



User's Manual

IP-based 16-port Metered Power Distribution Unit

► IPM-16120



Copyright

Copyright © 2016 by PLANET Technology Corp. All rights reserved. No part of this publication may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, electronic, mechanical, magnetic, optical, chemical, manual or otherwise, without the prior written permission of PLANET.

PLANET makes no representations or warranties, either expressed or implied, with respect to the contents hereof and specifically disclaims any warranties, merchantability or fitness for any particular purpose. Any software described in this manual is sold or licensed "as is". Should the programs prove defective following their purchase, the buyer (and not PLANET, its distributor, or its dealer) assumes the entire cost of all necessary servicing, repair, and any incidental or consequential damages resulting from any defect in the software. Further, PLANET reserves the right to revise this publication and to make changes from time to time in the contents hereof without obligation to notify any person of such revision or changes.

All brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

Federal Communication Commission Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of 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:

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

FCC Caution

To assure continued compliance, use only shielded interface cables when connecting to computer or peripheral devices. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

Federal Communication Commission (FCC) Radiation Exposure Statement

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

Safety

This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

CE Mark Warning

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

WEEE Regulation



To avoid the potential effects on the environment and human health as a result of the presence of hazardous substances in electrical and electronic equipment, end users of electrical and electronic equipment should understand the meaning of the crossed-out wheeled bin symbol. Do not dispose of WEEE as unsorted municipal waste and have to collect such WEEE separately.

Revision

User's Manual of PLANET IP-based 16-port Metered Power Distribution Unit

Model: IPM-16120

Rev: 1.00 (June, 2016)

Part No. EM-IPM-16120_v1.0

Table of Contents

Chapter 1. Product Introduction.....	6
1.1 Package Contents	6
1.2 Overview	6
1.3 Features	9
1.4 Specifications	10
Chapter 2. Hardware Interface	12
2.1 Physical Descriptions	12
2.2 Installation Precautions	14
2.3 Hardware Installation.....	14
2.4 Initial Utility Installation	15
Chapter 3. Quick Setup	17
3.1 Network connection.....	17
3.2 Setup Wizard.....	17
Chapter 4. Web-based Management	21
4.1 Monitor	21
4.2 System	22
4.2.1 Network setting	22
4.2.2 Email Server.....	24
4.2.3 SMS Server.....	25
4.2.4 SNMP.....	26
4.2.5 Syslog	28
4.2.6 Peripheral Parameters	29
4.2.7 Other	30
4.3 Firewall	31
4.3.1 IP Filter.....	31
4.3.2 MAC filter	32
4.4 Account.....	32
4.4.1 Basic Info	33
4.4.2 Email	34
4.4.3 SMS	34
4.5 Time.....	36
4.6 Chart.....	37
4.7 Event	38
4.8 Upgrade.....	38

Appendix A: Reset to Default via Navigation Button	40
Appendix B: HTTP Message API Example	41

Chapter 1 Product Introduction

1.1 Package Contents

The package should contain the following:

- Quick Installation Guide x 1



If any of the above items are missing, please contact your seller immediately.

1.2 Overview

High Voltage Power Distribution Unit with Digital Load Meter

PLANET IPM-16120 is a 16-port IP Power Management device that provides premium power protection for your professional workstations and connected devices. With the innovative IP-based technology, PLANET has made the traditional power management equipment into true networking devices. The unit comes with a digital load meter to enable the PDU's load to be monitored on-site.



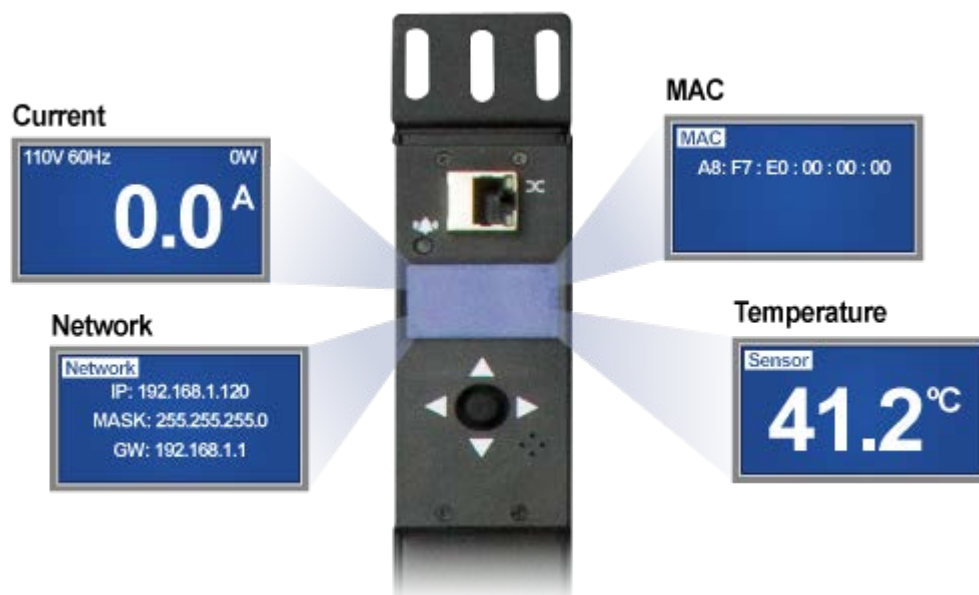
Vertical Mounting

Any devices can be easily mounted vertically in racks or enclosures and occupy zero U of valuable rack space, which allows more equipment in the rack.



Electric Current Monitored on Display

The aggregate current draw per rack PDU is displayed on the unit via a digital display. The local digital display helps installers avoid overloaded circuits by providing a visible warning when the current draw is close to the maximum amperage draw of the strip.



Remote Management Capabilities

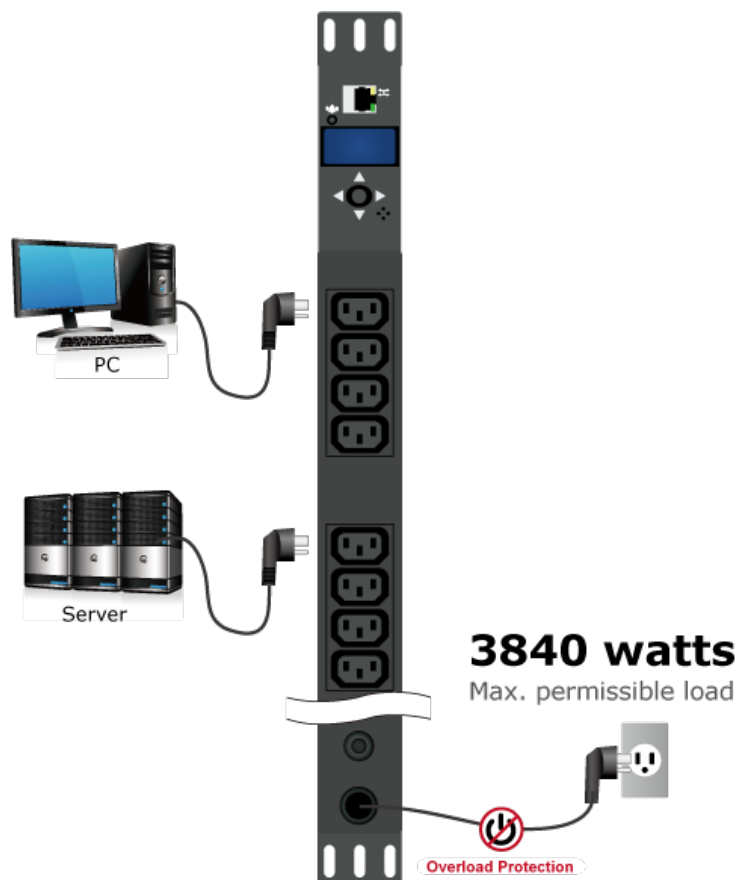
Full-featured network management interfaces provide standards-based management via Web, SNMP

and Telnet. They allow users to access, configure, and manage units from remote locations to save valuable time.



Overload Protection

16-amp circuit breaker prevents dangerous circuit overloads that could damage equipment. The PDU features a built-in circuit breaker and reset switch, ensuring dependable performance of vital equipment.



1.3 Features

➤ Hardware

- Zero U rack-mount size design
- IEC outlet models
- 16 power outlets that support real-time current image monitoring
- 10ft (3m) power cord
- Hot-swap IP-module without power shutdown
- LCD panel displays current, max. alarm, device temperature and network information

➤ Power Distribution

- Maximum Amps/Inlet: IEC 16A/1 inlet
- Maximum Amps for 16 Outlets: IEC 16A for 16 outlets
- Full Frequency Range: 50~60Hz

➤ Remote Access

- Remote power control via TCP/IP and a built-in 10/100Mbps Ethernet port
- Multi browsers support (IE, Google, Firefox, Safari, Opera, Netscape)

➤ Management

- Provides Install Wizard to ease users' setting of parameters
- Events notification by sending pop-up message, trap or e-mail
- Supports Management Information Base (MIB) files for SNMP
- 24-hour power consumption and device temperature monitoring
- Sets over-current watchdog for power outlet

➤ Security

- Web page supports 1024-bit SSL security encryption transmission
- Supports Secure Socket Layer V3 and Secure Shell V1 protocols
- Administrator and multiple users with password protection for double-layer security
- IP Filtering -- Address-specific IP security masks to prevent unauthorized access

1.4 Specifications

Product	IPM-16120	
Hardware Specifications		
Output Power Port	16	
Input Power Port	1	
Buzzer	1	
Breaker	1 x 16A	
Network Connector	1 RJ45 port for 10/100BASE-TX	
Button	Five-sided button	
LED	Alarm Lights remaining lit: Alarm has occurred Slow flashing: There was current overloading	
Power Distribution		
	Input Power	Output Power
Voltage	100~240V	
Frequency	50~60Hz	
Connection	1 x IEC320 C20	16 x IEC320 C13
Maximum Current	16A	
Maximum Line Current	-	10A
Cord Length	3 meters	-
Management		
User Account	General/Manage/Administrator	
Management Utility	Web browser, SNMP software, Windows base utility, Telnet	
Security	IP filter/MAC filter/Secure 128-bit SSL encryption	
Standards Conformance		
Computer Interface	IEEE 802.3 10BASE-T IEEE 802.3u 10/100BASE-TX	
Regulatory Compliance	CE, FCC	

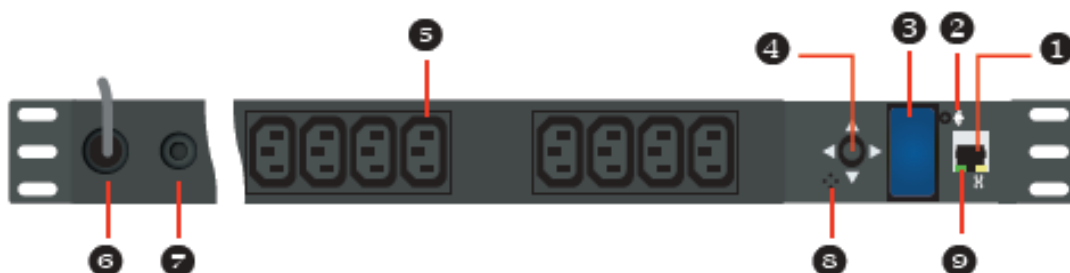
System Unit	
Operating Temperature	-5 ~ 45 degrees C
Operating Humidity	5 ~ 95%
Operating Altitude	0 ~ 4500 meters
Dimensions (W x D x H)	748 x 43 x 43 mm
Weight	1.7kg
Installation	Zero U

Chapter 2 Hardware Interface

2.1 Physical Descriptions

Dimensions (W x D x H)	748 x 43 x 43 mm
Weight	1.7kg (gross weight)

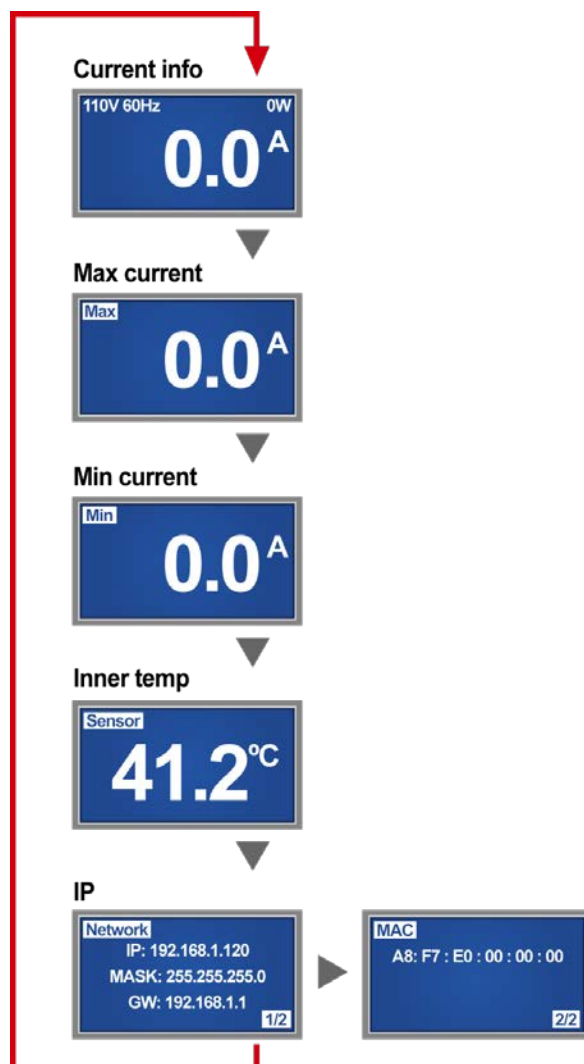
Front Panel



1	RJ45 Port	Enable user to configure the IP Metered PDU through a LAN or WAN.	
2	Alarm	Lights remaining lit: Alarm has occurred. Slow flashing: There was current overloading.	
3	LCD Panel	Display current information, max. alarm current, device temperature and network information.	
4	Five-sided Button	Provides LCD switching panel info and setting parameters. Please see below the Panel Operation for more understanding.	
5	Power Outlet	Connect a device to each power outlet to supply power to it. Note: The max. output current is 16 amps.	
6	Power Inlet	Device power lead.	
7	Circuit Breaker Protection	Prevents power overload and damage to devices when circuit breaker protection trips. Press the button on the breaker protection to return to normal operation after eliminating abnormal device power supply.	
8	Buzzer	Buzzer will make a beep sound when alarm happens.	
9	RJ45 LED	Link (Green):	The port is successfully established.
		Network Speed (Yellow):	The port is running at a speed of 100Mbps.
		Off:	The port is running at a speed of 10Mbps.

Panel Operation

The first mode of LCD is total current, switching with the **five-sided button** down to show the **regular sequence of current info, max. current, inner temp. and network info** as shown below:



- When the LCD menu shows current info, hold the five-sided button in the middle for 3 seconds until a long beep sounds to enter alarm current setting.
 1. For modification of alarm current, press to increase the alarm current by **0.5A** in each press.
 2. After increasing to the maximal alarm current, the value will return back to **0.5A** again, and this will cycle.
 3. Once the alarm current reaches the wanted value, hold the **five-sided button** in the middle for **3 seconds** until a "beep" sounds to end the setting.
- When the LCD shows the maximum total current record, hold the **five-sided button** in the middle for **3 seconds** until a long beep sounds to adjust it to a zero point.

- When the LCD menu shows network info, hold the **five-sided button** for **10 seconds** until two beeps sound to enter reset mode.

2.2 Installation Precautions

- Please set the maximum power-off protection allowed by power circuit as per the rated current information indicated on the device with reference to the local state rules, safety procedures and disconnector deviation.
- The unit can only be connected to a grounded power outlet or system.
- Make sure the total current output of all the connected systems is within the rated current indicated on the device.
- The test results of this device may be inaccurate giving unstable power supply.
- Avoid using this device in places near water or moisture environments.

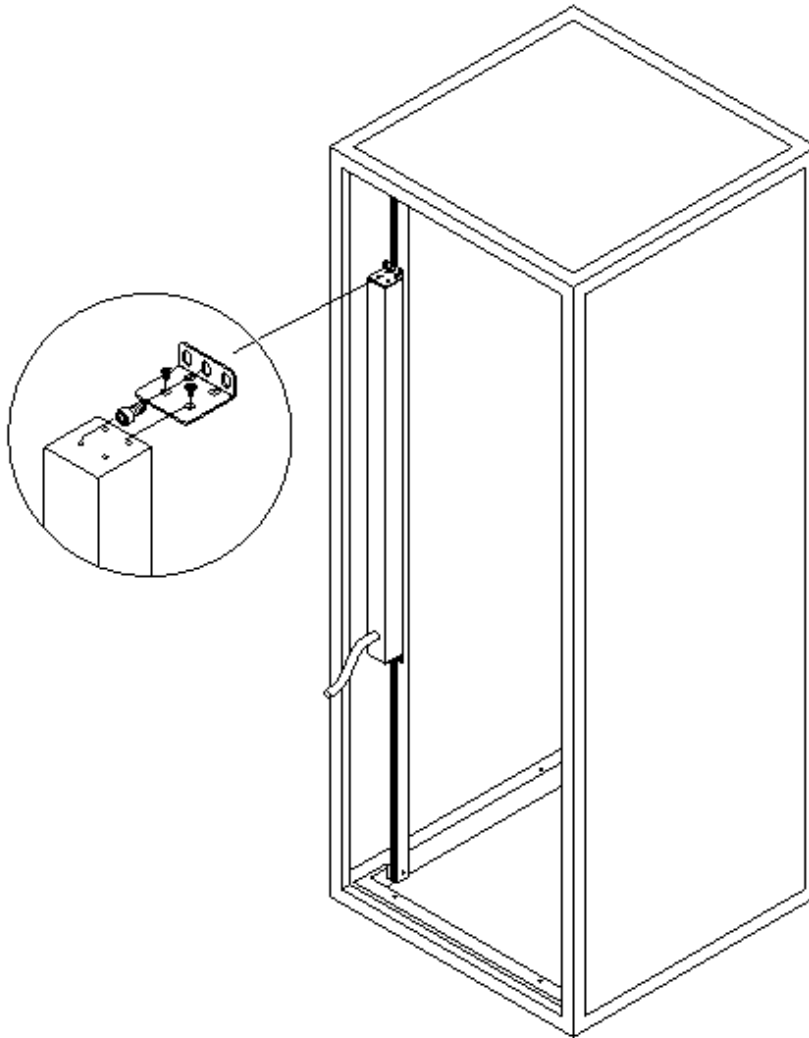


In order to avoid a fire hazard or risk of electric shock, do not expose the product to rain or moisture.

- Use the attachments/accessories specified by the manufacturer only.
- Please avoid any items or liquids entering the device because their contact with dangerous voltage points or short-circuit parts may cause a fire or electric shock.

2.3 Hardware Installation

IP Metered PDU provides standard 0U rack for the installation of devices; for the installation of the device on the rack, you can install it on the top or bottom of the rack.



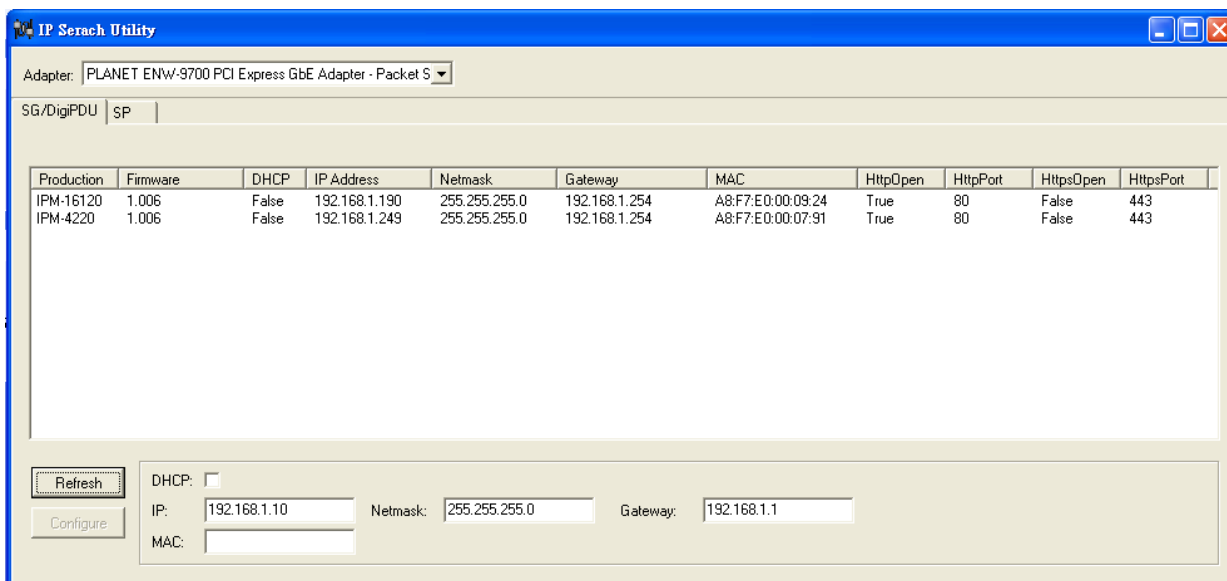
Please make sure all the units connected are powered off before the installation of the device and take other necessary precautions during the installation.

2.4 Initial Utility Installation

PLANET “**IP Search**” is a software utility used to search the IP Metered PDU product on a network quickly and with ease.

Step 1: Please download the **IP Search** tool from [PLANET Download Center](#):

Step 2: Please press the “Refresh” button to find out your IP Metered PDU.



Adapter: PLANET ENW-9700 PCI Express GbE Adapter - Packet S

SG/DigiPDU | SP

Production	Firmware	DHCP	IP Address	Netmask	Gateway	MAC	HttpOpen	HttpPort	HttpsOpen	HttpsPort
IPM-16120	1.006	False	192.168.1.190	255.255.255.0	192.168.1.254	A8:F7:E0:00:09:24	True	80	False	443
IPM-4220	1.006	False	192.168.1.249	255.255.255.0	192.168.1.254	A8:F7:E0:00:07:91	True	80	False	443

Refresh

Configure

DHCP: ☐

IP: 192.168.1.10 Netmask: 255.255.255.0 Gateway: 192.168.1.1

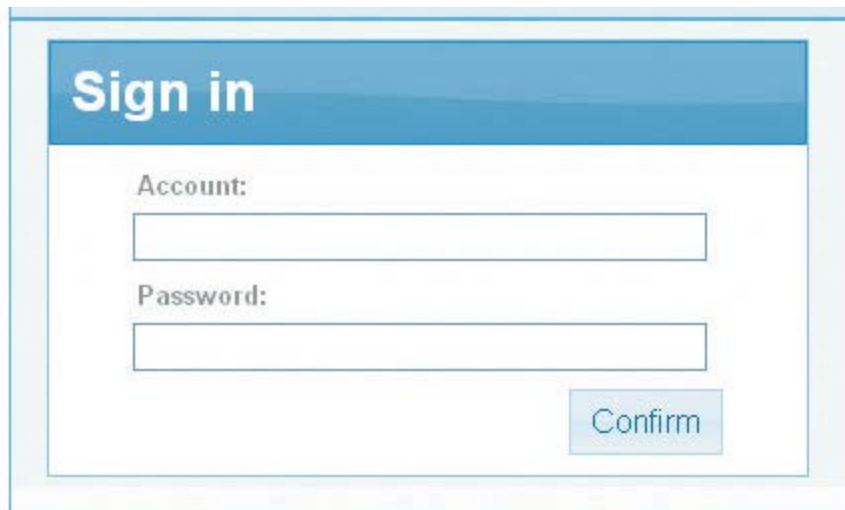
MAC:



Note

1. Before searching the IP, please make sure your PC is in the same IP segment as control gateway.
2. Do not set double IP addresses on the same LAN card.

Step 3: Enter the IP address and login to the homepage of IP Metered PDU.



Sign in

Account:

Password:

Confirm

Chapter 3 Quick Setup

In this section users can learn how to query device IP and how to set language, account password, network and time zone through daemon.

3.1 Network Connection

After the device connects to the network, IP can be acquired automatically through DHCP server (The device IP will be preset to **192.168.0.10** if there is no DHCP server.). The acquired IP can be displayed on the LCD panel or device IP can be searched by IP Search Utility.

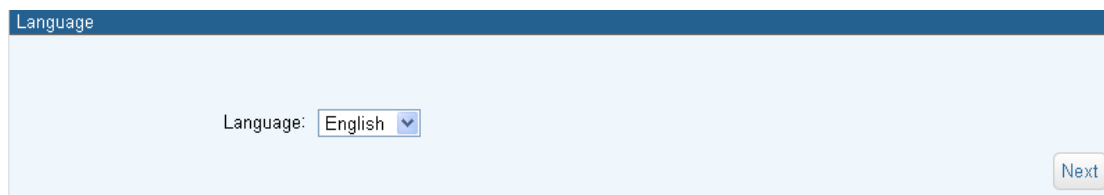
Default DHCP Client	On
Default IP Address	192.168.0.10 – if no DHCP existed in the network
Default Port	80
Default Login User Name	Set itself
Default Login Password	Set itself
Search Tools	ip_search

3.2 Setup Wizard

When you use the IPM-16120 for the first time, after it is connected to the Internet, browser would pop up Setup Wizard asking you to provide language, account, password, network and time zone.

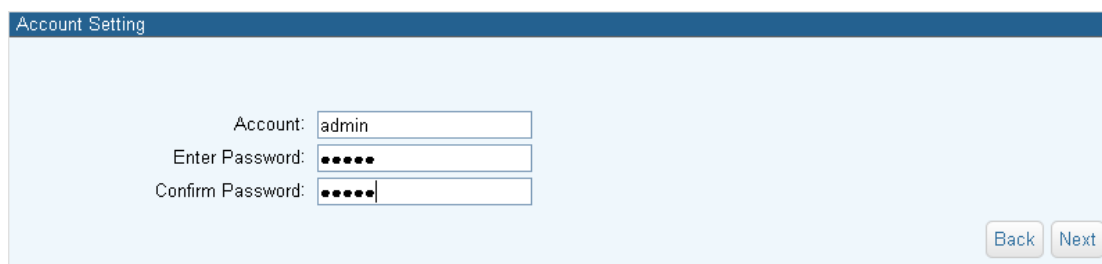
Step 1: Language Selection

Select your language currently available in English, Traditional Chinese and Simplified Chinese, and press **Next** to continue.



Step 2: Account Setting

This menu is for setting the admin account and password of the device. Press **Next** to continue.



Account Setting

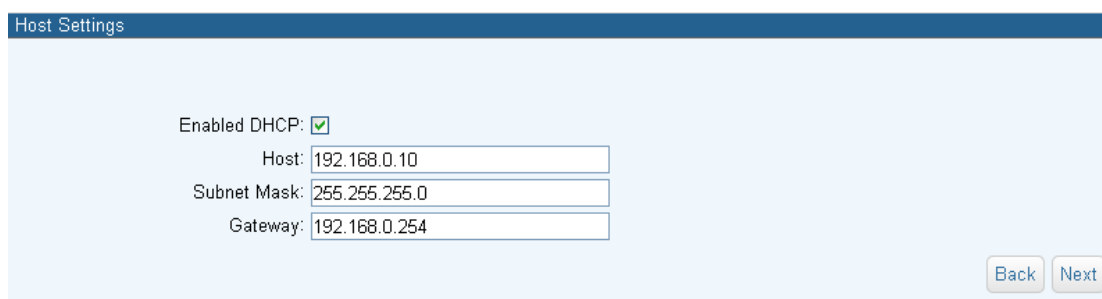
Account:

Enter Password:

Confirm Password:

Step 3: Host Setting

The product is assigned dynamically (DHCP). To specify a fixed IP address, please fill in IP Address, Subnet Mask and Gateway. Press **Next** to continue.



Host Settings

Enabled DHCP: ☒

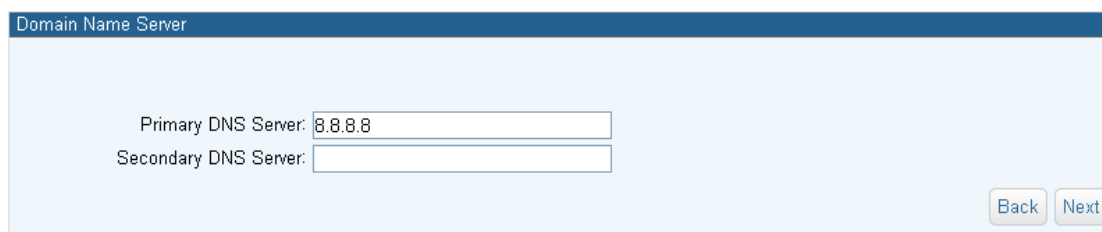
Host:

Subnet Mask:

Gateway:

Step 4: DNS Setting

Key in the DNS server, provided by ISP providers, and then you can set up two DNS servers. Press **Next** to continue.



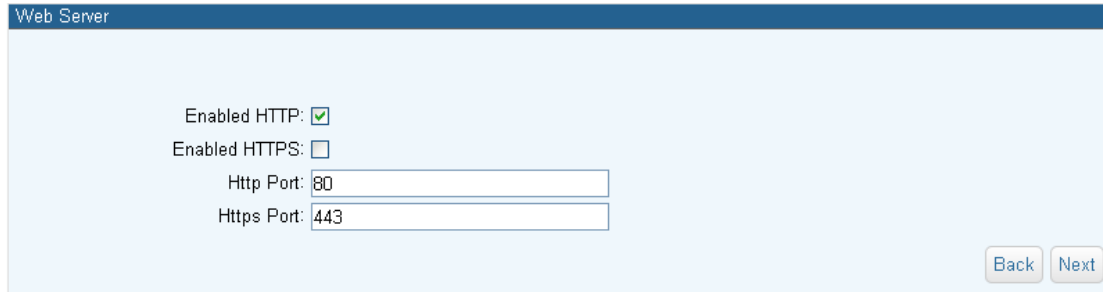
Domain Name Server

Primary DNS Server:

Secondary DNS Server:

Step 5: Web Server

Https can help protect streaming data transmission over the internal on the higher security level. You can select the connection type. "Https" means user cannot connect the camera via Http protocol. The Https path will be: "https://(IP address)/". If you select "Http & Https", both the Http and Https path can be used to access the device. Press **Next** to continue.



Web Server

Enabled HTTP: ☒

Enabled HTTPS: ☐

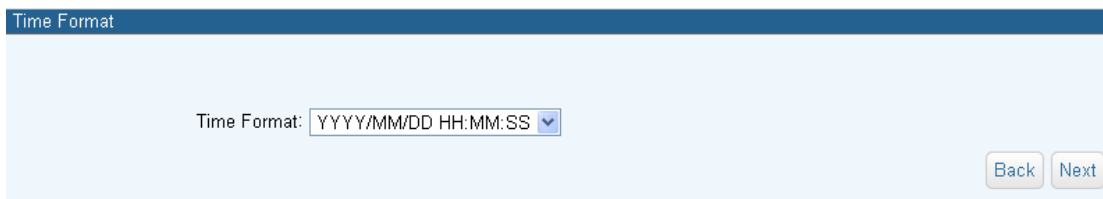
Http Port:

Https Port:

Back Next

Step 6: Time Format

Select the time format to show in the system. Press **Next** to continue.



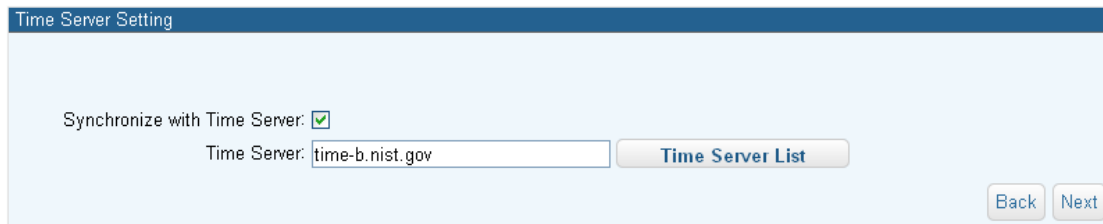
Time Format

Time Format:

Back Next

Step 7: Time Server Setting

User can set up device time synchronized with Time Server. Press **Next** to continue.



Time Server Setting

Synchronize with Time Server: ☒

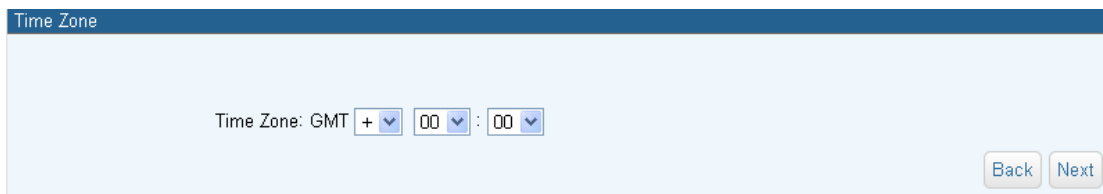
Time Server:

Time Server List

Back Next

Step 8: Time Zone

Please fill in the time zone where the device is. The system is based on Greenwich Mean Time, and thus, an accuracy setting to time zone may affect the time record of events and chart. Press **Next** to continue.



Time Zone

Time Zone: GMT :

Back Next

Step 9: Daylight Saving Time

Set the Daylight saving time from Sunday to Saturday. Press **Next** to continue.

Daylight Saving Time

Enable daylight saving time: ☐

Daylight saving time start at: January 1st Sunday 00

Daylight saving time finish at: January 1st Sunday 00

Back

Next

Step 10: General Setting

You may set up operational overtime in this section. Press **Finish** to save all settings.

General Setting

'System' Timeout: 30 Min.

Back

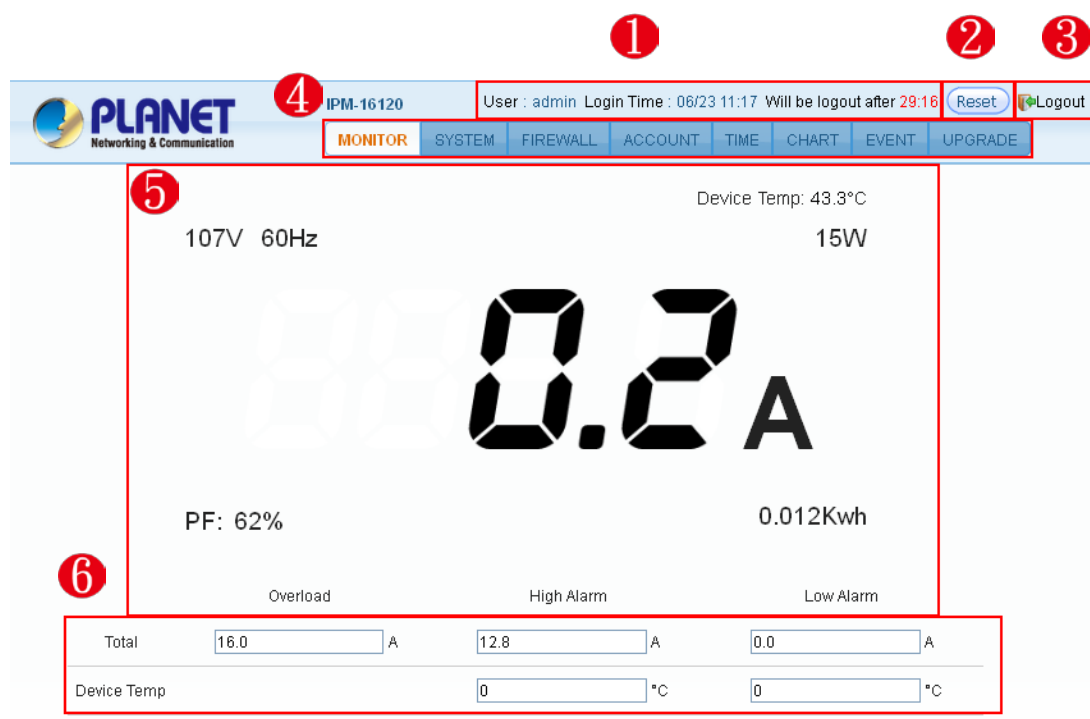
Finish

Chapter 4 Web-based Management

This section provides instructions about how to use the web interface to configure and control the IP Power Manager remotely.

4.1 Monitor

After a successful login, the web page will display the following operation menu where each part is illustrated below:

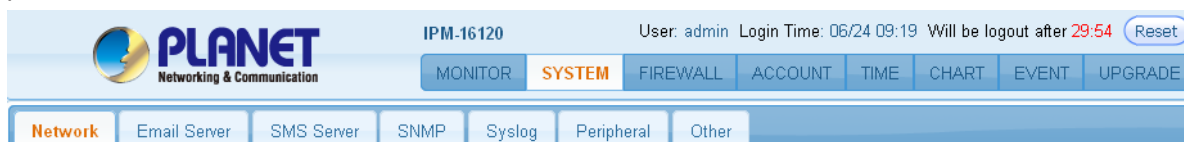


1	User login information	
2	Reset the logout Time	
3	System logout	
4	Function bar	
5	Voltage (V)	Displays the voltage of the current inlet power.
	Frequency (Hz)	Displays the voltage frequency of the current inlet power.
	Total Current (A)	Displays the currently total power consumption.
	Device Temperature (°C)	Displays the current temperature of the device.
	Power Factor (%)	Displays the power factor of the current input power.

6	Power (watt)	Displays the consumption power value of the current input power.
	Kilowatt Hour (kWh)	Displays the consumption watt-hour of the device since the last zeroing.
	Overload Current	Inputs the current value of the overload power, alarms will be given when the input power current exceeds this alarm value.
	High Alarm (Current)	Sets up the values of high infeed alarm. When the current is higher than you set, the alarm will occur.
	Low Alarm (Current)	Sets up the values of low infeed alarm. When the current is lower than you set, the alarm will occur.
	High Alarm (Device Temperature)	Sets up the values of high infeed alarm. When the current device temperature is higher than you set, the alarm will occur.
	Low Alarm (Device Temperature)	Sets up the values of low infeed alarm. When the device temperature is lower than you set, the alarm will occur.

4.2 System

On this web page, users can set Network, Email server, Message server, SNMP, SysLog, Peripheral parameters, and other relevant data.



4.2.1 Network setting

This menu is mainly for setting the basic data of network.

Host Settings
Ping Test

Enabled DHCP: ☒

Host:

Subnet Mask:

Gateway:

Ethernet Card Speed:

MAC:

Parameters	Description
Enabled DHCP	Use checkbox to enable DHCP. It will assign IP address.
Host	Assign the Network IP address for the power switch.
Subnet Mask	Set up the subnet mask info of this equipment.
Gateway	Set up the gateway port of this equipment.
MAC	Display MAC address.
Ping Test	Confirm whether the device with the IP address or DNS name is connected to the network.

Domain Name Server

Primary DNS Server:

Secondary DNS Server:

Parameters	Description
Primary DNS Server	Configure the IP and DNS server addresses for Network Adapter 1.
Secondary DNS Server	Configure the IP and DNS server addresses for Network Adapter 2.

Web Server

Enabled HTTP: ☒

Enabled HTTPS: ☐

Http Port:

Https Port:

Parameters	Description
Enabled Http	Allows browser to connect with smart monitor by HTTP.
Enabled Https	Allows browser to connect with smart monitor by HTTP SSL.
Http Port	Provides browser to communicate by HTTP with smart monitor.
Https Port	Provides browser to communicate by HTTP SSL with smart monitor.

Firewall
Disable ICMP echo (ping) responses: <input type="checkbox"/>

Parameters	Description
Disable ICMP Response	When Disable ICMP Response check box is selected, the examination will not be responded.

4.2.2 Email Server

When there is a triggered warning from the setup of this PDU, this device will send out alert message to the preset email accounts.

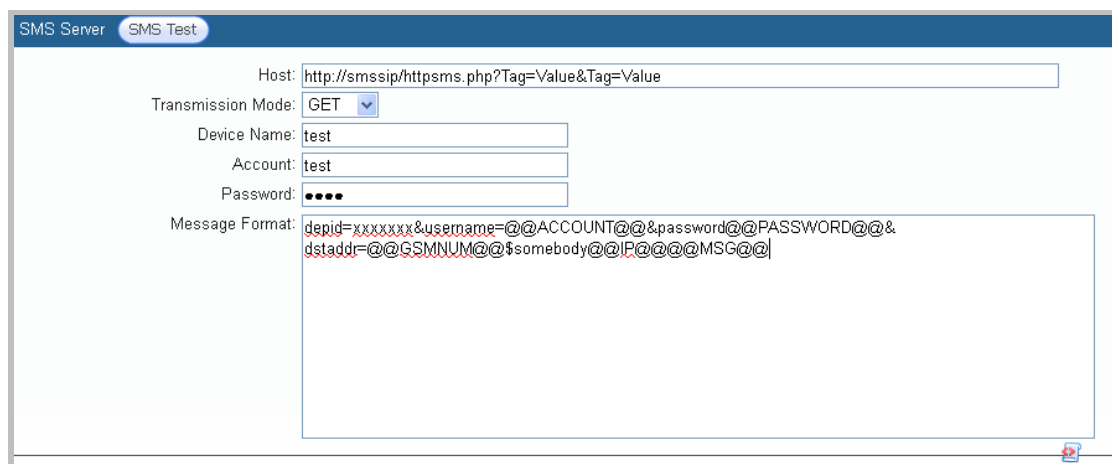
Email Server Settings	Email Test
Host:	<input type="text" value="mail.planet.com.tw"/>
Port:	<input type="text" value="25"/>
SMTP TLS secure connection:	<input type="checkbox"/>
'From' Address:	<input type="text" value="brandonw@planet.com.tw"/>
Subject:	<input type="text" value="IPM-Series Alarm"/>
Authorization:	<input type="checkbox"/>
Username:	<input type="text" value="brandonw"/>
Password:	<input type="password" value="••••••"/>

Parameters	Description
Host	It is the Host IP address of the e-mail sending an alarm e-mail when an event occurs.
Port	It is the port of SMTP mail server. Default is 25.
SMTP TLS secure connection	Check to enable e-mail encryption.
From Address	It shows the sender's email address.
Subject	It shows the subject of the email.
Authorization	If the mail server needs to identify the user, please enable the checkbox and set up the account and password.
Username	The account to log in mail server.
Password	The password to log in mail server.
Email Test	After setting up the above info, you can send a test mail to make sure

Parameters	Description
	this function is normal.

4.2.3 SMS Server

In this section, user can set up the warning message and info to the SMS server. The protocol here is supported by many SMS suppliers' (ISP) API. System will send out account, password, time, and related info via HTTP to the SMS server of ISP supplier or preset SMS server.



SMS Server SMS Test

Host:

Transmission Mode:

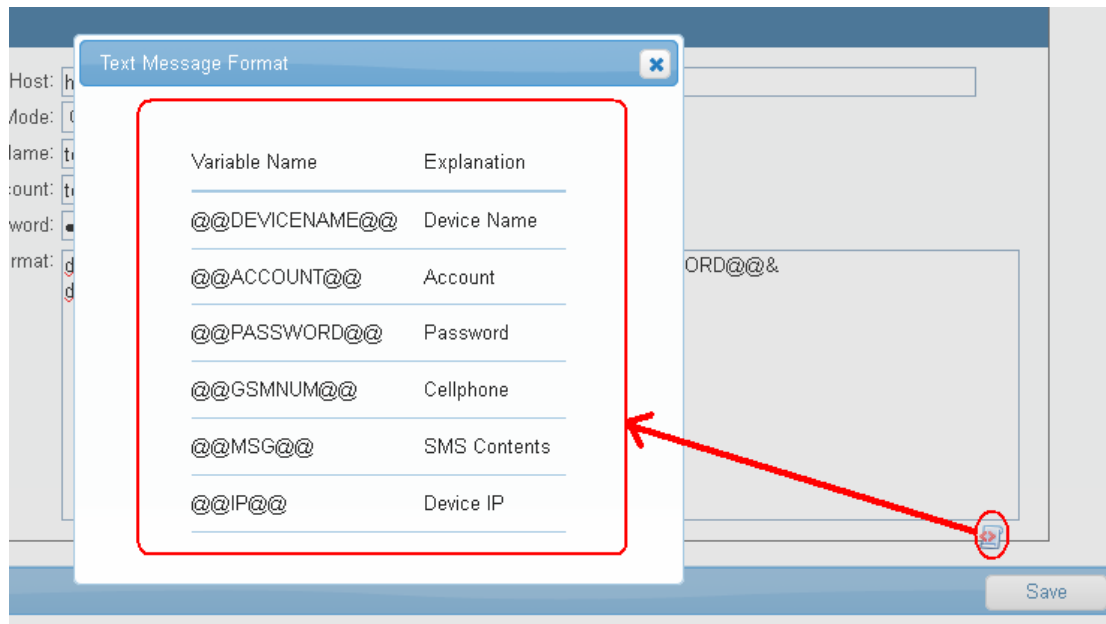
Device Name:

Account:

Password:

Message Format:

Parameters	Description
Host	Host IP address of SMS Server.
Transmission Mode	Follow ISP suppliers' rules to send out short message via GET or POST protocol to sender's server.
Device Name	The name user wants to reveal.
Account	The account to fill in when sending SMS. The same as @@ACCOUNT@@.
Password	The password to fill in when sending SMS. The same as @@PASSWORD@@.
Message Format	We provide "auto bring-in" system with username, password, number, main host and message content.
SMS Test	After setting up the above info, you can send a test mail to make sure this function is normal.



Parameters	Description
@@DEVICENAME@@	The device name to show as sending a message.
@@ACCOUNT@@	The account to send the message.
@@PASSWORD@@	The password to send the message.
@@GSMNUM@@	The number to send the message.
@@MSG@@	Message content to show as sending a message.
@@IP@@	Device IP to show as sending a message.



Message Format is related to your message content, a content may not stay the same as well.

4.2.4 SNMP

You can set up SNMP Agent and SNMP Trap on this page.

SNMP v1/v2c Agent

SNMP v1/v2c Enable: ☐

SNMP Port:

Read Community:

SNMP Writing: ☒

Write Community:

Parameters	Description
SNMP v1/v2 Enable	Enable SNMP v1/v2.
SNMP Port	Set the destination port. Default is 161 .
Read Community	Key-in passwords for the Community Name field. Default is public .
SNMP Writing	Select the checkbox to enable SNMP Write-in.
Write Community	Key-in passwords for the Community Name field. Default is private .

SNMP v3 Agent

SNMP v3 Enable: ☐

User name:

Type:

Authorization type:

Authorization password:

Private type:

Private password:

Parameters	Description
SNMP v3 Enable	Enable SNMP v3.
User Name	The name is SNMP v3 command.
Type	There are two types: Read Only , Read and Write .
Authorization Type	There are two types: MD5 or SHA .
Authorization Password	The password of authorization type. Use MD5 or SHA.
Private Type	There are two types: No or DES .
Private Password	For private password, use DES. Select DES type to key-in password.

SNMP Device Info	
sysName:	<input type="text" value="IPM-16120"/>
sysContact:	<input type="text" value="Administrator"/>
sysLocation:	<input type="text" value="Office"/>

Parameters	Description
sysName	The name displayed on SNMPAgent.
sysContact	The contact displayed on SNMPAgent.
sysLocation	The location displayed on SNMPAgent.

SnmTrap SNMP Trap Test			
Host	Port	Authentication String	Delete
Host : <input type="text"/>	Port : <input type="text" value="162"/>	Authentication String : <input type="text"/>	<input type="button" value="Add"/>

Parameters	Description
Host	The Host IP address of SNMP Trap.
SNMP Trap Port	The phase connects to SNMP Trap. Default is 162 .
Authentication String	The authentication string to access SNMP Trap.
SNMP Test	After setting up the above info, you can send a test mail to make sure this function is normal.

4.2.5 Syslog

Remote Power Manager will send out text message to syslog receiver (syslog server). Please do as follows:

Syslog Syslog Test		
Host	Port	Delete
Host : <input type="text"/>	Port : <input type="text" value="514"/>	<input type="button" value="Add"/>

Parameters	Description
Host	Enter Syslog Server Host IP.
Port	Enter Connect Port for Syslog Server. Default is 514 .
Syslog Test	After setting up the above info, test it to make sure this function is

Parameters	Description
	normal.

4.2.6 Peripheral Parameters

This menu is mainly for setting current, tolerance ranges of temperature and humidity, power statistics and probe as well as the panel operating, etc.

Infeed / PDU

Released Load (Range): A

Temp Sensor

Temp Scale: ▼

Released Temp (Range): °C

Parameters	Description
Released Load (Range)	You may set up threshold current to avoid floating power triggered warning reaction. The warning will be dismissed by system when power current is lower than threshold current.
Temp Scale	You can choose either Celsius or Fahrenheit.
Released Temp. (Range)	You may set up threshold temp.to avoid floating power triggered warning reaction. The warning will be dismissed by system when temp. is lower than threshold temp.

Power Statistics

CO2 Emission: kg/kwh

Electricity Bill: dollar/kwh

Already Consumed: kwh

Parameters	Description
CO2 Emissions	You may set up threshold current to avoid floating power triggered warning reaction. The warning will be dismissed by system when power current is lower than threshold current.
Temp Scale	You can choose either Celsius or Fahrenheit.
Released Temp	You may set up threshold temp.to avoid floating power triggered

Parameters	Description
(Range)	warning reaction. The warning will be dismissed by system when temp is lower than threshold temp.

Interface Control (Elite)

Direction:

'SET Button' Timeout: Sec.

Timeout: Sec.

Parameters	Description
Direction	You may set up threshold current to avoid floating power triggered warning reaction. The warning will be dismissed by system when power current is lower than threshold current.
"SET Button" Timeout	Use Navigation button to view LCD panel: LCD panel will show the initial picture of the first phase automatically as no operation is processing.
Timeout	In alarm setting status: LCD panel will show the initial picture of the first phase automatically as no operation is processing.

4.2.7 Other

This menu is mainly for setting device web page language, operation timeout and device date format.

General Setting

Language:

'System' Timeout(Min.):

Time Format:

MQTT Host:

MQTT Port:

Parameters	Description
Language	Traditional Chinese, Simplified Chinese and English.
"System" Timeout (Min)	This is the last time that the device will logout automatically with no operation in process.
Time Format	Choose equipment time format. There're three formats from the drag

Parameters	Description
	down list: YYYY/MM/DD/HH/MM/SS MM/DD/YYYY/HH/MM/SS DD/MM/YYYY/HH/MM/SS
MQTT Host	Enter MQTT Host IP.
MQTT Port	Enter Connect Port for MQTT. Default is 1883 .


Security Setting

IP Lock-up period(Min.):
IP Login times:

Parameters	Description
IP Lock-up Period (Min.)	The period of such IP has been locked up.
IP Login Times	The number of times that user logs in.

4.3 Firewall

In this tab, you may set up permitted IP or Mac address to access this remote power manager.



IPM-16120
User: admin Login Time: 06/24 09:19 Will be logout after 29:58 [Reset](#)

[MONITOR](#)
[SYSTEM](#)
[FIREWALL](#)
[ACCOUNT](#)
[TIME](#)
[CHART](#)
[EVENT](#)
[UPGRADE](#)

4.3.1 IP Filter

User can set up permitted IP section on this page.

[IP Filter](#)
[MAC Filter](#)

IP Filter

Enable IP Filter: ☐

Allowed IP Section	Delete
<input type="text" value="192"/> <input type="text" value="168"/> <input type="text" value="0"/> <input type="text" value="188"/> ~ <input type="text"/> Add	

Parameters	Description
Enable IP Filter	Allow authorized IP address to access this device.

Parameters	Description
Allowed IP Section	After keying in permitted IP section, please click ADD to implement this action. To delete a specific IP address, please click "X".

4.3.2 MAC filter

This menu is mainly for setting of Network MAC Address having access to this device.

IP Filter


MAC Filter

MAC Filter

Enable MAC Filter: ☐

Allowed MACAddress	Delete
00 : 30 : 4f : 9e : b7 : 23	<input type="button" value="Add"/>

Parameters	Description
Enable MAC Filter	Mark this square to enable Mac filter and press the Save button to store the setting after permitted Mac address is built. System will reject people who try to access this remote power manager from other Mac addresses. Unmark the square and press the Save button if you expect to cancel this function.
Allowed MAC Address	Enter permitted MAC number. Please click ADD to implement this action. To delete a specific IP address, please click "X".




Note

MAC blocking feature is only available for local area network; if a router is used, the original adapter MAC address may be changed.


4.4 Account

This menu allows the administrator to set up 20 sets (max) of authorized user accounts. You can Add, Modify and Delete the User account.



IPM-16120
User: admin Login Time: 06/24 09:19 Will be logout after 28:07
Reset

MONITOR
SYSTEM
FIREWALL
ACCOUNT
TIME
CHART
EVENT
UPGRADE

Account	User Level	Modify	Delete
admin	Administrator		

Parameters	Description
Modify	Modify the previous setting. Operation of Alarm.
Delete	Click Delete icon : browser will pop up a Confirmation of delete window. Click Confirm : this Account cannot be utilized any longer.

4.4.1 Basic Info

To set up account, password and user type.

Account

Basic Info
Email
SMS

Account:
Password:
Confirm:
User Level:

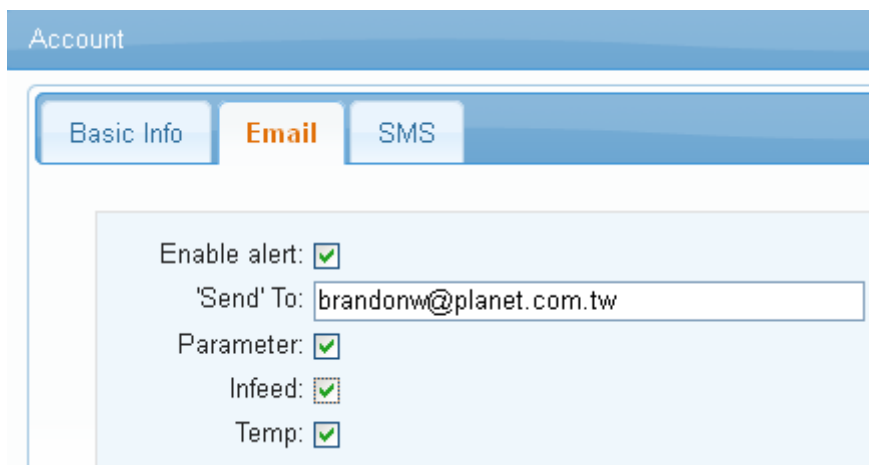
General
General
Manage
Administrator

Parameters	Description
Account	The account to log-in this device.
Password	The password to log-in this device.
User Level	User authority operation can be grouped into General, Manage and Administrator as shown below: <ul style="list-style-type: none"> General: Only Switch control is permitted, but not authorized to change system settings. Manage: Parameter setting is permitted, and controllable switch can be changed.

Parameters	Description
	<ul style="list-style-type: none"> ● Administrator: Administrator can manage the whole network.

4.4.2 Email

System would send email when alarm occurs.



Account

Basic Info **Email** SMS

Enable alert: ☒

'Send' To:

Parameter: ☒

Infeed: ☒

Temp: ☒

Parameters	Description
Enable Alert	Check to open email alarm system informed by email.
'Send' To	Enter the mail address of Receiver.
Parameter	Use the checkbox to enable the setting. The system will follow the warning method you choose.
Infeed	Use the checkbox to enable the setting. When abnormal condition of infeed happens, system will send a warning message by the way you command.
Temp	Use the checkbox to enable the setting. When abnormal device temperature occurs, system will send a warning message to manager.

4.4.3 SMS

System would send SMS when alarm occurs.

Account

Basic Info Email **SMS**

Enable alert: ☐
 Cellphone:
 Parameter: ☐
 Infeed: ☐
 Temp: ☐

Parameters	Description
Enable Alert	Check to open email alarm system informed by SMS.
Cellphone	Informed by short message, please fill out the right cellphone number.
Parameter	Use the checkbox to enable the setting. The system will follow the warning method you choose.
Infeed	Use the checkbox to enable the setting. When abnormal condition of infeed happens, system will send a warning message by the way you command.
Temp	Use the checkbox to enable the setting. When abnormal device temperature occurs, system will send a warning message to manager.

4.5 Time

You can set up the time server on this page.

Device Time

Date (YYYY/MM/DD): 2016/06/24
Time (HH:MM:SS): 03:02:20

Time Synchronization

Sync with computer ▼
Date (YYYY/MM/DD): 2016/06/24
Time (HH:MM:SS): 11:03:04 Time Synchronization

Time Server Setting

☐ Synchronize with Time Server
Time Server: Time Server List

Time Zone

Time Zone: GMT + ▼ 00 ▼ : 00 ▼

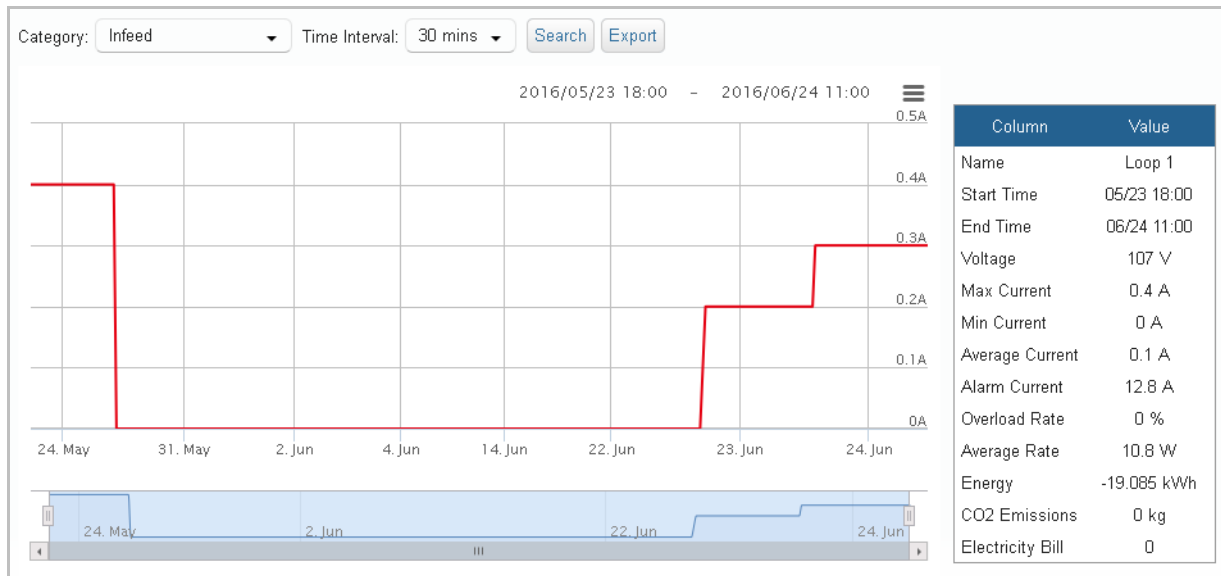
☐ Enable daylight saving time
Daylight saving time start at: January ▼ 1st ▼ Sunday ▼ 00 ▼
Daylight saving time finish at: January ▼ 1st ▼ Sunday ▼ 00 ▼

Parameters	Description
Device Time	Date and time of the system.
Time Synchronization	You may either scroll down to select Sync with computer or Manual Setting .
Synchronization with Time Server	Select this time method if you want the system time of this power switch to be the same as Greenwich Mean Time (GMT).
Time Server	You can build a new NTP server and then sync with it to be the same date and time. If not, click Time Server List, and choose one from the drop-down list.
Time Zone	The time here is following Greenwich Mean Time as most NTP servers do. User must adjust the time to be the same with local time.

Parameters	Description
Enable daylight saving time	Set the Daylight saving time from Sunday to Saturday

4.6 4.6 Chart

This menu is mainly for query infeed, device temperature and statistic data.



Parameters	Description
Category	You may either scroll down to select infeed or device temperature .
Time Interval	You may either scroll down to select 1 min. or 30 mins .
Search	See the reference date chart as shown in the table.
Export	Download this data chart.

4.7 Event

The web page supports to query the recent 200 logs, including the time, types and reasons of such logs.

Event Record			
	Time	Type	Message
1	2016/06/24 10:41:23		User[admin][192.168.0.188]login
2	2016/06/24 09:19:41		User[admin][192.168.0.188]login
3	2016/06/23 18:20:07		User[admin][192.168.0.188]login
4	2016/06/23 16:59:59		User[admin][192.168.0.188]login
5	2016/06/23 15:30:15		User[admin][192.168.0.188]login
6	2016/06/23 14:38:37		User[admin][192.168.0.188]login
7	2016/06/23 13:11:10		User[admin][192.168.0.188]login
8	2016/06/23 11:17:48		User[admin][192.168.0.188]login
9	2016/06/23 11:17:08		Reboot software

Page 1 of 4 View 1 - 50 of 9

Parameters	Description
Refresh	Click the Refresh button to refresh the screen.
Download	Click the Download button to save the event log information. The event log is saved in .txt format.
Delete	Click the Delete button to delete the Event logs.

4.8 Upgrade

This web page is for upgrading the device firmware and the configuration files. You can download the latest firmware from the suppliers' web page to upgrade the firmware of IPM series.

Product Name: IPM-16120
Firmware Version: 1.006 Build: 201605161509 [Reboot Device](#)

Please reboot device first before upgrade firmware.

Upload firmware: [Choose File](#)
Upload configuration: [Choose File](#)
Download configuration: [Save](#)

Parameters	Description
Upload firmware	To update the firmware online, click " Browse... " to select the firmware. Then click "Upgrade" to proceed.
Upload configuration	Upgrade from previous saved setting.
Download configuration	Download the current setting to PC.

Appendix A: Resetting to Default via Navigation Button

Users who forget the network account and password of the product can press "Reset" to recover to the factory default values, and the device will be rebooted at the same time.

Step 1. In **Network info** press the **Navigation button** for **10 seconds** until **two beeps sound** to enter "Set back to factory default values".



Step 2. Select **Reset Account & IP**, admin account and password will be set as admin (add a new account if there's no admin account). Device IP will be automatically acquired through DHCP (if there's no DHCP server, the device IP should be preset to **192.168.0.10**). The acquired IP is then displayed on the LCD panel.

Step 3. Select **Reset All** to clear all the data of the device.

Appendix B: HTTP Message API Example

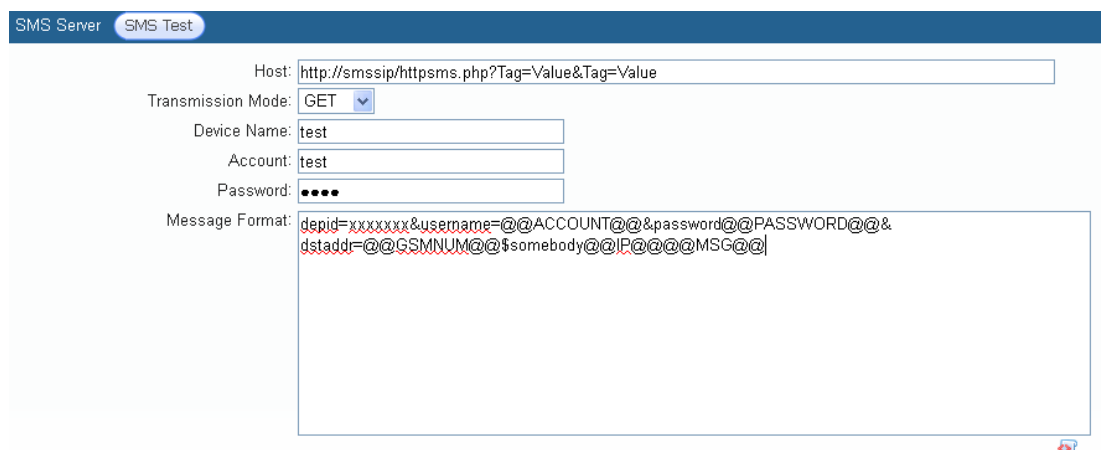
A Message API example of a message service provider is given below. The transmission mode is Get in TTP protocol, and the URL format is as follows:

http://SMLWsip/httpSMLWs.php?Tag=Value&Tag=Value&Tag=Value...

Tag variable list:

Required	Optional Tag	Description
Required	depid	Company Code
Required	username	User's Account
Required	password	User's password
Required	dstaddr	Objective gate number (Separated by commas for delivery to multiple gate numbers, repeated gate number is not accepted during each delivery.)
Required	IPMbody	Message content, using standard URL encoding

Transform the above format into message server parameters, and the menu is shown as follows:

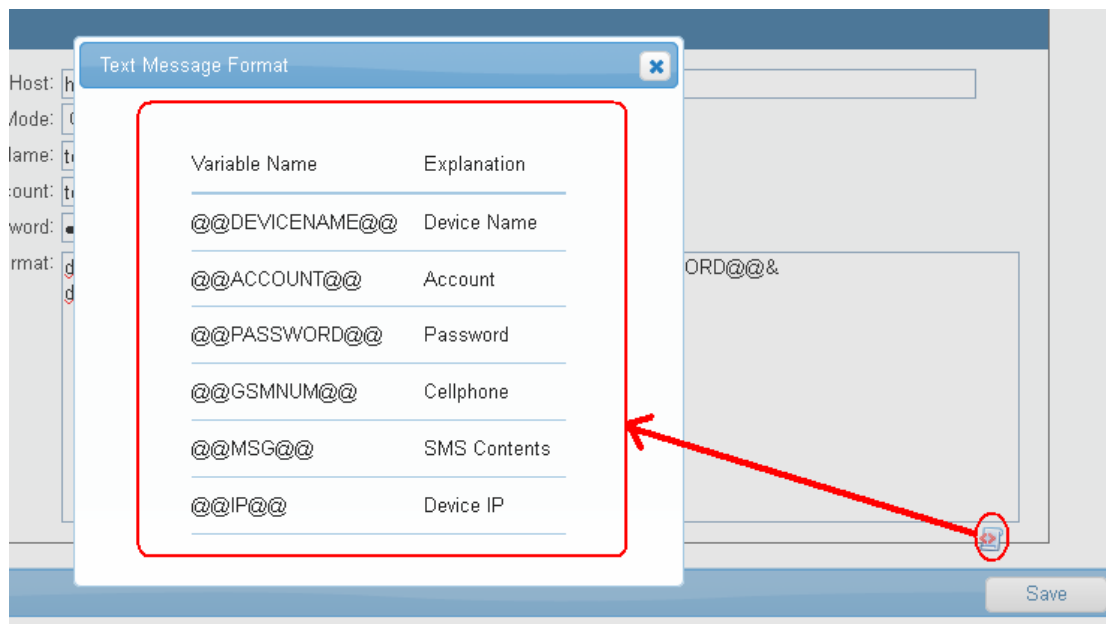


The screenshot shows the 'SMS Server' configuration window with the 'SMS Test' tab selected. The fields are as follows:

- Host:
- Transmission Mode:
- Device Name:
- Account:
- Password:
- Message Format:

After message server setup is completed, press "Message Test" first to check if message can be sent normally.

Press the icon on the left side of the blank to see message format for reference.



Parameters	Description
@@DEVICENAME@@	The device name to show as sending a message.
@@ACCOUNT@@	The account to send the message.
@@PASSWORD@@	The password to send the message.
@@GSMNUM@@	The number to send the message.
@@MSG@@	Message content to show as sending a message.
@@IP@@	Device IP to show as sending a message.

Message Format Explanation:

depid=xxxxxx&username=@@ACCOUNT@@&password=@@PASSWORD@@&dstaddr=@@GSMNUM@@&IPMbody=@@IP@@,@@MSG@@

If you fill the above info in the Message Format, the system would automatically show the following info:

Message format	Description
Company code (depid=xxxxxx) &	Required
User's Account (account=@@ACCOUNT@@)&	Required
User's password (password=@@PASSWORD@@)&	Required
Cellphone number (dstaddr=@@GSMLWNUM@@)&	Required
Device IP & Message content (IPMbody=@@IP@@,@@MSG@@)	This format is changeable with the content.