PowerShield SNMP Card Lite User Manual

SNMP Card Lite
Basic Web-based SNMP Card for UPS
User's Manual
Of SNMP CARD LITE (NML)

Contents

Product Introduction

The SNMP LITE CARD UPS network monitoring adapter supports basic UPS monitoring functions with an intuitive user interface and is an entry level UPS monitoring product to meet the general monitoring requirement of the Powershield single phase UPS portfolio.

Functional Characteristics

1. Stand-alone embedded system
2. User configurable accessibility rights
3. The built-in optimized IP Power communication protocol ensures real-time performance of data collection and can be used together with IP Power SE software to realize remote centralized monitoring.
4. Supports WEB browser configuration management modes.
5. Users can remotely control UPS shutdown, self-test, and restart.
6. Supports standard UPS MIBs (RFC1628) and PPC MIBs.
7. 10/100Mbps Ethernet network
8. Support TLS/SSL protocol
9. Automatically sends event and alert notifications via E-mail, SNMP Trap and IP Power messages
10. With IP Power SE software installed, Network servers/workstations can be safely and smoothly shut down to avoid data loss and equipment damage caused by utility power failure.
11. Support SSL/STARTTLS encrypted mailbox protocol (For example, Gmail, Outlook, etc.

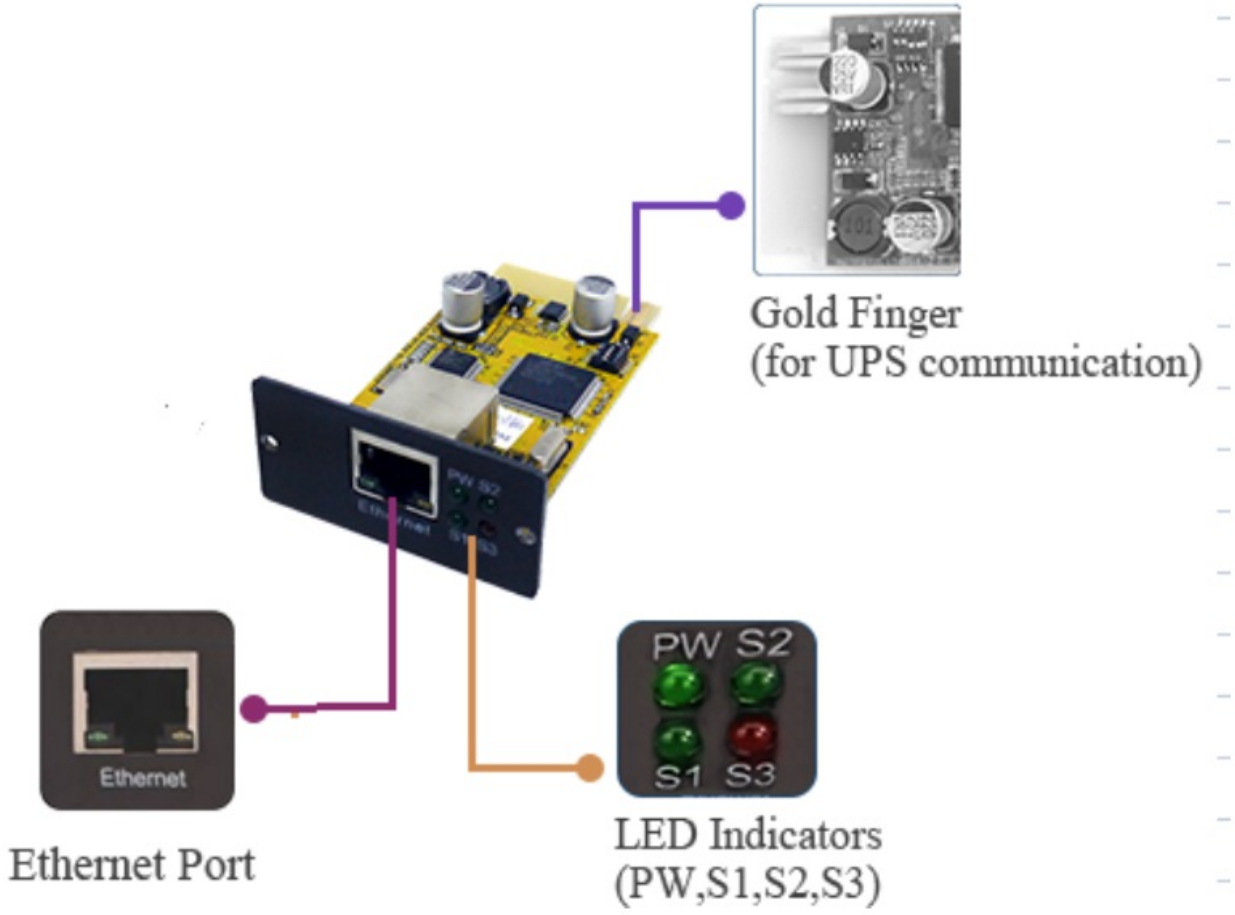
Installation Requirement

- The UPS with RS232 port or internal slot;
- The computer (with administrator privileges) with Ethernet port;

Note: Please read this user manual before installation.

Ports Definition

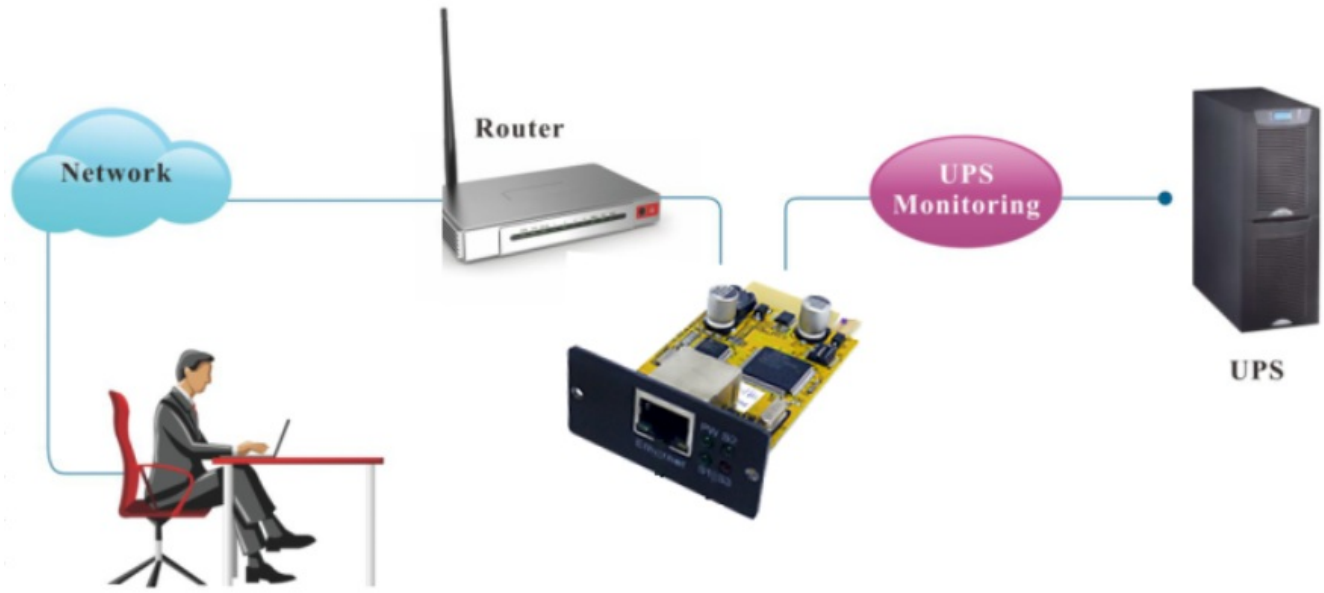
SNMP Lite (NML) network card



1. Ethernet Port: UTP 10/100M RJ45 Ethernet port;
2. PW (Green): Power status indicator, constantly on means power connected well, no light means no power connected;
3. S1 (Green): Running indicator, slow flash is normal;
4. S2 (Green): Not used;
5. S3 (Red): Device status indicator (red), constantly on means connected well with UPS and have data communication, flash means disconnected or UPS communication failed;
6. Gold Finger: Insert into UPS internal slot.

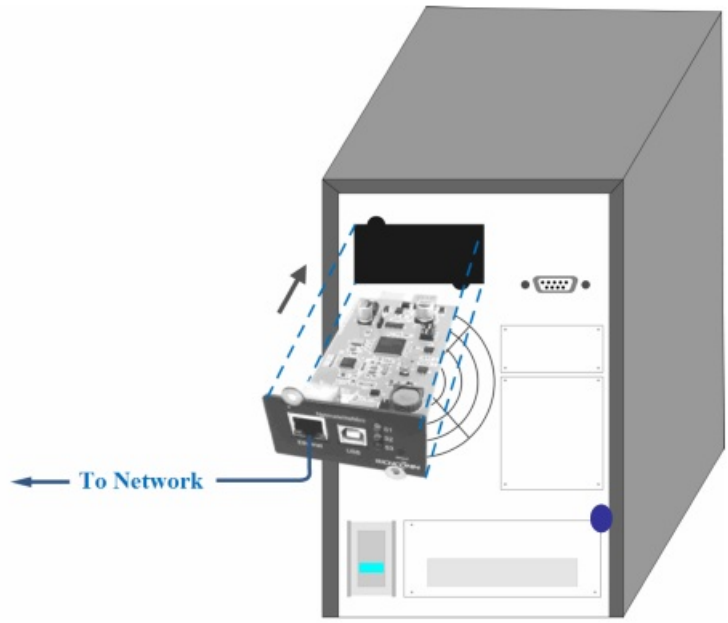
Installation

2.1 Network Diagram

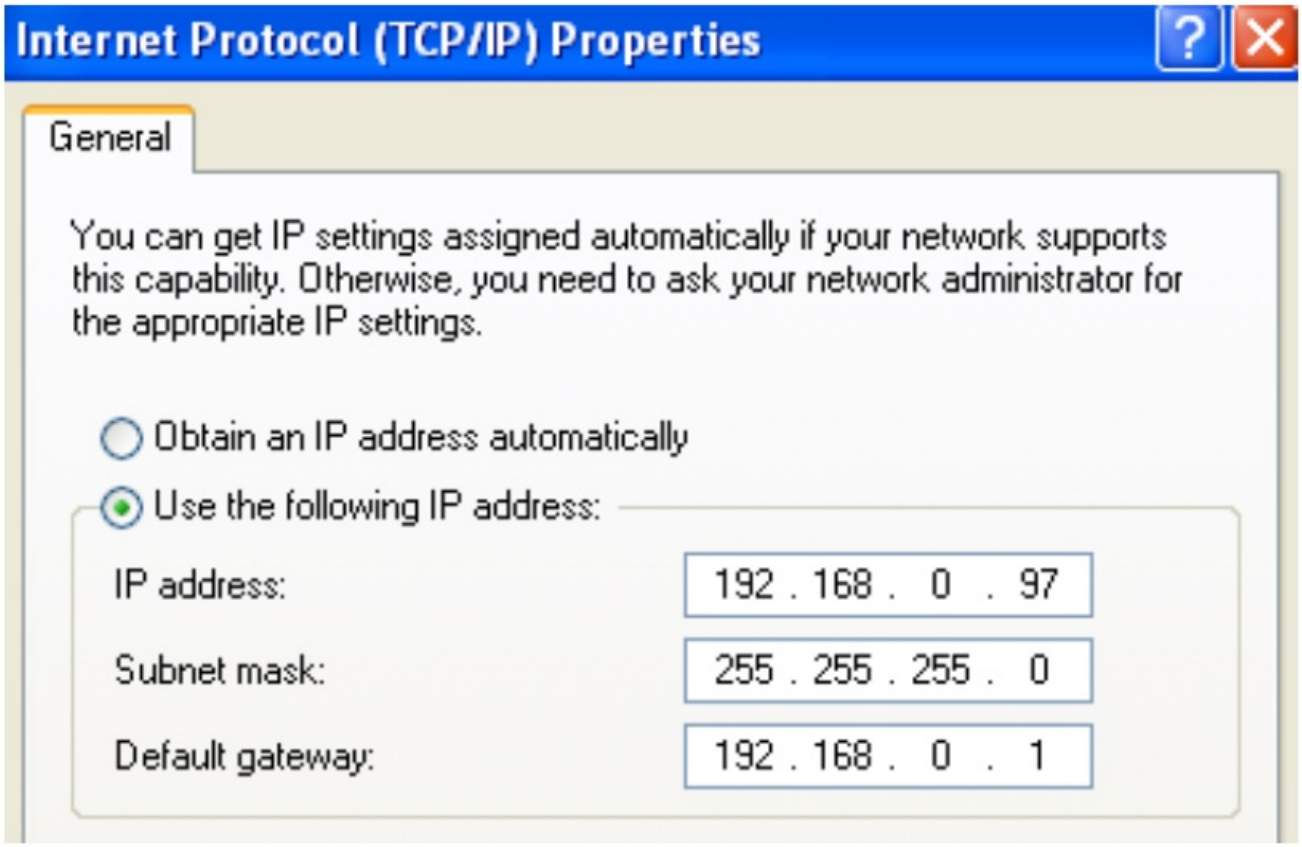


2.2 Hardware Installation
Internal SNMP Cards
Procedure:

1. Insert internal SNMP card to UPS slot
2. Use T568B network cable connect to network



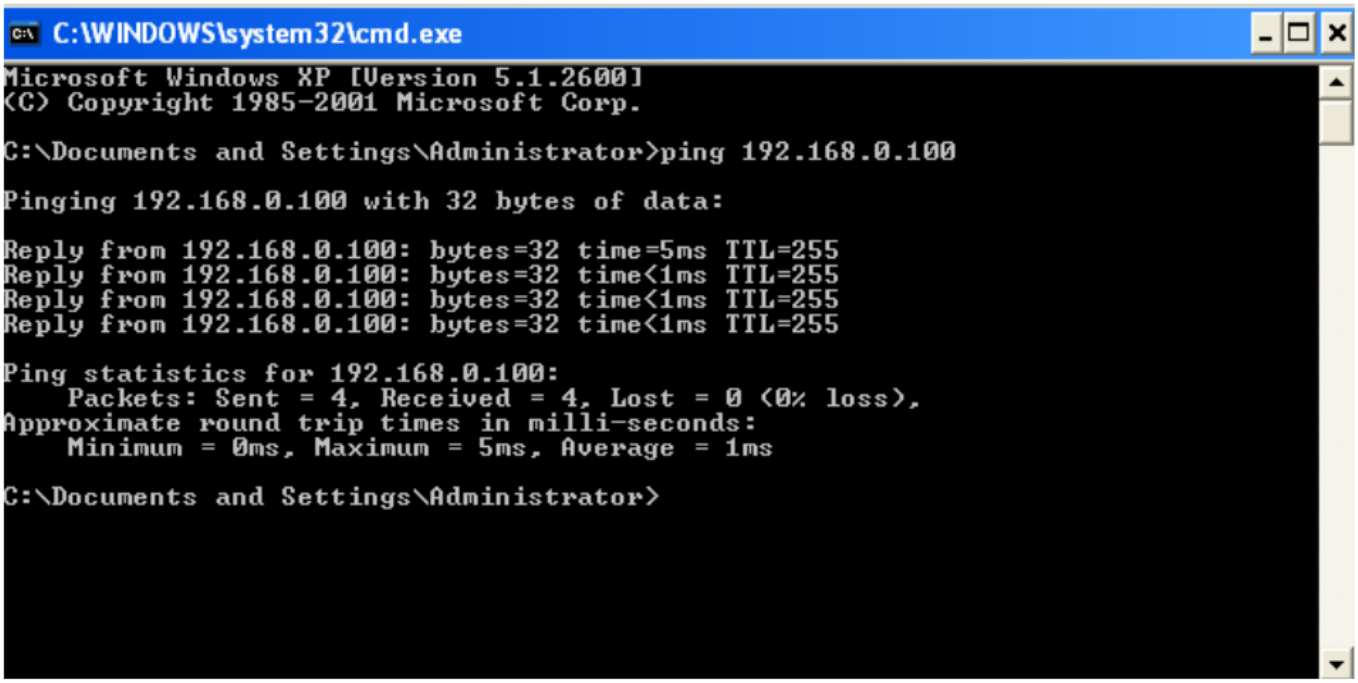
2.3 Set Network Segment



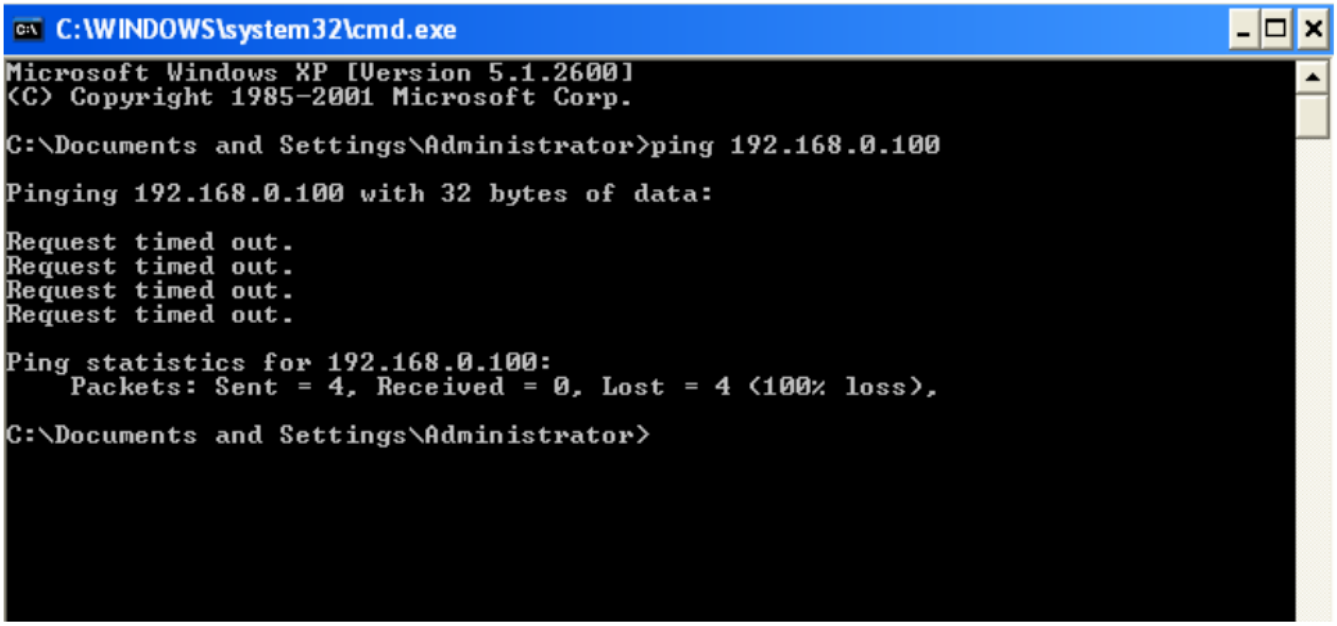
For initial configuration, first we should set a same network segment before sign in web interface, since default IP is: 192.168.0.100, so network segment should be set as 192.168.0.XXX

2.4 Command "ping"

Before sign in the web interface, we can check the default IP address whether available in your network by command "ping"



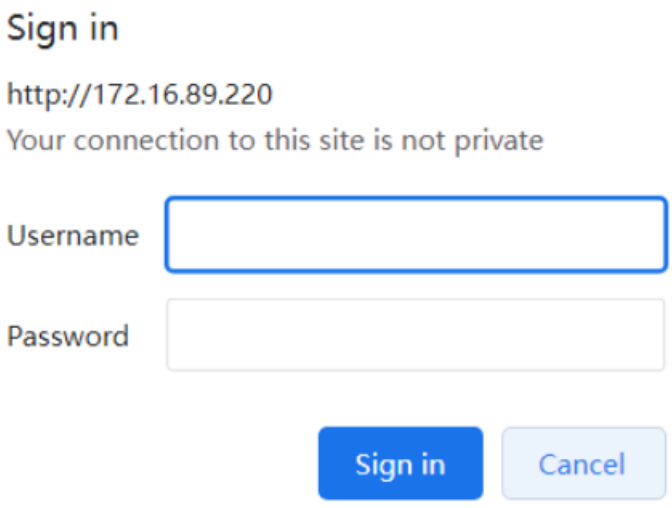
Ping Pass



Ping Fail

2.5 Sign in Web Monitoring Interface

After completing the above steps, open a web browser (IE/firefox/chrome etc), input default IP address 192.168.0.100



Input user name and password , default user name & Password are both “admin”. (User name and Password by can be changed by setting)

2.6 Web Monitoring Interface

After entering the user name and password, the monitoring homepage will display the UPS current status and the user can commence the desired changes to the SNMP Lite configuration settings

<Home page>

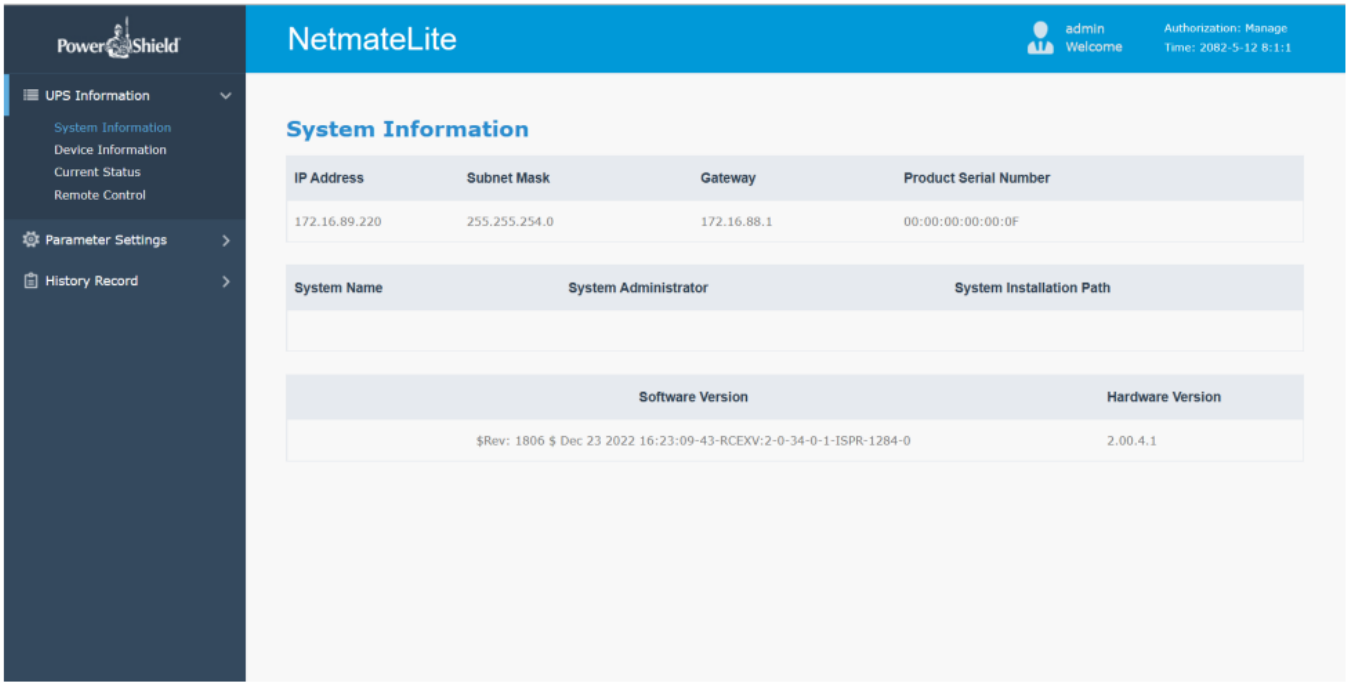
Software Configuration Setting Introduction

3.1 UPS Information
Sub-Menu

- System Information
- Device Information
- Current Status
- Remote Control

3.1.1 System Information

This page is to display SNMP Lite card basic information and network information. The information shown is provided by SNMP Card Lite SNMP card itself and parameter settings



A, IP Address
This part will automatically display when users finish the [Network Setting] **B, Subnet Mask**
This part will automatically display when users finish the [Network Setting] **C, Gateway**
This part will automatically display when users finish the [Network Setting] **D, System Name**
This part will automatically display when users finish the [SNMP Setting] **E, System Administrator**
This part will automatically display when users finish the [SNMP Setting] **F, System Installation Position**
This part will automatically display when users finish the [SNMP Setting] **G, Other information will be provided by SNMP Card Lite monitoring system**

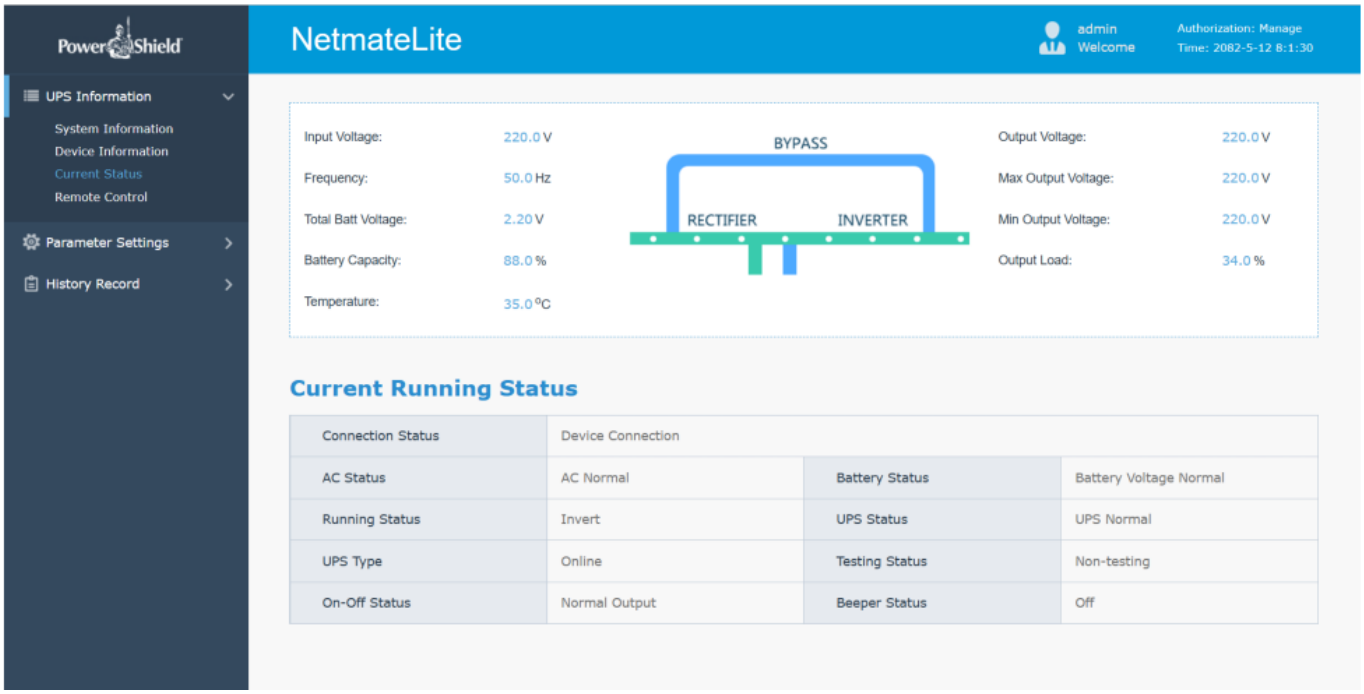
3.1.2 Device Information

This part is to display each part of device information (UPS basic information, battery information and rated information). The contents will change according to user setting and UPS real status. UPS Manufacturer/Model/Version will be provided by the UPS itself.

3.1.3 Current Status

This menu displays the UPS current running status. The Graphical User Interface clearly displays the UPS current running status. When an abnormal alarm occurs, figures will turn in to red font accordingly.

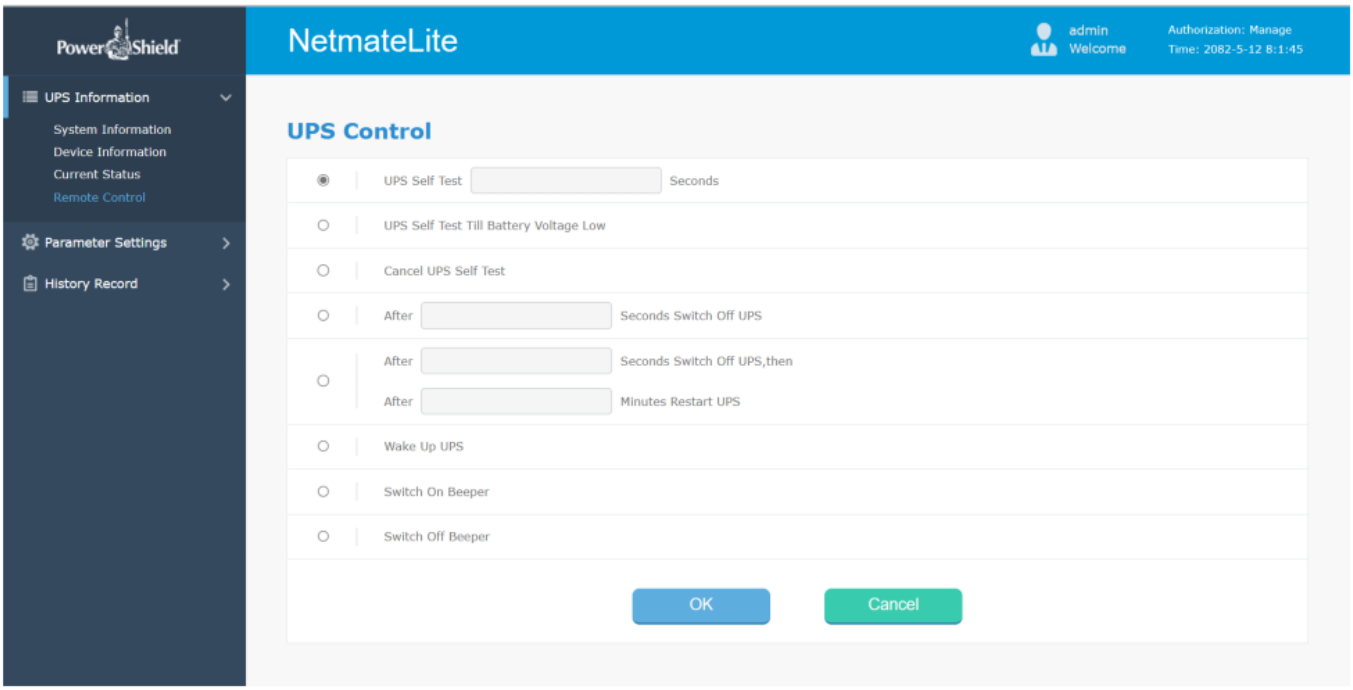
Single-phase UPS Monitoring



Basic Information parameters displayed include:
Input Voltage/Input Frequency/Battery Voltage/Battery Content/UPS Temperature/Output Voltage/Output Max Voltage/Output Min Voltage/ Current Load /Temperature and Humidity.

3.1.4 Remote Control

This menu is to run ups self test, remotely switch on/off, and restart UPS.



3.2 Parameter Setting
Sub-Menu:

- System Settings
- Network Settings
- SNMP Settings

- E-mail Settings
- User Settings
- IP POWER Settings

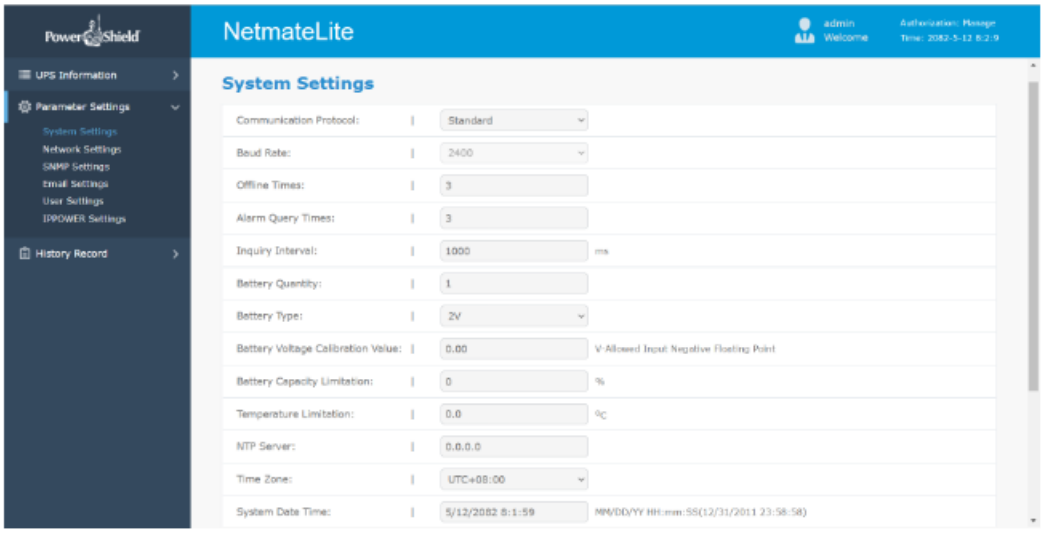
3.2.1 System Settings

Basic Parameter Settings

This menu is used to configure UPS basic parameters, Baud Rate/ Offline Times/Alarm Times/Inquiry/Battery Quantity/ Battery Type/System Date Time/NTP server need to be set according to real UPS information.

Shutdown settings:

Configure the parameters indicated in Red rectangle to set UPS shutdown options, when UPS constantly in AC break or battery low voltage, will shutdown computer and then UPS. And then when AC recover, UPS will auto restart and computer will restart.



System Parameter settings

Centurion (RT) 1000 / 2000SB / 2000 / 3000 / 6000 / 10K
Communication Protocol: Standard
Battery Quantity: 3 / 4 / 6 / 6 / 16 – 20 / 16 -20
Battery Type: 12V
Lithium Centurion RT 1000 / 2000 / 3000
Communication Protocol: Standard
Battery Quantity: 8 / 24 / 24
Battery Type: 2V
Commander (RT) 1100 / 2000 / 3000

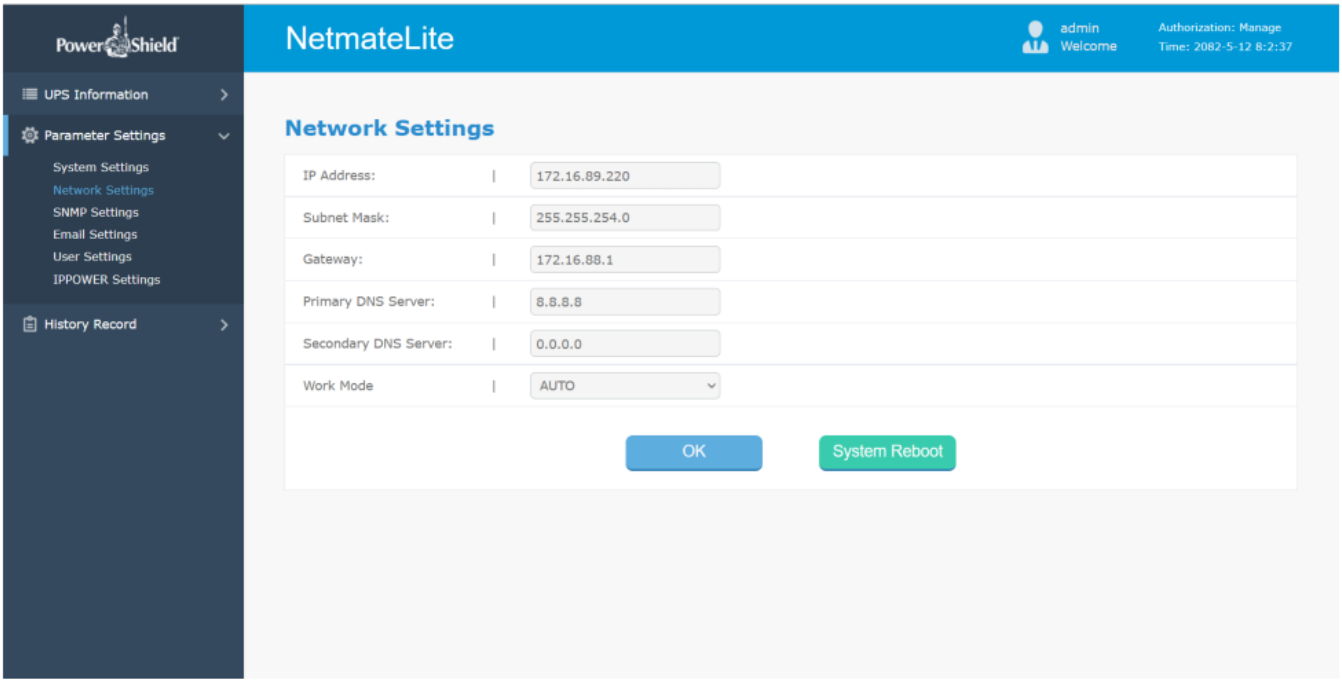
Communication Protocol: Standard
Battery Quantity: 1 / 1 / 1
Battery Type: 12V-1
For additional BBs need to select correct Ah settings on LCD of UPS Menu
Defender 800 Rackmount PSDR800
Communication Protocol: Standard V1
Battery Quantity: 1
Battery Type: 2V
Ninja 600 Standby UPS
Communication Protocol: Standard V1
Battery Quantity: 1
Battery Type: 2V
Tested ntp servers

1. ntp.adelaide.edu.au (129.127.40.3)
2. US CO time-a.nist.gov (129.6.15.28)

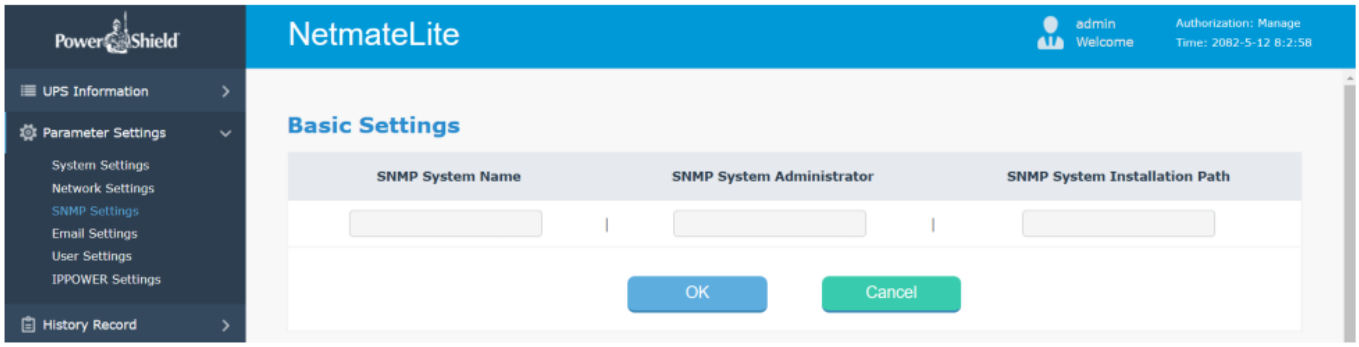
Note: The time and date must be synchronized to a network time server (ntp) selected by the user in system parameters. On system start-up the ups will need to synchronize the time and date from the ntp server. During synchronization the time and date will default to the factory settings and you may receive event alerts with unsynchronized time and date.

3.2.2 Network Settings

This menu is used to configure the network settings: IP address, subnet mask, gateway information and work mode of SNMP Lite card.



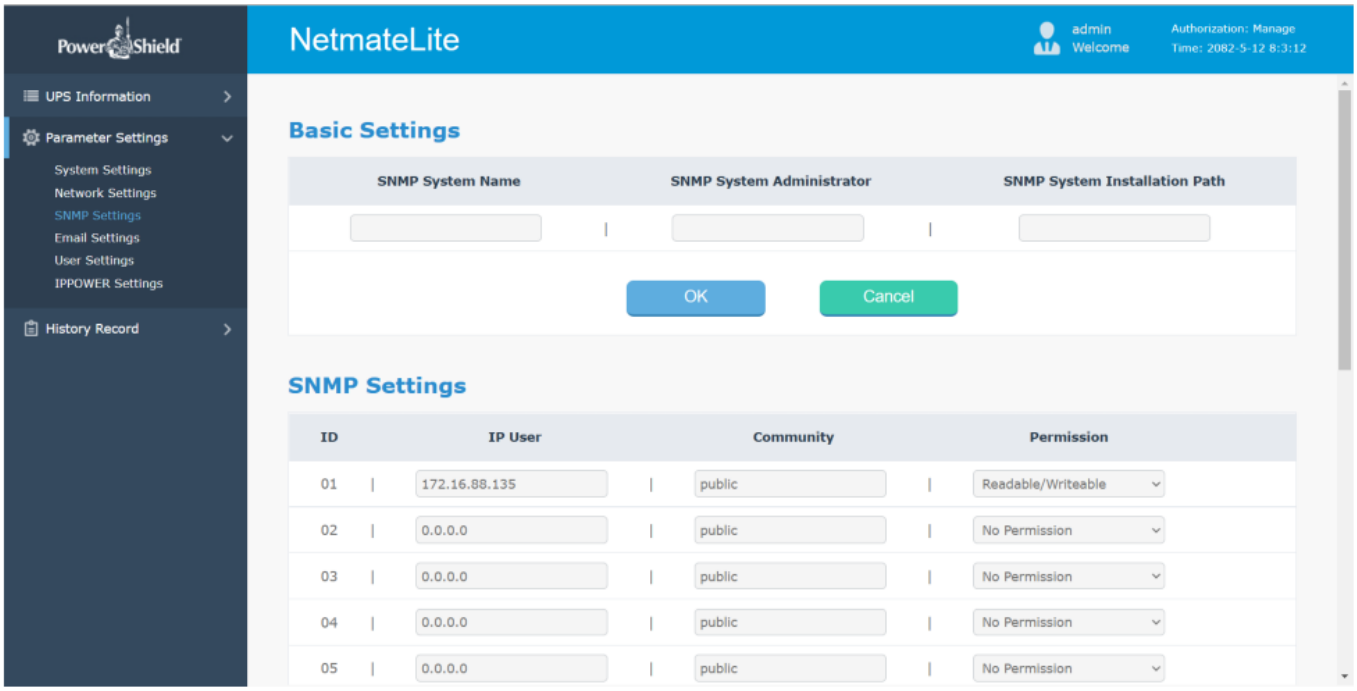
Basic Setting
A, SNMP System Name: Name this SNMP system
B, SNMP System Administrator: Set this SNMP system administrator
C, SNMP System Installation Path: Set SNMP system installation location
The basic settings are used to uniquely identify the SNMP Lite card for central monitoring and management by IP Power SE.



SNMP Settings

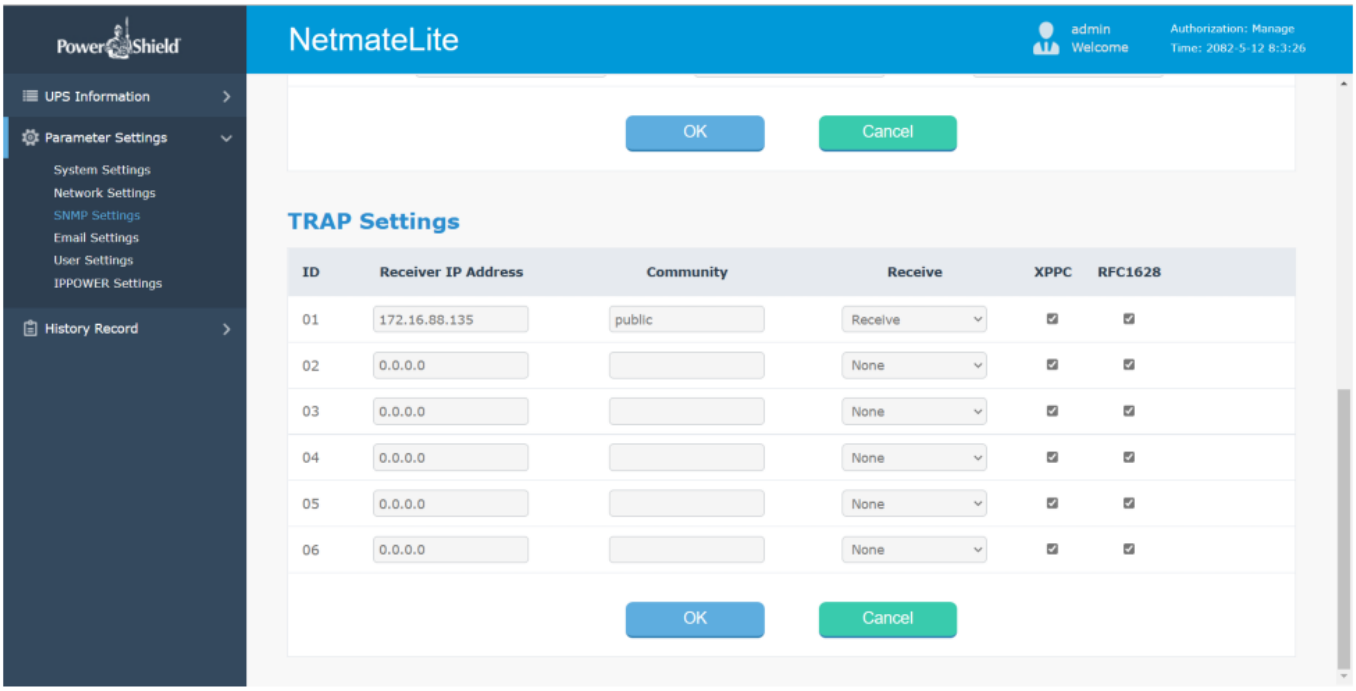
This menu is used to configure SNMP user IP address, community and set relevant authorizations.

Users can enable SNMP Lite card accessibility to 6 unique SNMP user IP addresses with the following permission levels: No Authorization, Readable, Readable/Writable.



Trap Setting

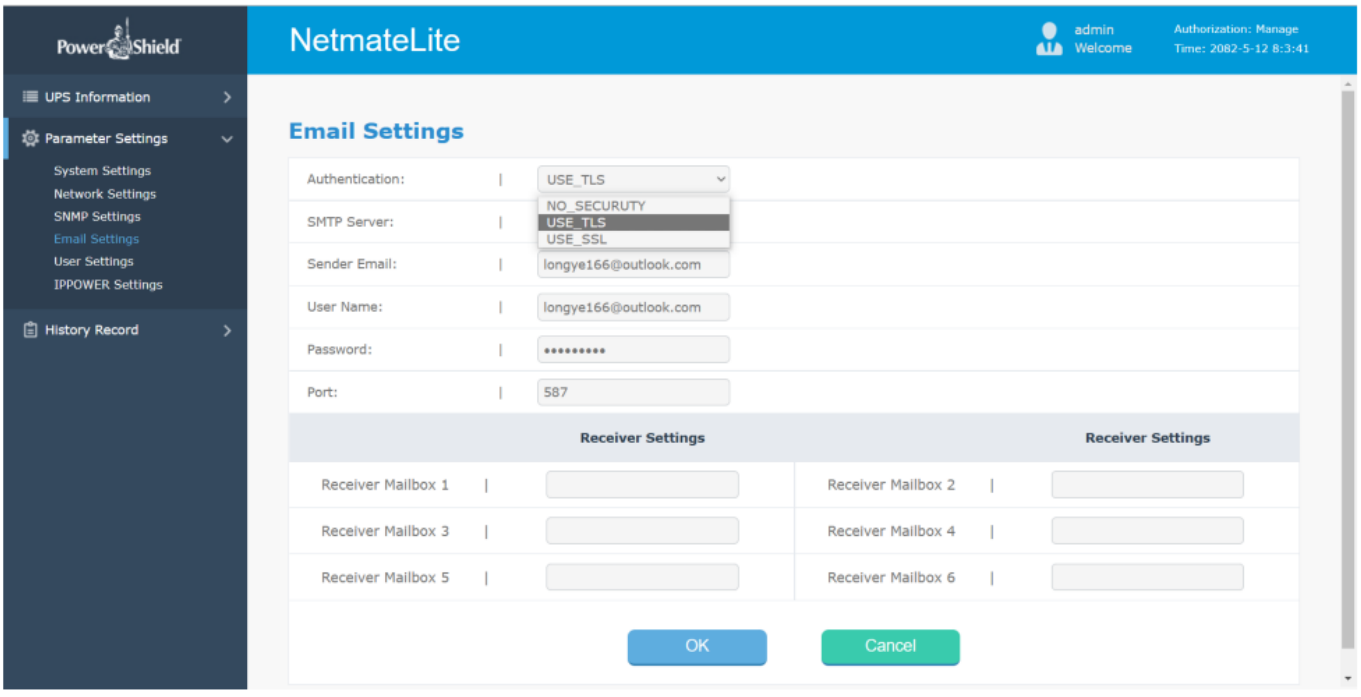
The Receiver IP Address is used for receiving the Traps that are sent by SNMP system. Users can set 6 Trap receivers IP addresses, and choose whether to receive the traps or not.



3.2.4 E-mail Settings

Configuration of email parameters.

Note: For Office365 please select USE_TLS, Port 587 and de-activate multi factor authentication on this email account.



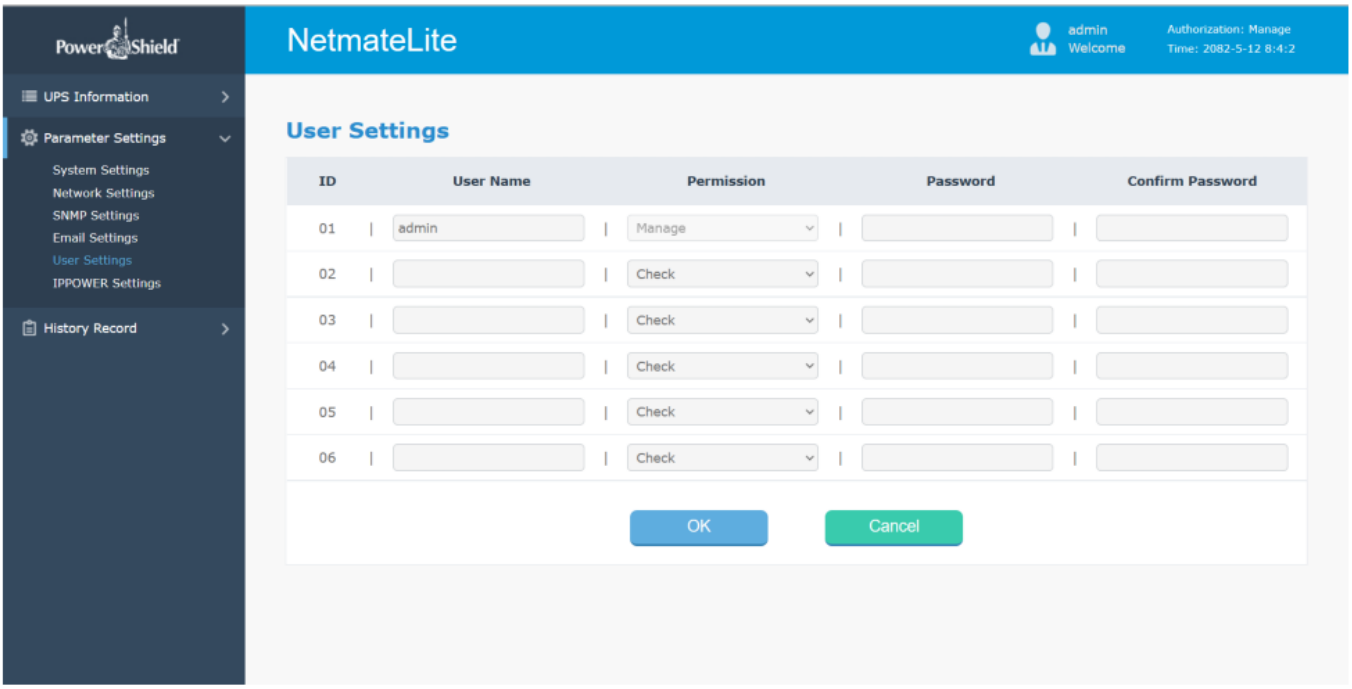
3.2.5 User Settings

This menu is used to set the user identifications, permissions and passwords.

Passwords may have up to 16 characters and only use combinations of the following characters:

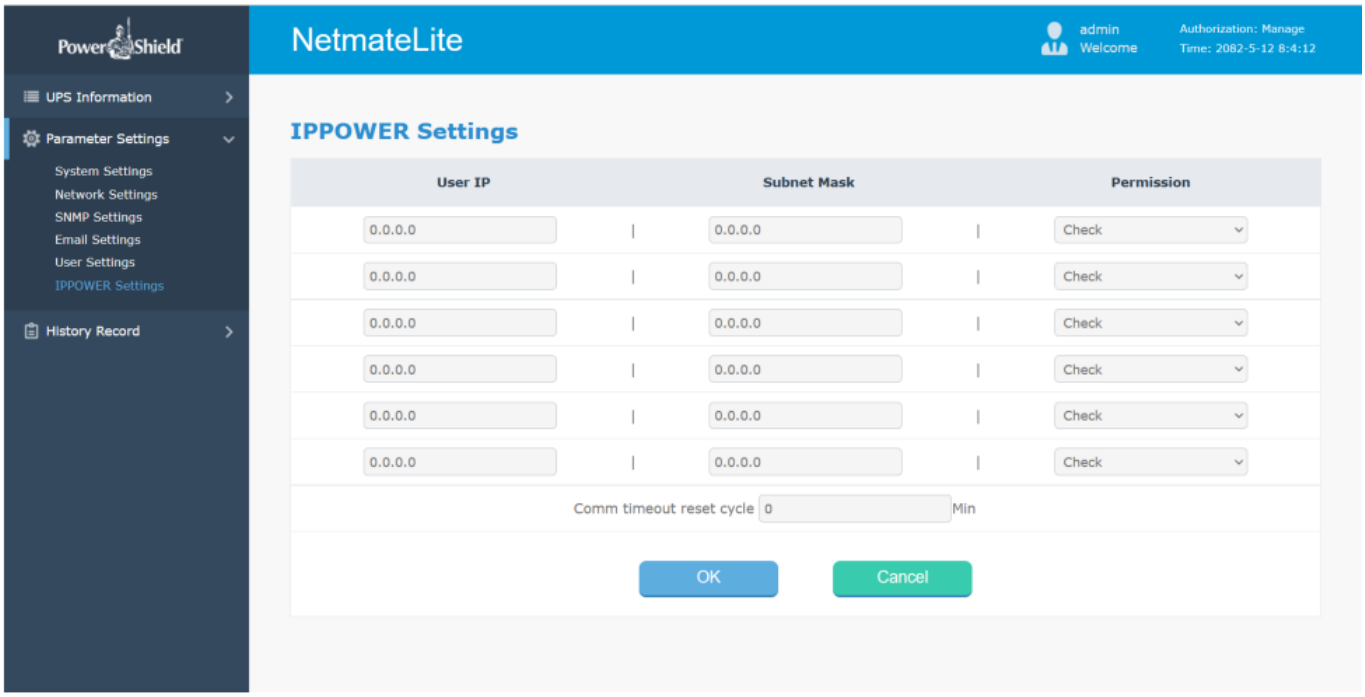
0 to 9, a to z, A to Z and . * @ /

Any attempt to use characters outside of the above set may permanently lockout user password entry and recovery will only be possible with assistance from Power Shield.



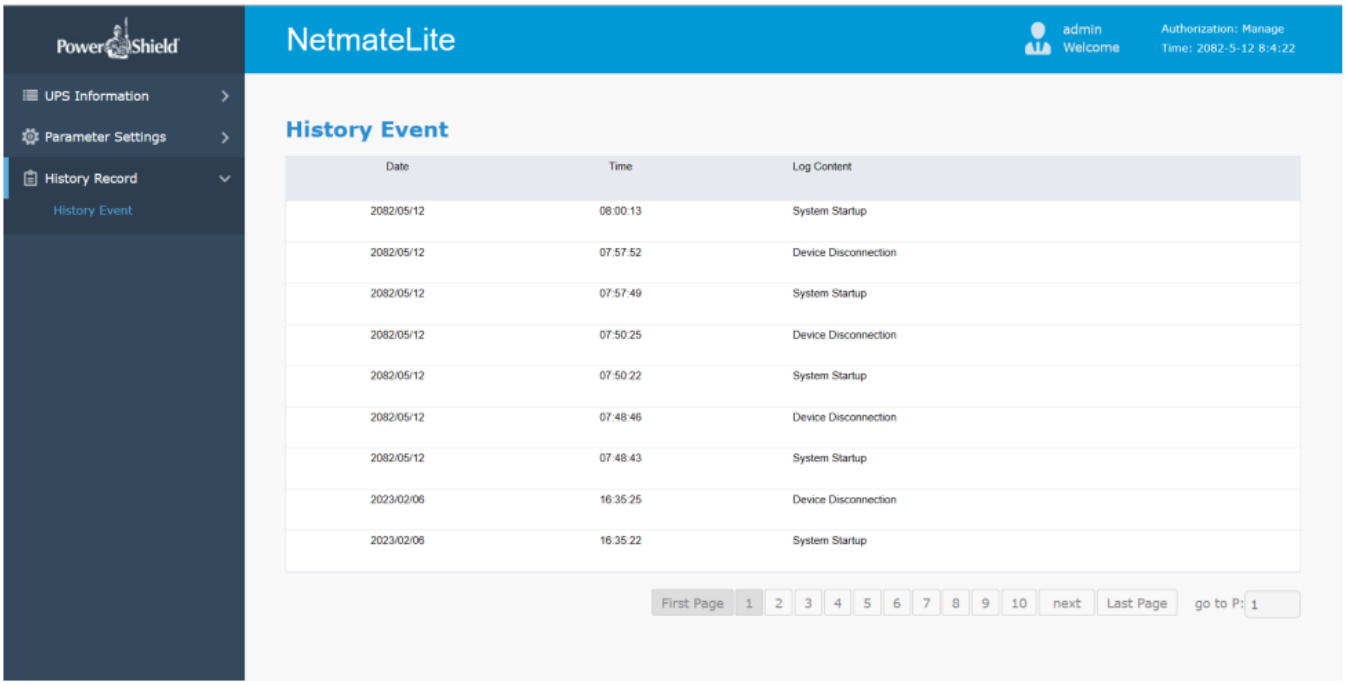
3.2.6 IP POWER Settings

This menu is to set the authorization addresses. All authorization addresses are for remote monitoring and management via IP Power SE. Authorization permissions including Control and Access.



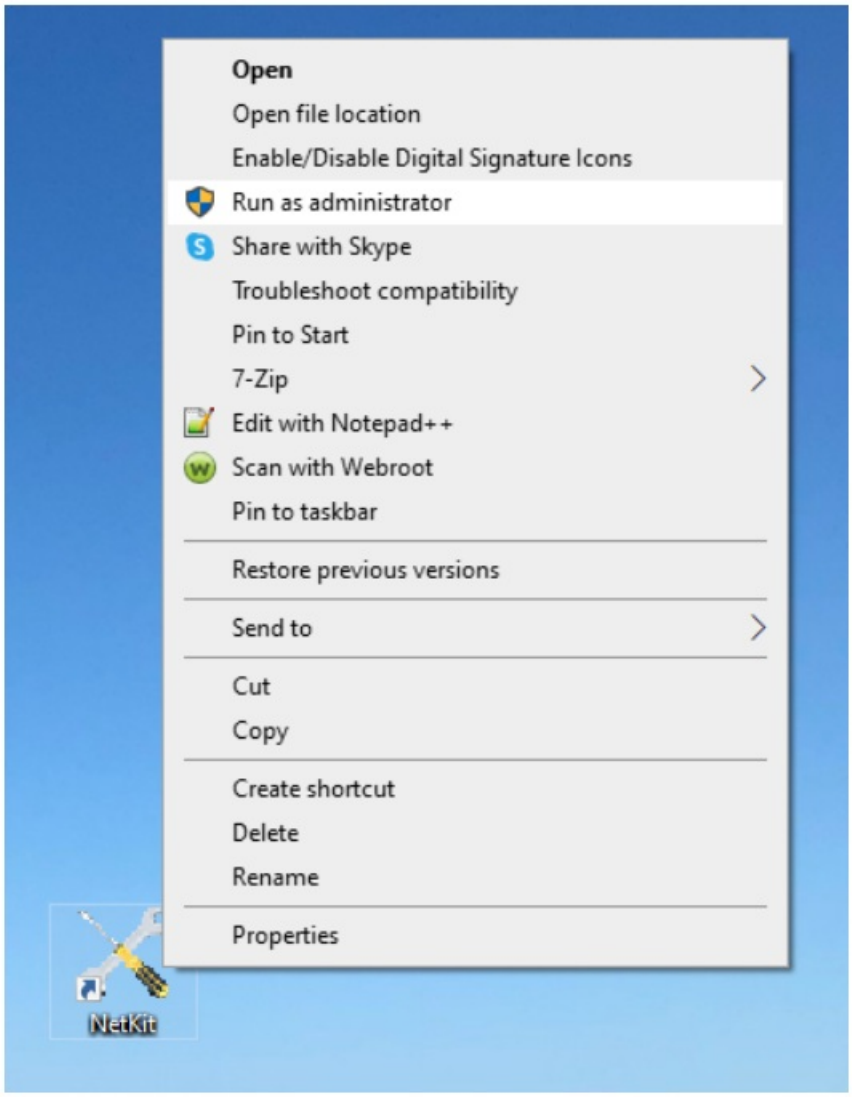
3.3 History Event

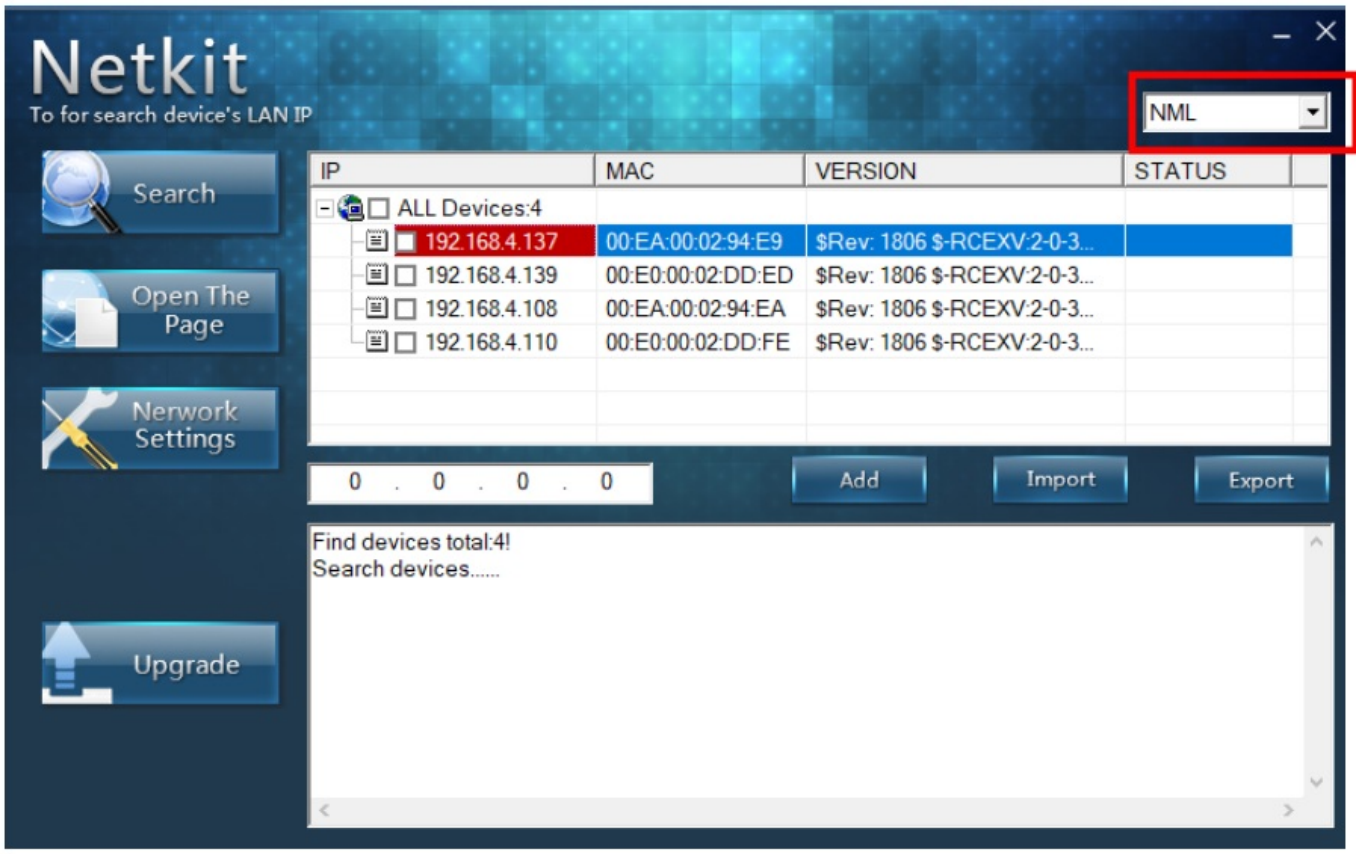
This page is used to display history events and records including the Date/Time/ Log.



3.4 NetKit

Network utility kit, for scanning SNMP lite cards on the network.
Run Net Kit as administrator



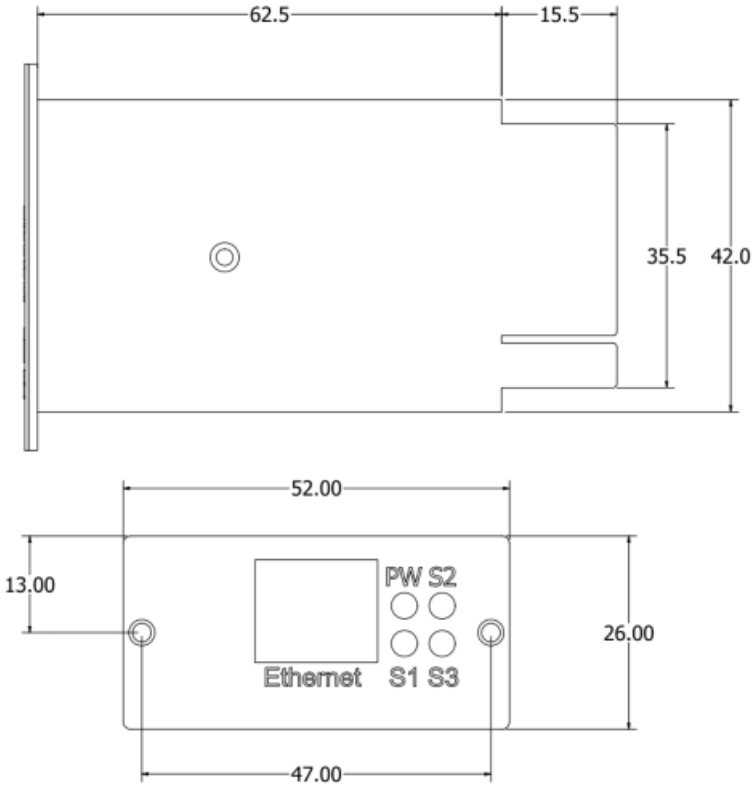


Please select NML and then Search to find your SNMP LITE Card(s).
Press Open The Page or enter IP address in your browser of choice.

Technical Specifications

CPU	ARM Cortex-M4 micro-controller
RAM	160KB SDRAM
Flash	512KB Flash
Network Port	10/100mbps high speed Ethernet adaptive
Serial Port	A high speed asynchronous RS232 serial port be used for UPS communication and upgrade process
Support Browser	Chromium based browsers, Chrome &Edge.
SNMP MIB	Support MIB-II(RFC1213,RFC1315,RFC1316),PPC MIB
Network Protocol	TCP/IP UDP SNMP etc.
Input Power(DC)	Rated:12V Allowed Range:8Volt-14Volt
LED Indicator Light	Power Status, LAN 10/100M Link/Active
Working Current	70mA~150mA MAX:1W
Operating Environment	Environment Temperature 20℃ 70℃ Relative Humidity:95% non-condensing
System Security	Supply filtering mechanism based on IP, user ID and password protect of syste m operation and control management

Physical Dimensions



Documents / Resources

	PowerShield SNMP Card Lite [pdf] User Manual SNMP Card Lite, SNMP, Card Lite, Lite