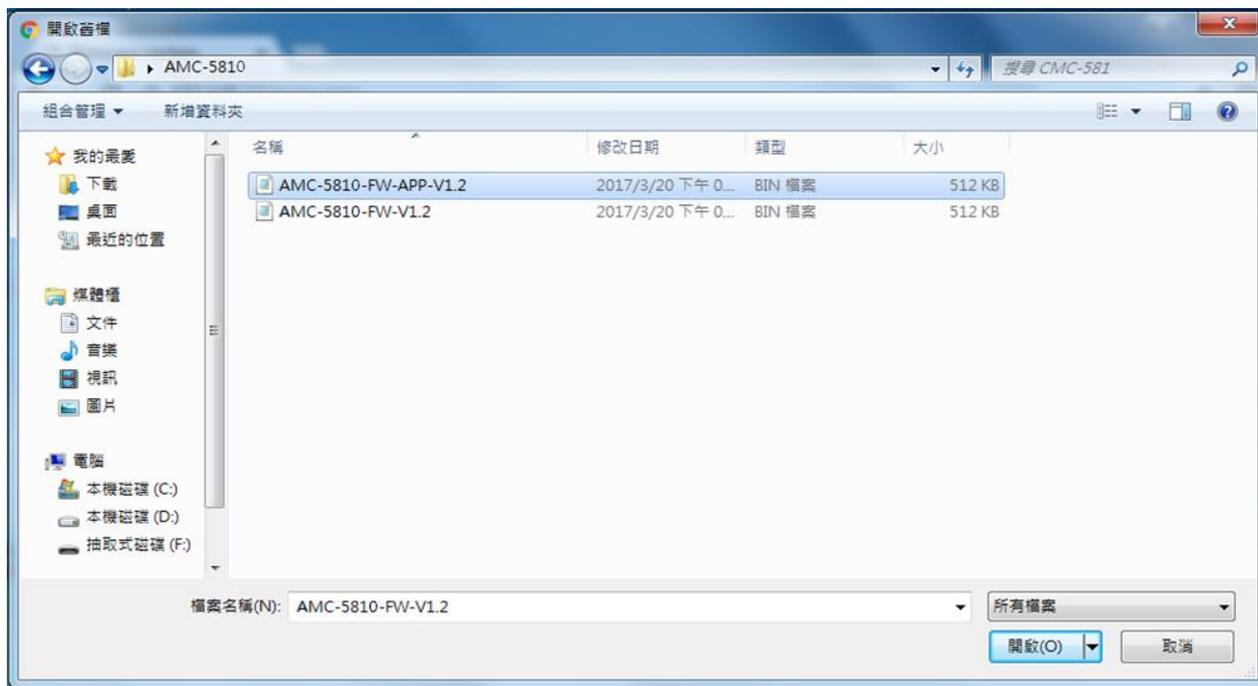
When the button **Load** is pressed, flash will be erased. The Boot Loader upgrade screen is shown below.



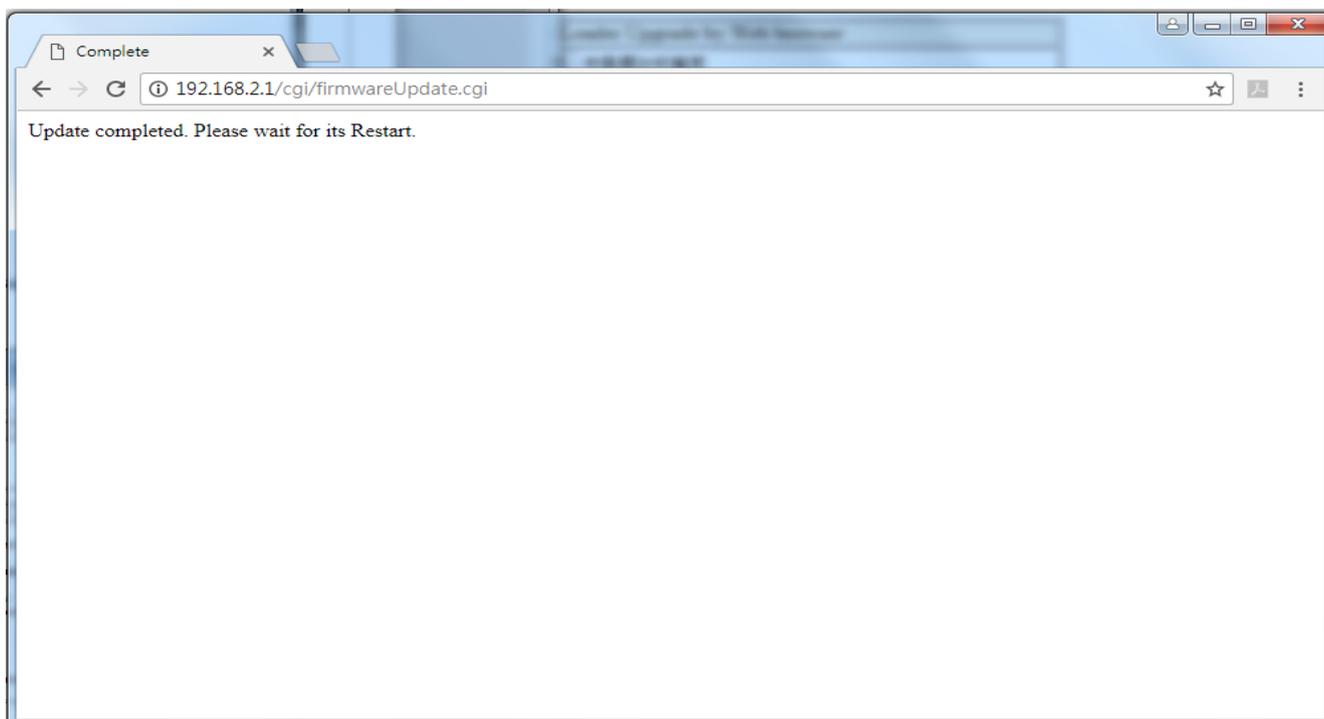
After erasing the flash, go to the select the image file update page.



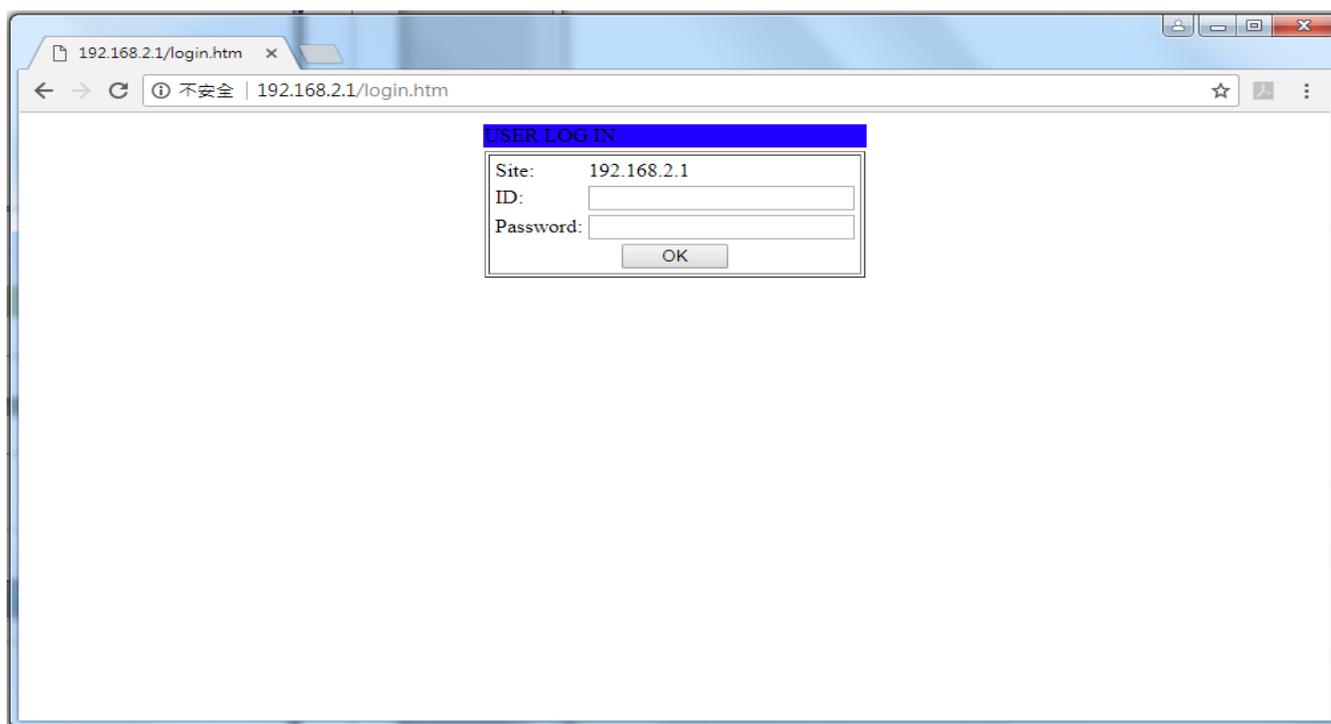
Click the **選擇檔案** button of the main page, the system would pop up the file selection menu to choose Boot Loader file.



Select on the Boot Loader file then click "Upgrade". The Boot Loader upgrade may take 60 seconds. The update end screen is as follows.



Return to the login screen.



- **Note**



Do not power off the converter until the update progress is complete.



Do not quit the Boot Loader Upgrade page without press the “Upgrade” button - after the image is loaded. Or the system won’ t apply the new Boot Loader file. Users have to repeat the Boot Loader upgrade processes again.

TCP MODE

The TCP Mode page provides TCP Configuration for the current device. System Info page helps a network manager to setup Telnet, Data port number, Control protocol etc.

Item	Value
Telnet Server/Client	<input checked="" type="radio"/> Server <input type="radio"/> Client <input type="radio"/> Disable
Reverse Telnet	<input type="radio"/> On <input checked="" type="radio"/> Off
CLI Mode	<input type="checkbox"/> Enable
Data Port Number	<input type="text" value="23"/>
Control Protocol	<input type="radio"/> RFC2217 <input checked="" type="radio"/> Port Number : <input type="text" value="6000"/>
Remote Server IP Address	<input checked="" type="radio"/> IP <input type="text" value="210"/> . <input type="text" value="200"/> . <input type="text" value="181"/> . <input type="text" value="102"/> <input type="radio"/> Domain Name <input type="text" value="0"/>
Client mode inactive timeout	<input type="text" value="20"/> minute (1~99,0=Disable)
Server mode protect timeout	<input type="text" value="60"/> minute (1~98,0=Disable,99=Can't replace)
<input type="button" value="Update"/>	

The page includes the following configurable data:

- **Telnet Server/Client:**

Server mode

When the AMC-5810 is configured to TCP Server mode, it allows Serial device that connected to serial port of AMC-5810 to establish TCP communication over Intranet or Internet network between. It opens the TCP port of AMC-5810 to wait for serial application to establish a TCP connection. After the connection is established, data can be transmitted in both directions.

Client mode

When the AMC-5810 is configured to TCP Client mode, it allows Serial device that connected to serial port of AMC-5810 to establish TCP communication actively over Intranet or Internet network between. After the data has been transferred, the AMC-5810 can disconnect automatically from the Remote Host depends on the TCP Inactive timeout settings.

- **Reverse Telnet**

Reverse telnet. The factory default value is OFF.

- **CLI Mode**

CLI Mode is the way that the user or client issues commands to the program in the form of successive lines of text (command lines). (The example will explain this feature)

- **Data Port Number**

The TCP port that AMC-5810 uses to listen to connections and that other device must use to contact AMC-5810. To avoid conflicts with well-known TCP ports, the default is set to "23".

- **Control Protocol**

Control protocol. The factory default value is Port Number: 6000.

- **Remote Server IP Address**

Allow the AMC-5810 to connect actively to the remote host whose IP address is set by this parameter.

- **Client mode inactive timeout**

Use the parameter to set an inactive timeout. The unit drops the connection if there is no activity on the serial line before the set time expires.

- **Server mode protect timeout**

Use the parameter to set a protect timeout. The unit closes the connection if there is no activity on the serial line before the set time expires.

UDP MODE

When the AMC-5810 is configured to UDP Client mode, it allows Serial device that connected to serial port of AMC-5810 to quickly transmit data to multiple Remote Hosts over Intranet or Internet network by unicast or multicast. It also makes the Serial device to receive data from more than one Remote Hosts. The parameter defines the maintenance status for listen for the UDP connection. In UDP Client mode, you need to define the remote IP Address and Local listen port number.

Item	Value														
Mode	<input type="radio"/> Listen <input type="radio"/> Normal <input checked="" type="radio"/> Disable														
Local Port	21														
Remote Address	<table border="1"> <thead> <tr> <th>IP</th> <th>Port</th> </tr> </thead> <tbody> <tr> <td> <input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name </td> <td>0</td> </tr> <tr> <td> <input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name </td> <td>0</td> </tr> <tr> <td> <input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name </td> <td>0</td> </tr> <tr> <td> <input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name </td> <td>0</td> </tr> <tr> <td> <input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name </td> <td>0</td> </tr> <tr> <td> <input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name </td> <td>0</td> </tr> </tbody> </table>	IP	Port	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0
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	<input checked="" type="radio"/> 0 . 0 . 0 . 0 IP <input type="radio"/> Domain Name	0													

The page includes the following configurable data:

- **Mode:**

Setup the UDP mode. The factory default value is "disable" .

- **Local Port:**

Enter the local port number.

- **Remote Address:**

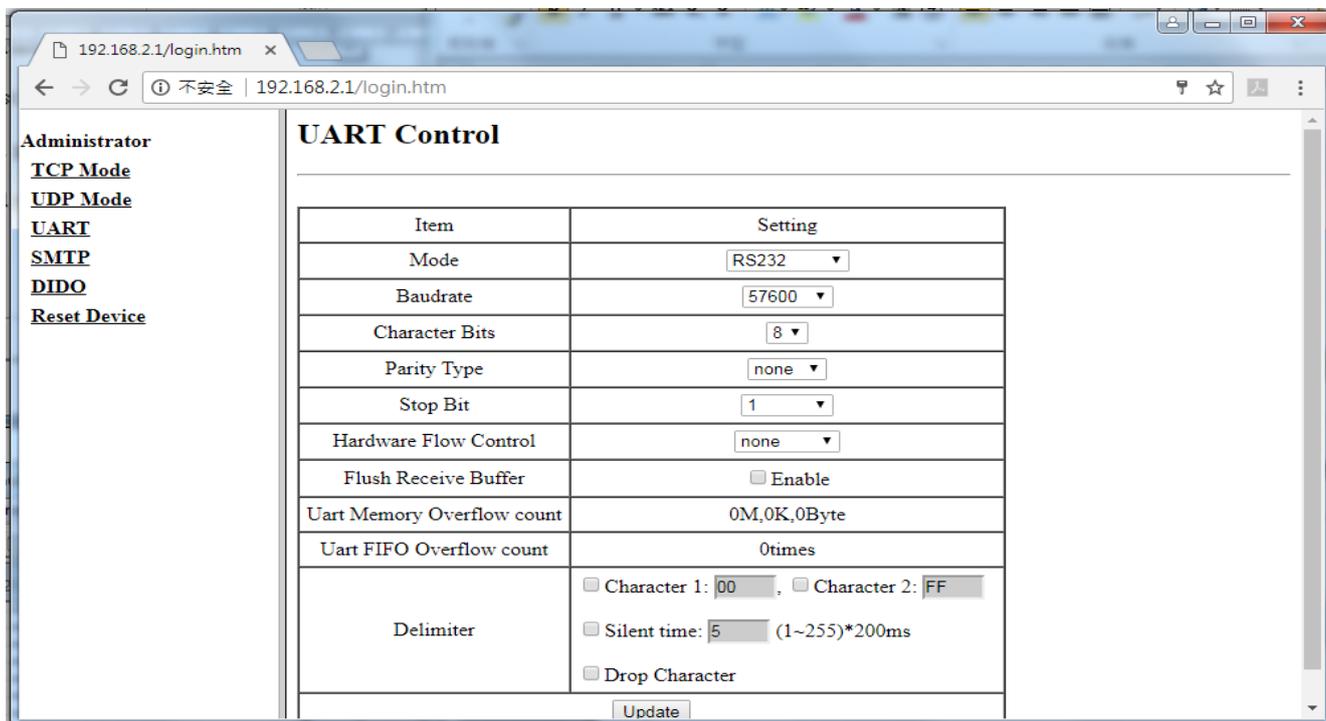
Enter the IP address of the remote device.

- **Remote Address Port:**

Enter the remote port number of the remote device.

UART

The page shows the converter serial Port configuration.



The page includes the following configurable data:

- **Mode:**

From the drop-down menu, select the serial port mode:

- RS-232
- RS-422
- RS-485
- RS-485_4W

- **Baud rate:**

The unit and attached serial device, such as a modem, must agree on a speed or baud rate to use for the serial connection, valid baud rates.

- **Character Bits:**

Indicate the number of the bits in a transmitted data package. The allowed value is 5,6,7,8

The default is "8" .

- **Parity Type:**

Check for the parity type. The default value is "none" .

- **Stop Bit:**

The stop bit follows the data and parity bits in serial communication. It indicates the end of transmission. The default is "1" .

- **Hardware Flow Control:**

Flow control manages data flow between devices in a network to ensure it is processed efficiently. Too much data arriving before a device is prepared to manage it causes lost or retransmitted data.

XON/XOFF, RTS/CTS, DTR/DSR

The default value is "none" .

- **Delimiter:**

Character The **Character 1** and **Character 2** allow the use to enter two ASCII character (in hex format) that delimit the beginning and end of a message. When a message with both there delimiters is received at the serial port, the data contained in the serial buffer is paced in an Ethernet packet and sent out the Ethernet port.

Silent Time: For the defined period of time passed, the serial port stops data transmission and close the connection to remote host.

Drop Character: If the incoming data contain character 1 or character 2, the packet will be dropped

The default value is "disable"

SMTP

SMTP is part of the application layer of the TCP/IP protocol. Using a process called "store and forward," SMTP moves your email on and across networks.

The page includes the following configurable data:

- **Enable SMTP:**

Setup SMTP Enable or disable. The factory default is "disable" .

- **SMTP server address:**

Setup SMTP server address.

- **SMTP Login Information:**

SMTP login information.

- **Mail to:**

Setup the mail recipient.

- **Mail from:**

Setup the mail sender.

- **GPIO Warning:**

Set GPIO status to send with SMTP.

DIDO

AMC-5810 provides DI/DO to user. The following page is DI/DO status.

The screenshot shows a web browser window at 192.168.2.1/login.htm. The page title is "DIDO". On the left, there is a navigation menu with the following items: Administrator, TCP Mode, UDP Mode, UART, SMTP, DIDO, and Reset Device. The main content area contains a table with the following data:

Port	5000			Submit
PIN	Name	Value(0 or 1)	Direction	
1	DI_0	1	IN	
2	DI_1	1	IN	
3	DI_2	1	IN	
4	DO_0	<input type="text" value="1"/>	OUT	
5	DO_1	<input type="text" value="1"/>	OUT	
6	DO_2	<input type="text" value="1"/>	OUT	

Below the table, there are two buttons: "Update" and "Refresh".

The page includes the following configurable data:

- **Port:**

AMC-5810 uses the TCP port to listen DI/DO Configuration. The factory default value is 5000.

- **DI:**

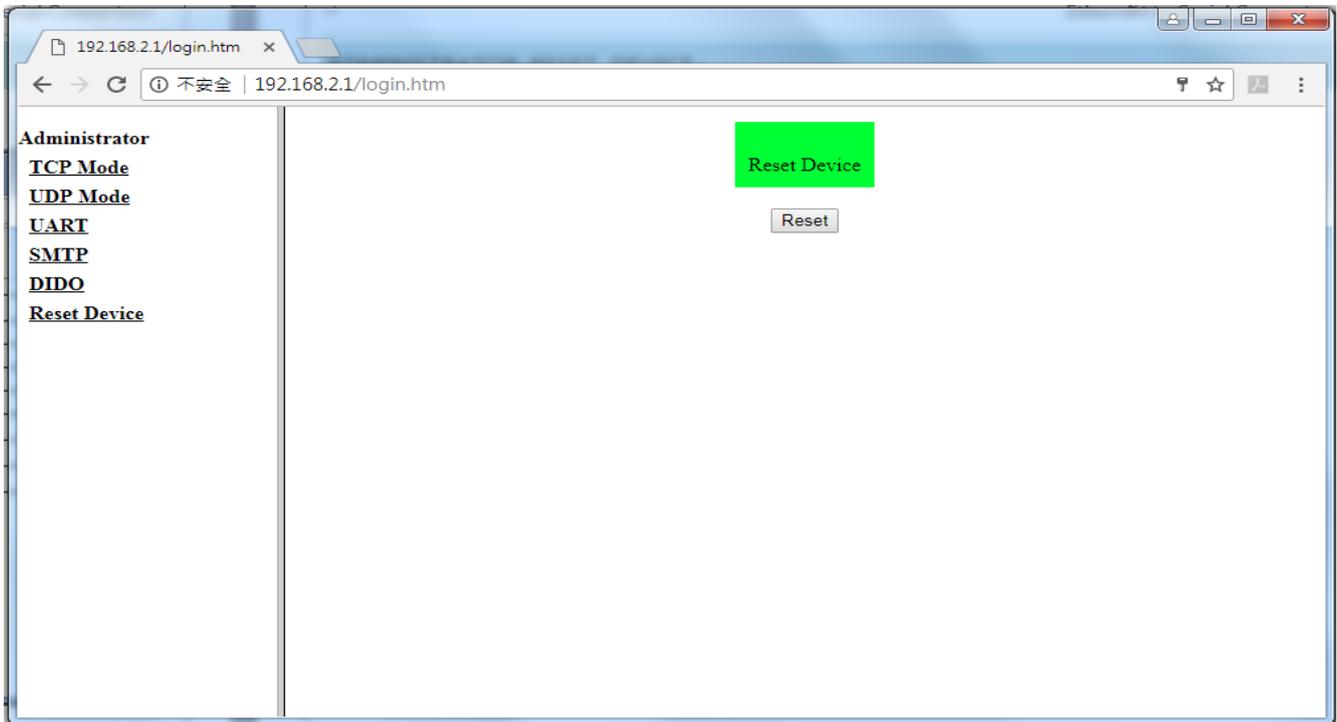
Show Current DI status of the device.

- **DO:**

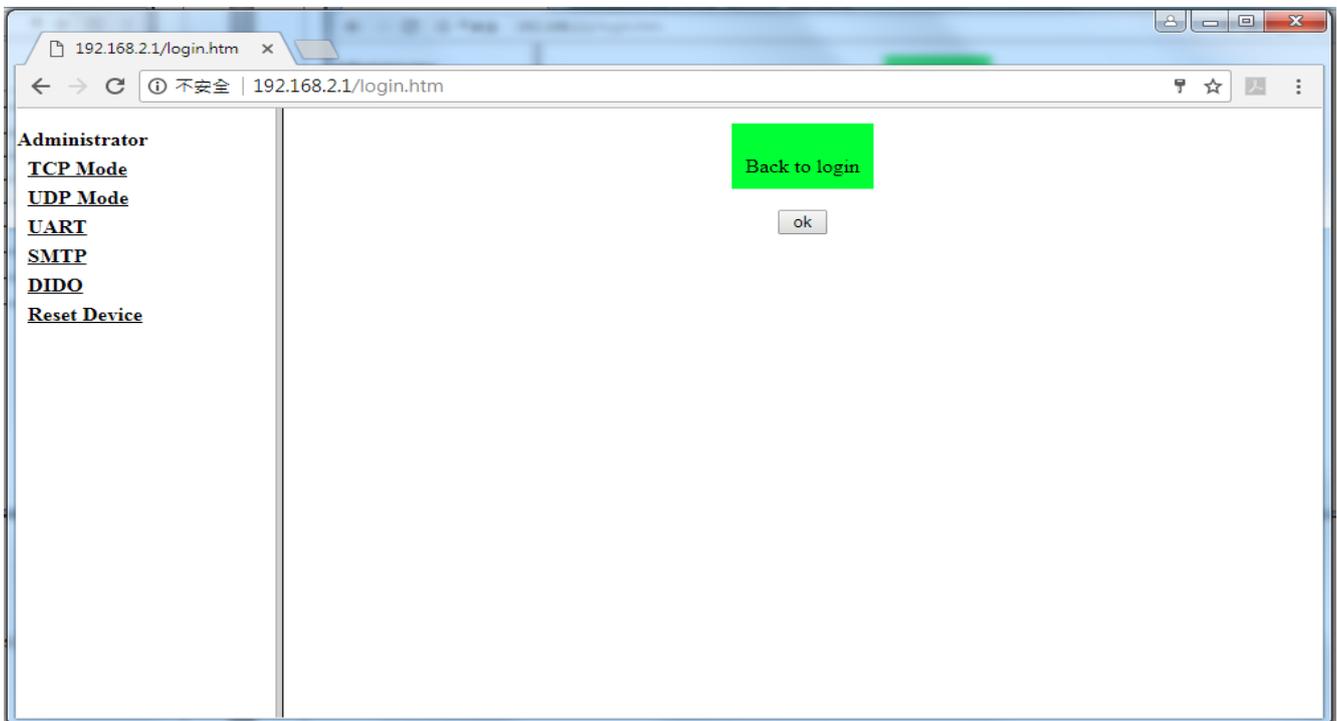
Set DO status of the device.

RESET DEVICE

This page is a reboot page.



Press **Reset** button to reboot device. After reboot back to login page.



SOFTWARE VCOM UTILITY

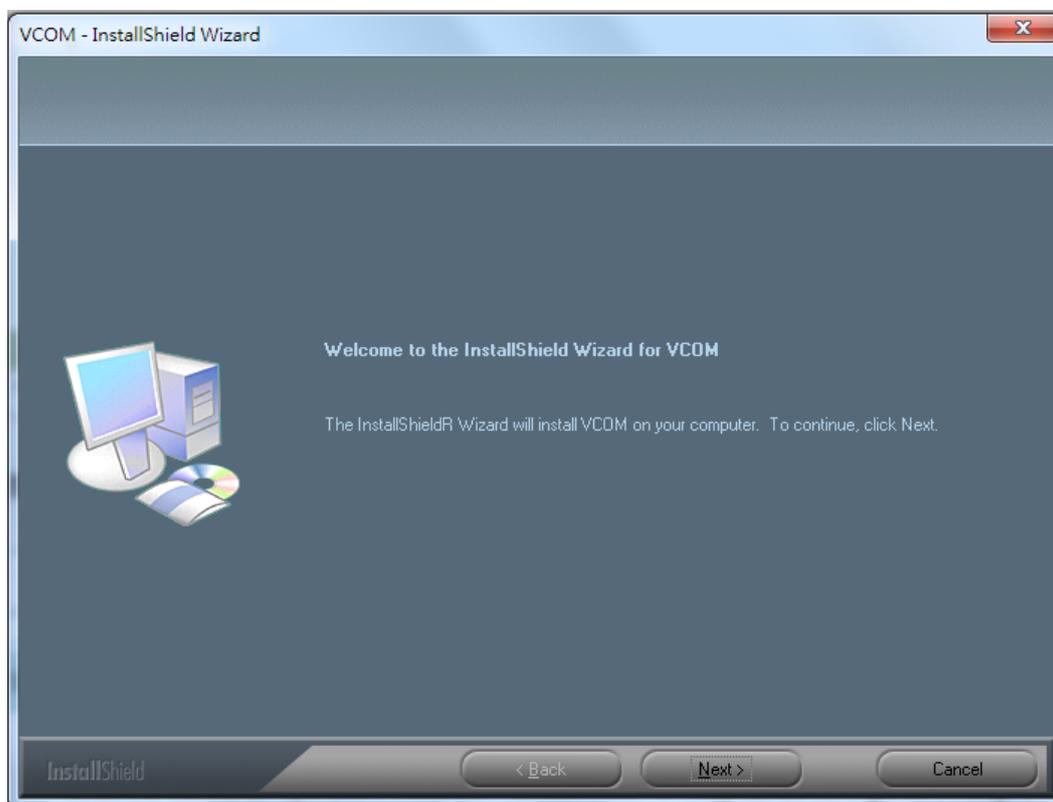
The AMC-5810 Ethernet to Serial Converter provides software for Converter smart function configuration when the Converter operation mode on "Virtual COM" . - They can be configured through the Console. Two function groups are provide to easy used, can search device and create virtual COM to view as the console port.

This program can search AMC-5810 Series devices; it will show information of the device. And user can use VCOM function creates virtual com port for user using. Users can send data by virtual com port, and virtual com port will transfer data to Ethernet by windows socket. While VCOM got data from Ethernet, it will transfer data to virtual com port by virtual com component.

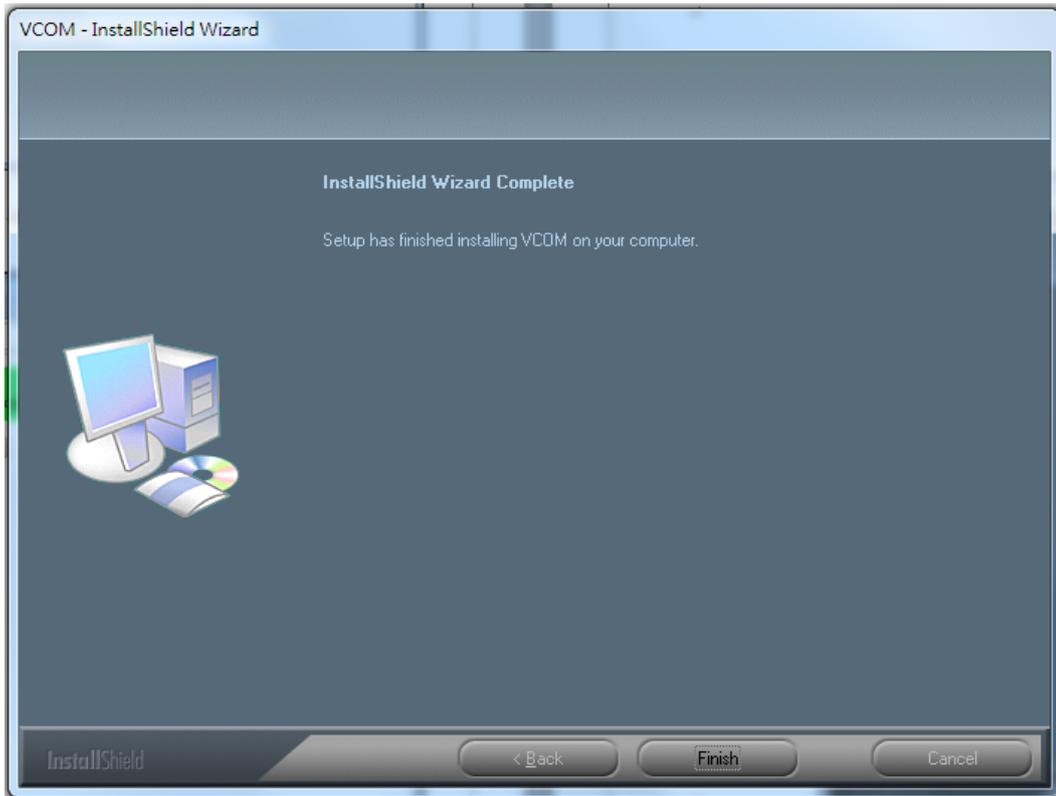
The VCOM is an integrated software suite that bundles Device Server Administrator and IP Serial Library, and provides something you need to monitor your AMC-5810 from a remote location.

Installing the VCOM Utility

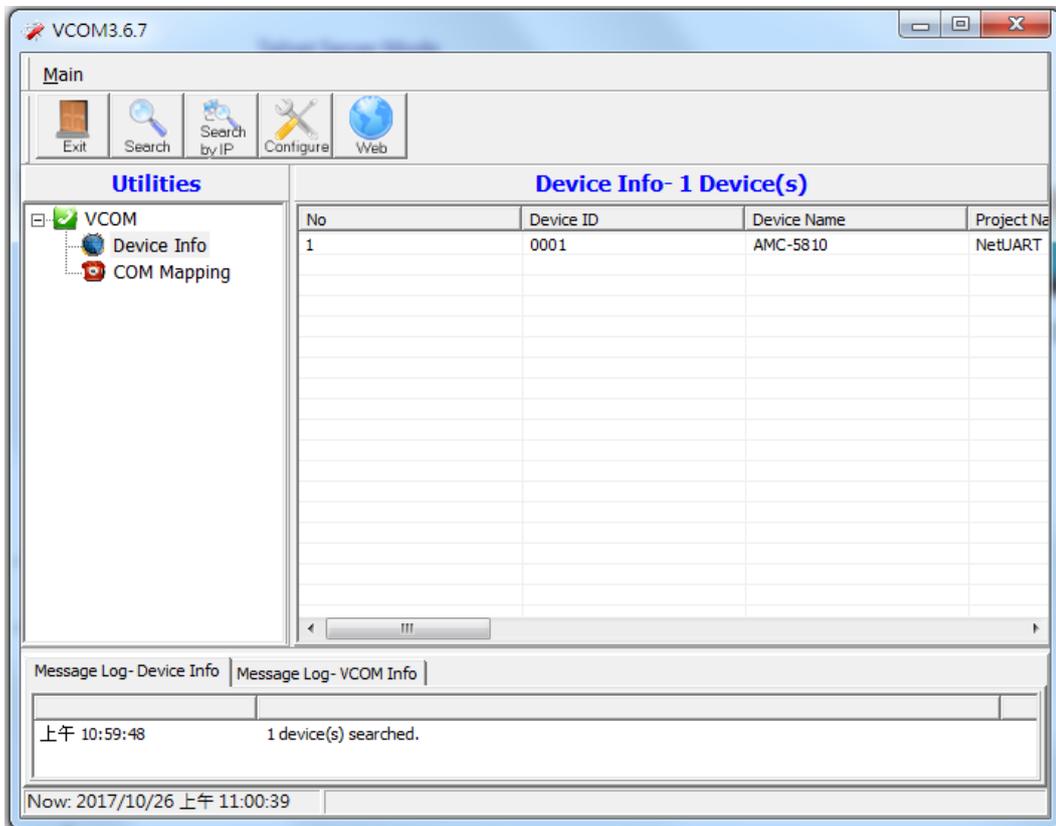
1. Once the Setup program starts running, click "**Next**" when the Welcome window opens to proceed with the installation.



- Click Finish to complete.



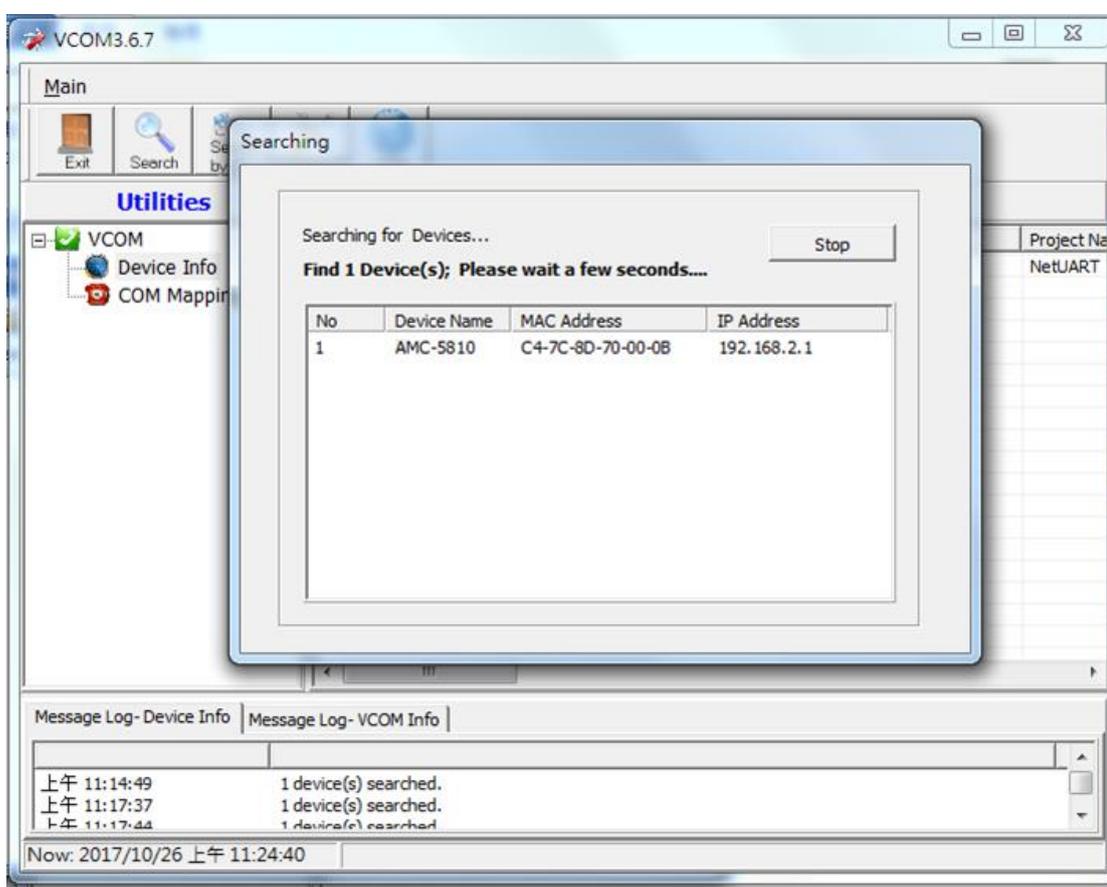
- To run the VCOM utility on the computer.



Search the Device

Click the Search Device button to find the AMC-5810. It will show the AMC-5810 device name, project name, MAC address, IP address, Sub Mask, Gateway and the connect port number.

1. Click the shortcut of VCOM on the desktop to run the VCOM program.
2. Click "Search" button in Search Device tab. If any AMC-5810 series device is on the LAN, it will show the device name in the tree report. While user clicks the device name, it will show device information in the list report.

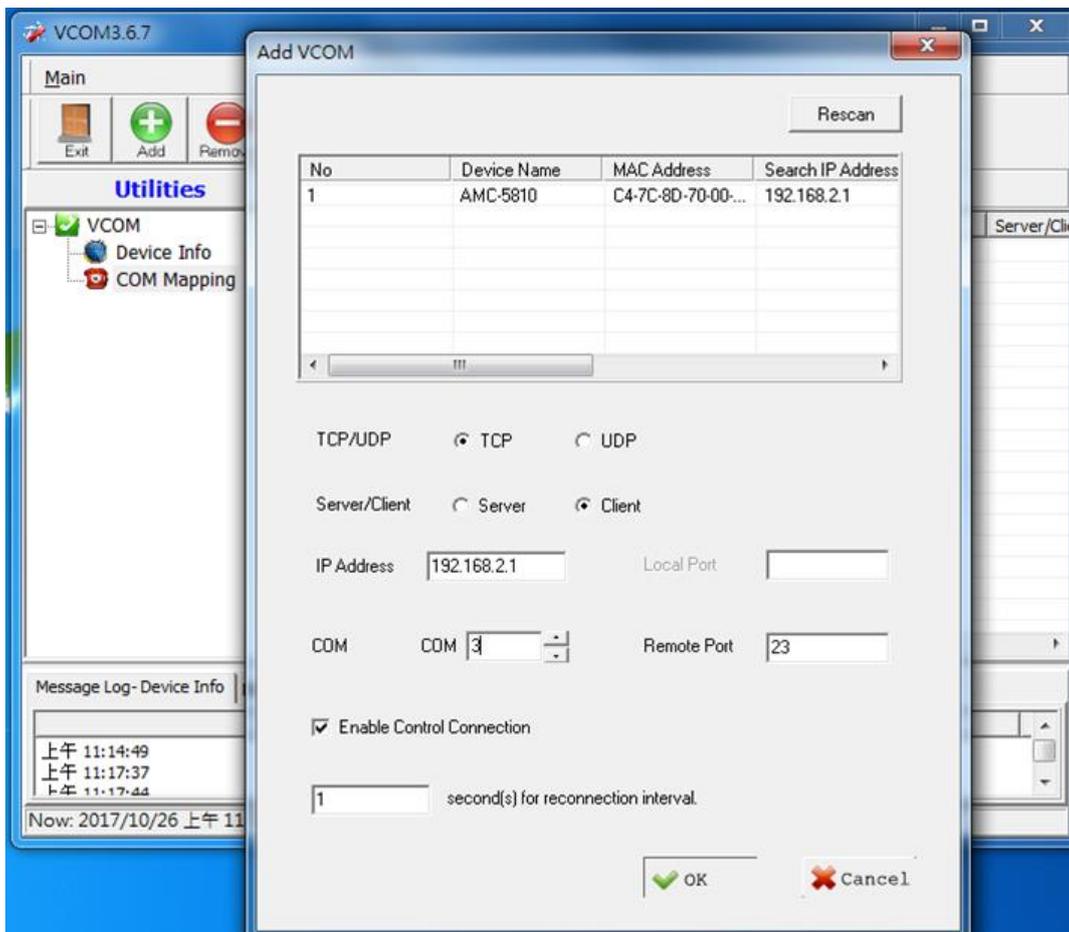


Virtual COM

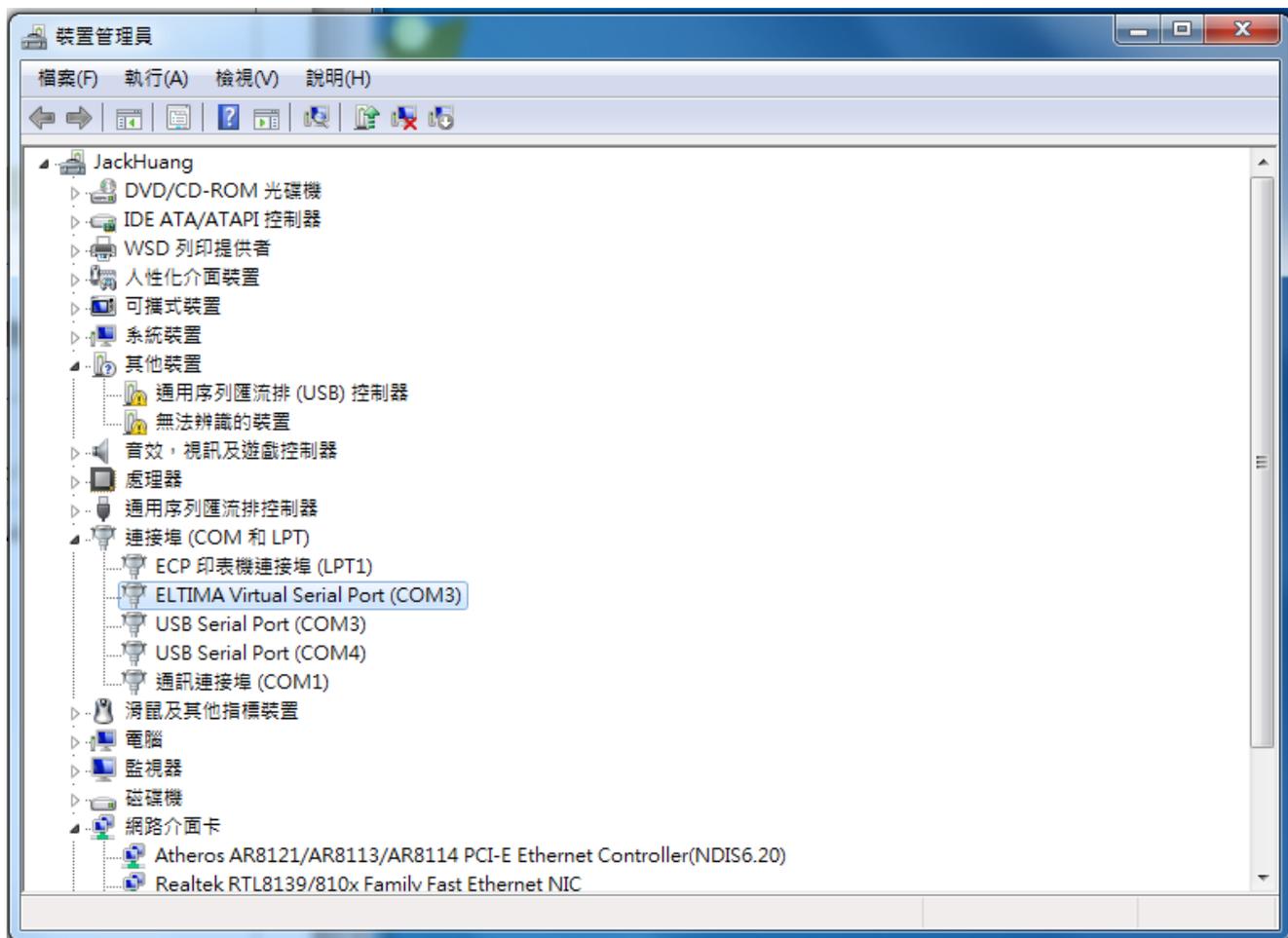
This function should be set the AMC-5810 operation mode to "Virtual COM" on the Web.

Choose to create port like below:

1. Click "COM Mapping".
2. Press "Add" button go to Add VCOM page.
3. Select device.
4. Setup configuration of "Virtual COM".
5. Click "OK" button to create new virtual com port and establish telnet connection.



6. Once the Virtual COM Port- COM3 connection is established, from the Windows Device Manager, a COM Port is added to the device list.

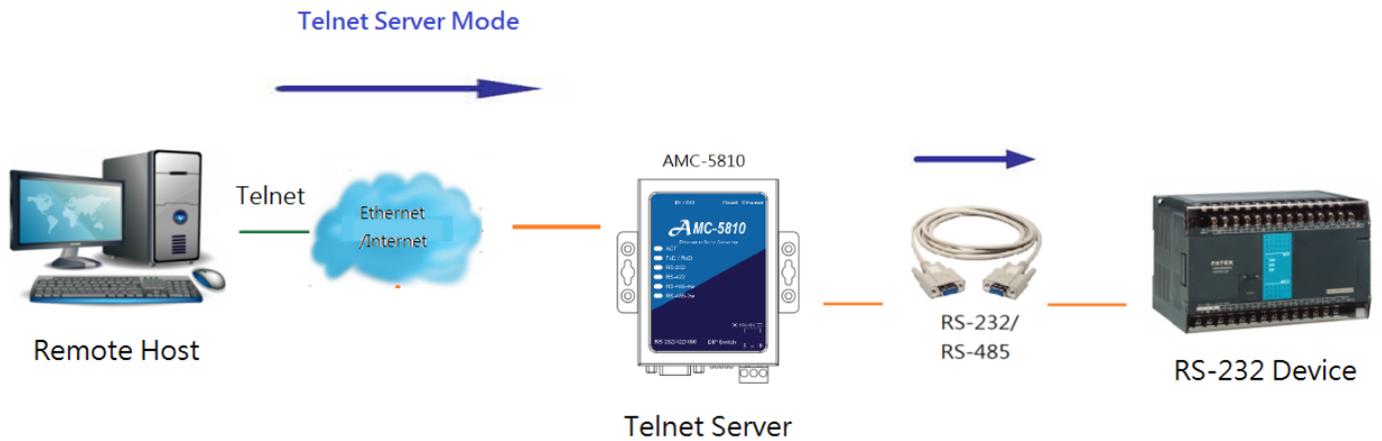


- **Note**

AMC-5810 Supported VCOM 3.6 utility for Windows2000/XP/2003/2008/Vista/Windows 7 (X86 /X64)
(using Eltima VSP Component)

EXAMPLE: USE PUTTY TO CONNECTION TCP/IP

Putty is a program that you can use to connect to other computers, Telnet sites, online services, and host computers, using your modem, a null modem cable, a Console cable or Ethernet connection.

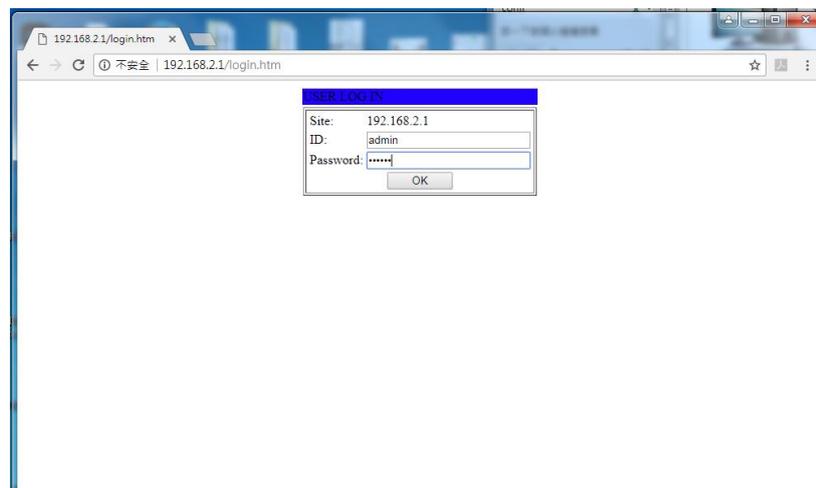


The users want to use the TCP Server mode to connect to a Ethernet Switch via Putty, Winsoc mode

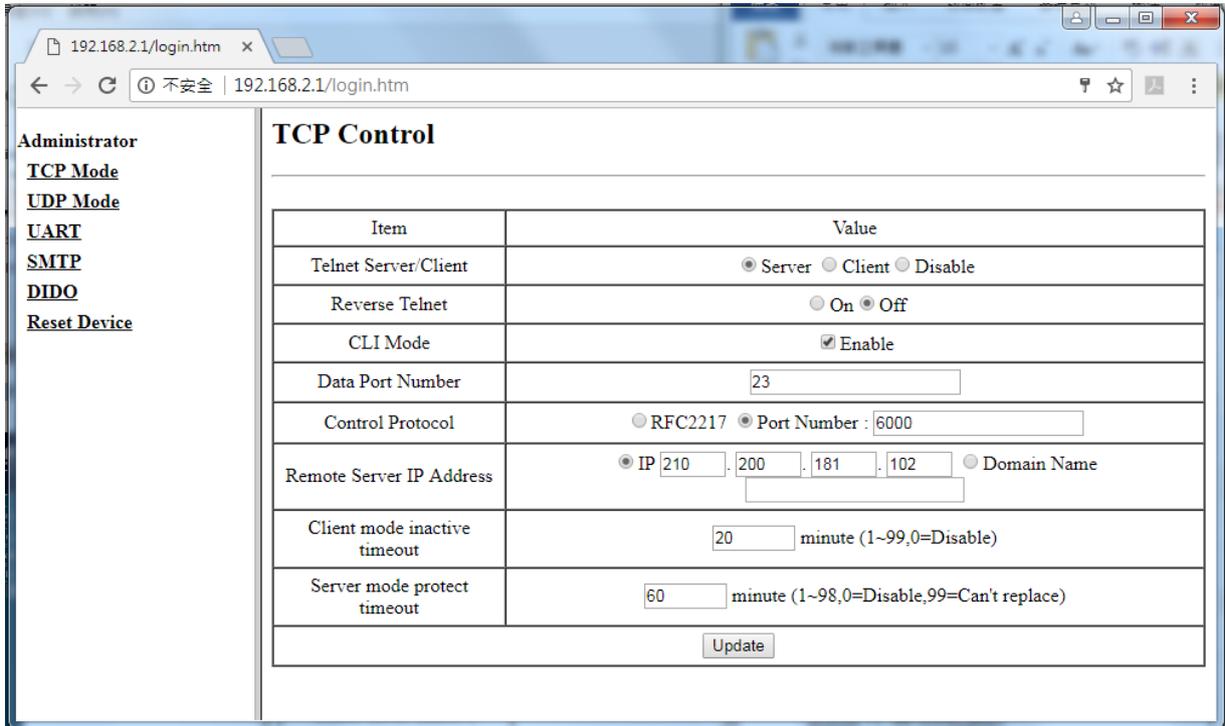
1. Setup TCP Mode and UART Mode of AMC-5810
2. Putty set up a new connection with the TCP/IP Winsoc

Setup TCP Mode and UART Mode of AMC-5810

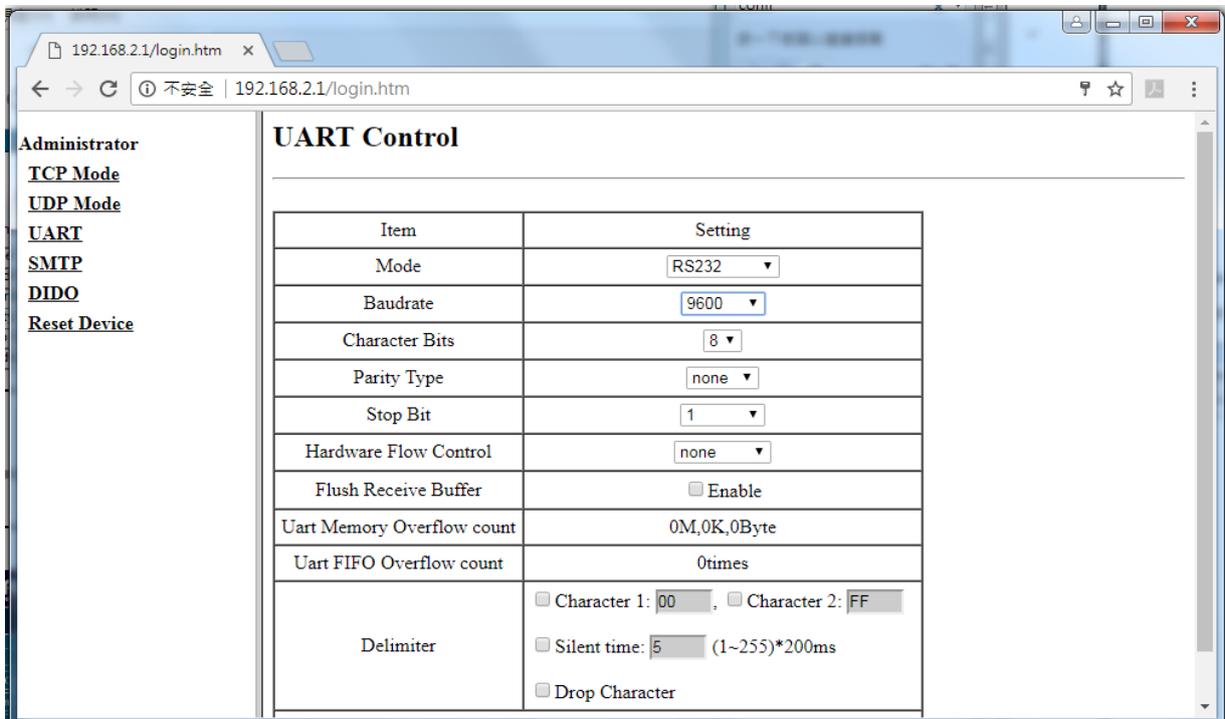
1. Login to AMC-5810 WEB.



- From the WEB interface, set the TCP mode of AMC-5810 to "TCP Server", CLI Mode to "Enable" and set the TCP Port Number to "23".

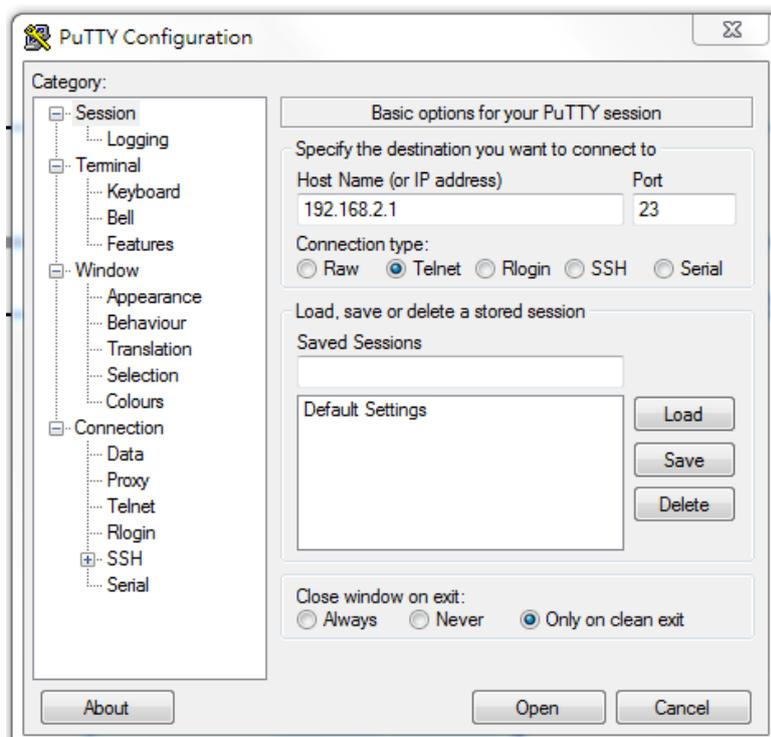


- Set the UART Configuration of AMC-5810 as below:

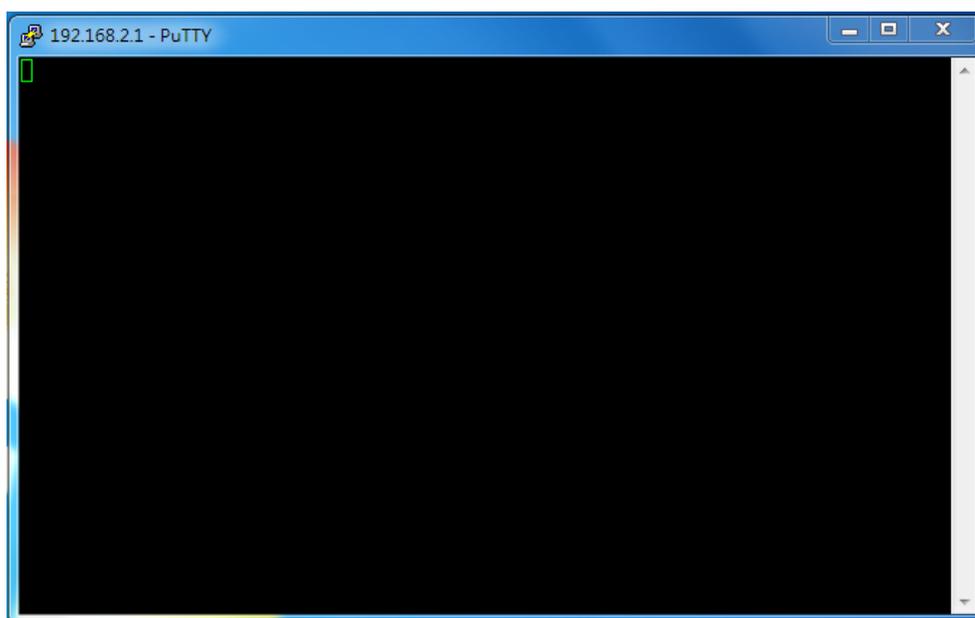


Putty set up a new connection with the TCP/IP Winsock

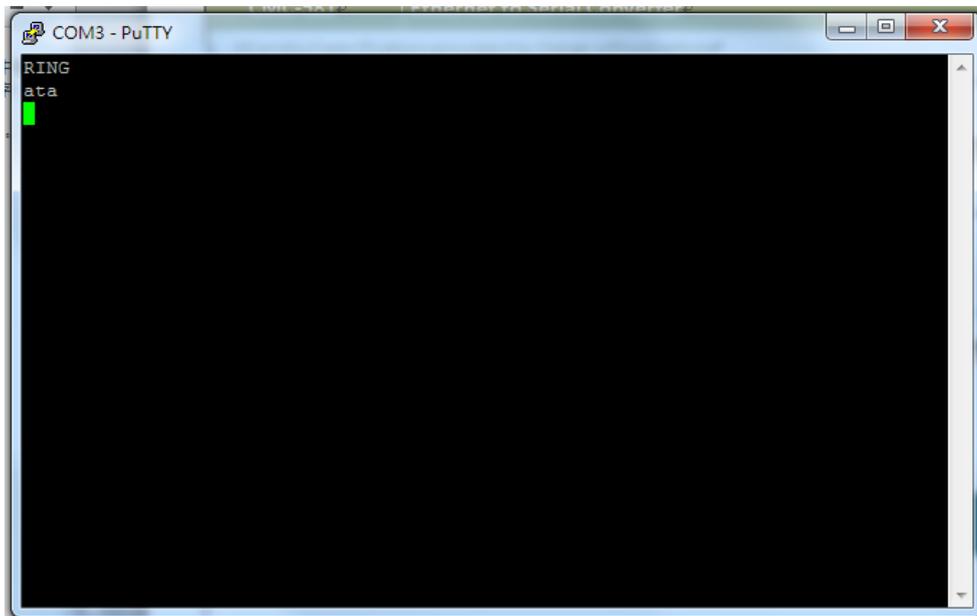
1. Open Putty.
2. Enter the AMC-5810 IP address (192.168.2.1) Port (23).
3. Click Open to open Putty connect AMC-5810.



4. Then go to Putty telnet screen.



5. When connect to AMC-5810 server, the UART port will receive a message "RING" .
6. At this point, then Serial port input ata, into the CLI Mode.(8 seconds time out)

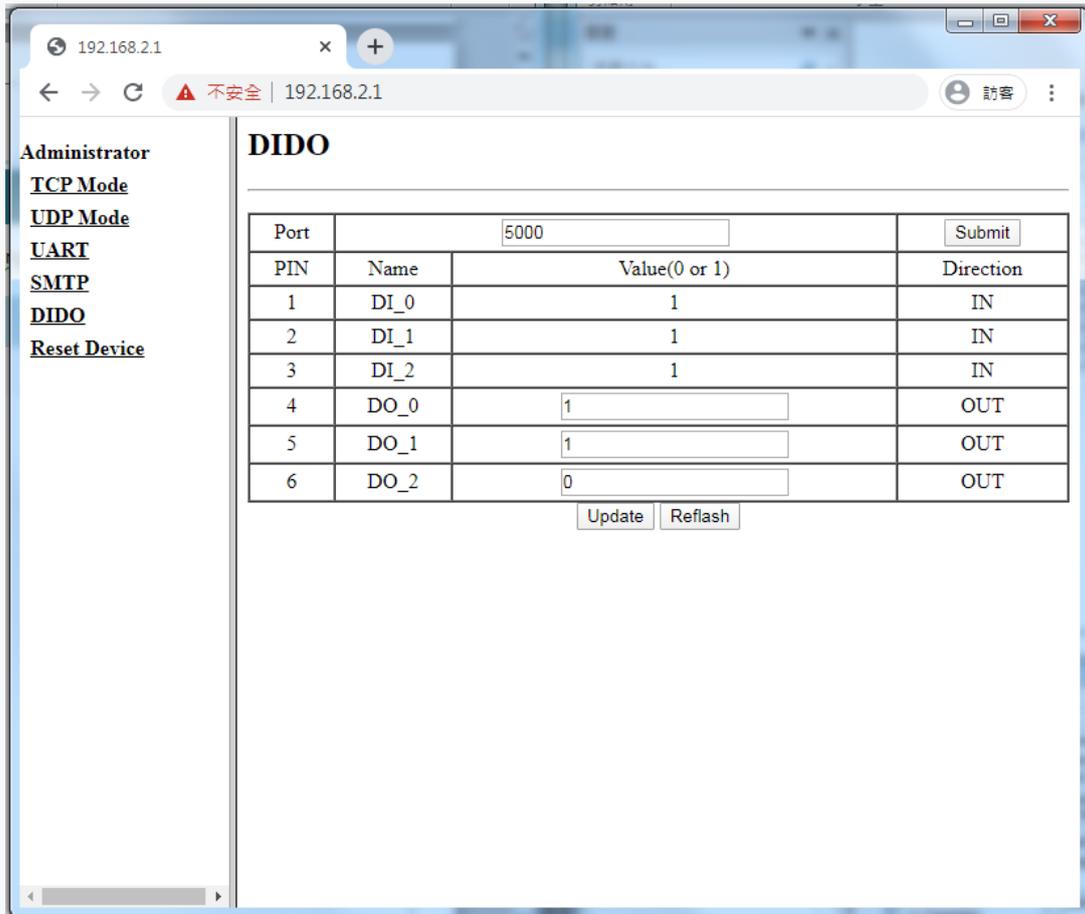


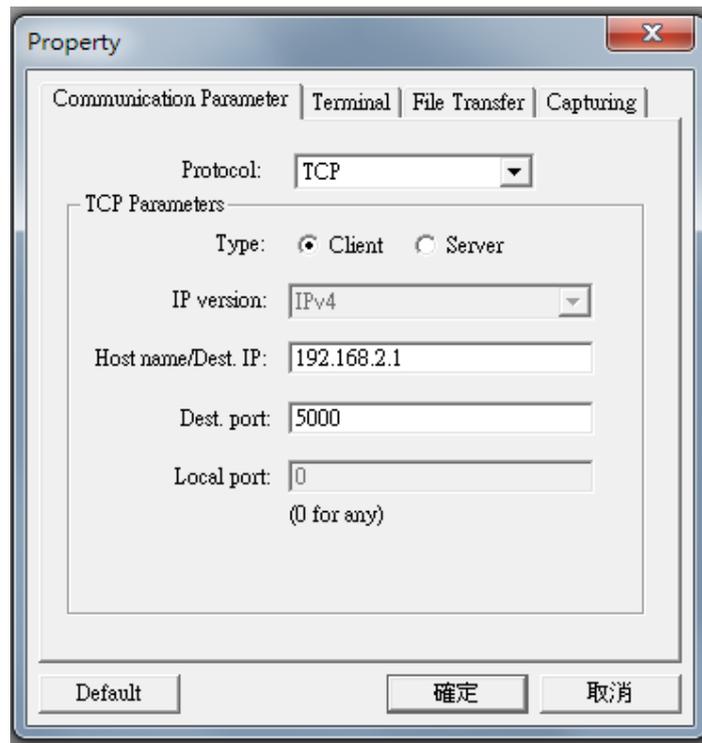
CHAPTER 6 CLI (COMMAND LINE)MODE

Users can use api commands to remote the AMC-5810. The following introduce how to use.

GET AND SET DIO

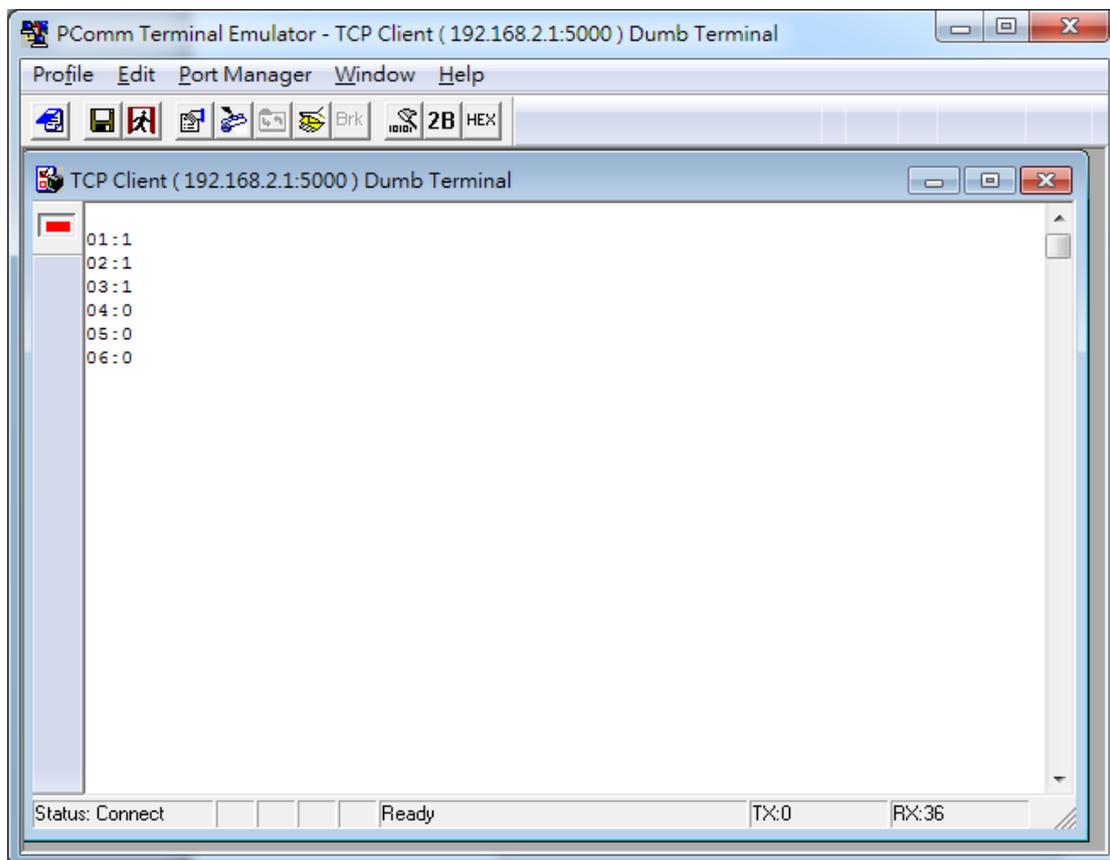
1. Open terminal program telnet 192.168.2.1 port 5000 (default)



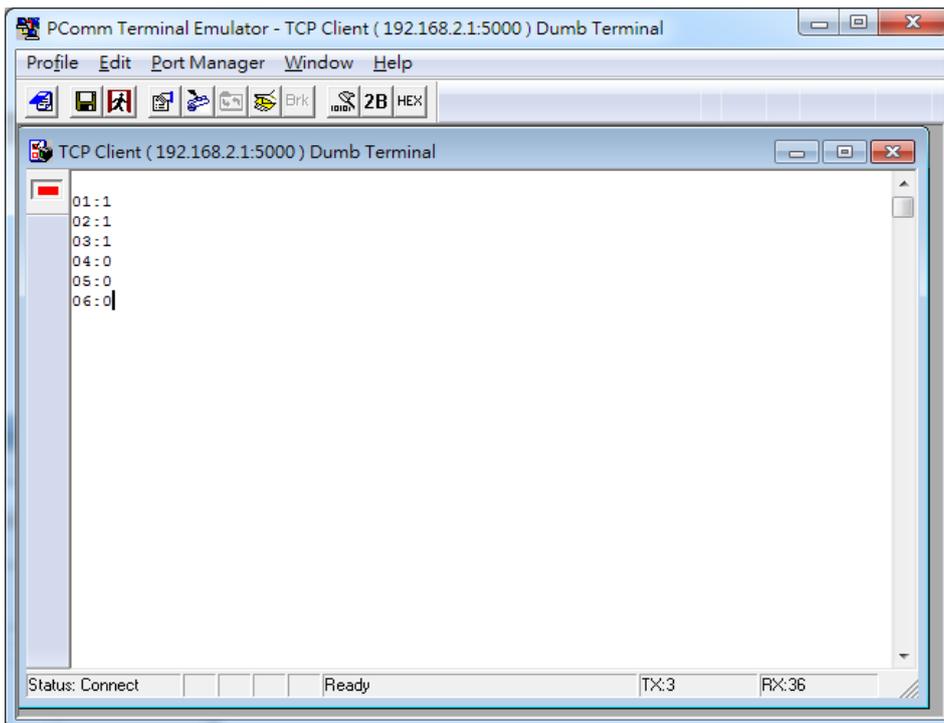
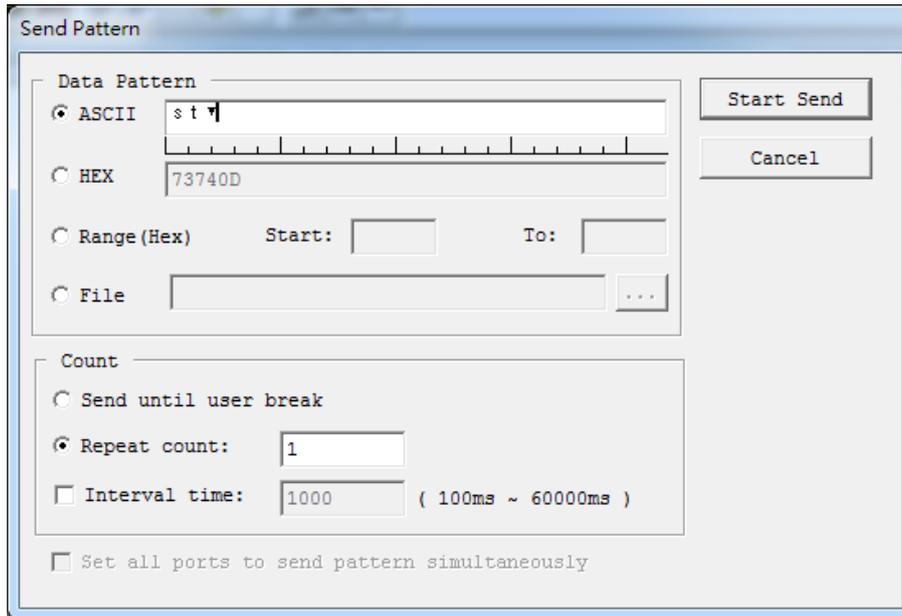


AMC-5810' s DI0~DI2 → Pin1~3

AMC-5810' s DO0~DO2 → Pin4~6

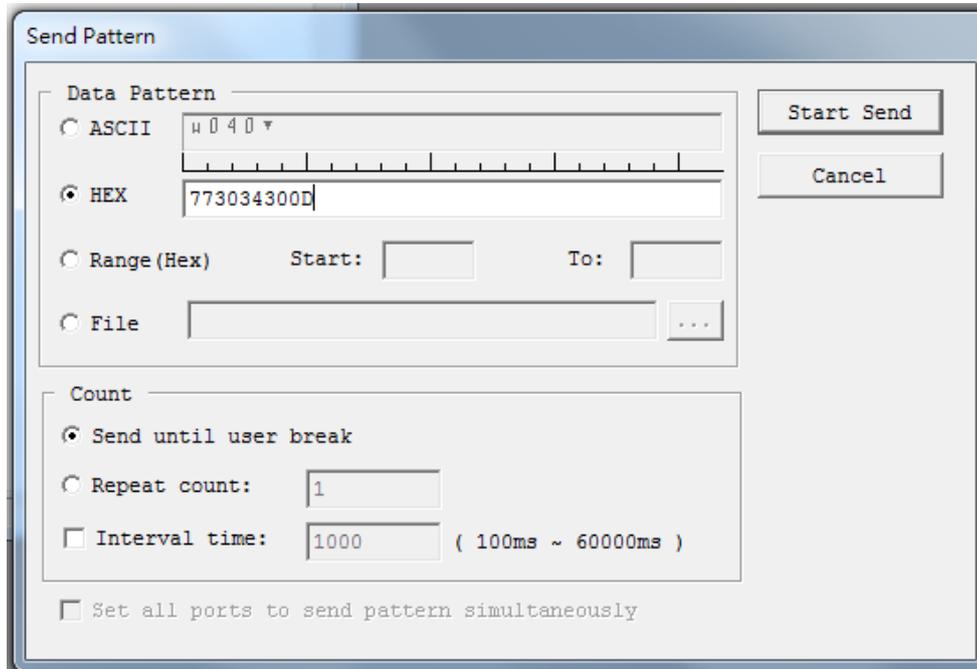


GET DIO COMMAND



● Functions:	Get DIO
● Command:	'st' + 0x0d → HEX: 73740D
● Return:	Pin= 1~6 → AMC-5810 DI0~2, DO0~2 Status = 1: high, 0: low

SET DO COMMAND



● Functions:	Set DO
● Command:	'w0' +Pin+State+0x0d → HEX: 773034300D
● Example:	<p>AMC-5810' s DO0=Low →Pin 4 low → HEX: 773034300D</p> <p>AMC-5810' s DO0=High →Pin 4 high → HEX: 773034310D</p> <p>AMC-5810' s DO1=Low →Pin 5 low → HEX: 773035300D</p> <p>AMC-5810' s DO1=High →Pin 5 high → HEX: 773035310D</p> <p>AMC-5810' s DO2=Low →Pin 6 low → HEX: 773036300D</p> <p>AMC-5810' s DO2=High →Pin 6 high → HEX: 773036310D</p>
● Return:	<p>Pin= 1~6 →AMC-5810 DI0~2, DO0~2</p> <p>Status = 1: high, 0: low</p>

APPENDIX