

SECURE REMOTE POWER CONTROL UNIT: 2-PORT

Securely remote control power on/off/reboot to two devices over IP.



• Linux Inside

IPDU-S2 (Front and Back)

Features & Applications

The ENVIROMUX® Secure Remote Power Control Unit allows you to remotely reboot and control power (on/off) to two servers or other powered devices from any location via secure web interface, RS232, SSH, or Telnet.

- Supports Power On or Off in addition to Reboot.
- Three operating modes for power:
 - Manual reboot — select the outlet and turn the power on or off.
 - Scheduled reboot — set a date, time, and duration of the power cycle. Power cycles can also be scheduled as recurring daily, weekly, or monthly.
 - Associated reboot — power on or off a device when a sensor goes out of range of a user-defined threshold, or reboot if an IP device is unresponsive.
- Security: HTTPS, SSHv2, SSLv3, IP Filtering, LDAPv3, AES 256-bit encryption, 16-character username/password authentication, user account restricted access rights.
- Power Up Sequencing limits in-rush current.
- Outlets can be individually named (up to 80 characters).
- Operates on a hardened Linux system.
- Monitor (ping) up to 8 IP network devices.
 - Configure the timeout and number of retries to classify a device as unresponsive.
 - Power cycle associated power outlets if devices are not responding.
 - Alerts are sent if devices are not responding.
- Monitor environmental conditions.
 - Supports two sensors, including: temperature, humidity, and water detection.
 - When a sensor goes out of range of a configurable threshold, the system will notify you via email, syslog, LEDs, web page, and network management (SNMP).
 - Powers up or down devices when sensors go out of range of user-defined thresholds.
- Firmware upgradeable “in-field” through console port or Ethernet.

Specifications

Power

- 90 to 250 VAC at 50 to 60 Hz.
- Input Connector: One IEC C14 inlet.
- Output Connectors: Two IEC C13 outlets.
- Includes line cord and output cord.
- Input current capacity: 12A
- Output current capacity: 12A

RJ45 Sensor Ports

- Two RJ45 modular jacks for connecting NTI temperature, humidity, temperature/humidity, and liquid detection sensors.

Network Interface

- One 10/100 Base-T Ethernet port with RJ45 Ethernet connector.

Console Port

- One female RJ45 port for terminal access.

Regulatory Approvals

- CE, RoHS

Environmental

- Operating temperature: 32°F to 122°F (0°C to 50°C).
- Storage temperature: -13°F to 149°F (-25°C to 65°C).
- Operating and Storage Relative Humidity: 0 to 90% non-condensing RH.

Protocols

- HTTPS, SSHv2, SSLv3, LDAPv3, AES 256-bit encryption, SNMPv2c.
- Operates and configures via HTTP/HTTPS web page, Telnet, SSH, or RS232 interface.
- Alerts are sent using email, syslog, and/or SNMP traps when any monitored environmental condition goes out of range of a user-specified range.
 - Alerts are posted in message log, which is accessible through Web user interface. The log can be downloaded as a tab-delimited plain text file.

Dimensions

- WxDxH (in.): 6.1x5.6x1.7

Warranty

- Two years



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Control Methods

RS232/Telnet/SSH

- Configure, control and monitor over the text-based menu system accessible via RS232, Telnet, and SSH.
- Access is controlled via username/password.
 - System stores encrypted login information.
- Two user levels: User and Administrator.

Web Interface

- Configure, control and monitor via HTTP/HTTPS webpage.
- Configure outlet operation settings, sensor thresholds and timing, alarm methods, alert formats, sensor/IP device outlet association, and system data log.
- View power outlet status, sensor values, IP device values, and alert status.
 - All power outlets, devices, and sensors can be viewed on one summary page.
 - View, Edit, Turn On/Off, Cycle buttons for each power outlet.
 - View and Edit sensors and IP devices.
- View entries stored in the system logs.
 - Event log records system events such as alerts, user login/logout, failed email messages, etc.
 - Data log records samples of sensor readings. User specifies sampling time period.
 - The log can be downloaded as a tab-delimited plain text file.
- Configure IP information (address, subnet mask, default gateway, DNS, etc.), SMTP settings, SNMP settings, IP filtering, and user administrative settings.
 - Administrator can restrict or grant access from certain IP addresses based on configured filter rules.
- Administrate up to 15 users plus a root administrator.
- Permissions, schedule and alert methods are configurable for each user.

Front Panel LED Indicators

- “POWER” (green) — indicates device is powered.
- “OUTLET” (green / red) — outlet is on or off.
- “SENSOR FAULT” (red) — lights up if a sensor goes out of range of a configurable threshold.
- “IP FAULT” (red) — lights up if an IP device is unresponsive.

Network Operation

- SNMP support, allowing integration into network management platforms.

Security

- Local DB or LDAP authentication
- TLS/SSL secure communications
- SSH v2
- AES, 3DES/DES, Blowfish, RSA, EDH-RSA, Arcfour Encryptions

The screenshot shows the NTI Network Technologies web interface. At the top, it displays the company logo and name. Below that, there's a navigation menu with options like Home, Monitoring Summary, Administration, Log, Support, Logout, and Reboot. The main content area is titled 'Monitoring Summary' and contains three tables:

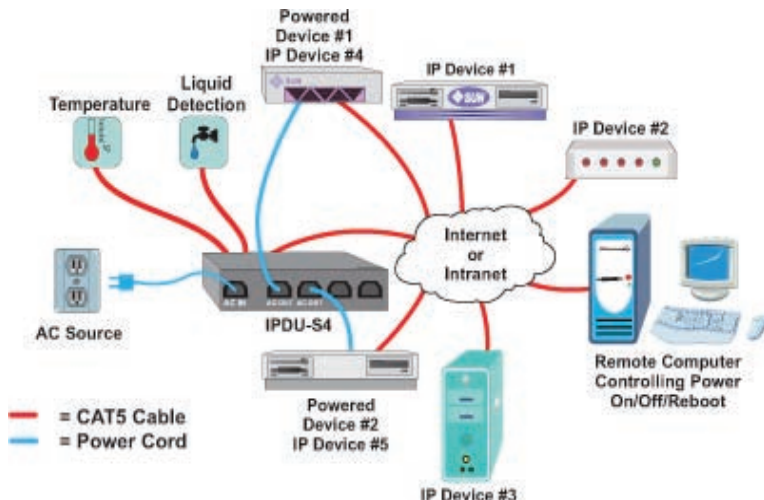
Power Outlets						
Num.	Description	Type	Mode	Status	Action	
1	Power Outlet 1	Power Outlet	Associated	On	View Edit Turn Off Cycle	
2	Power Outlet 2	Power Outlet	Manual	On	View Edit Turn Off Cycle	

Sensors						
Conn.	Description	Type	Value	Status	Action	
2	Server room temperature	Temperature Combo	23.2C	Normal	View Edit Delete	
2	Server room humidity	Humidity Combo	46.9%	Normal	View Edit Delete	

IP Devices						
Num.	Description	Type	Value	Status	Action	
1	linux mail server	IP Device	Responding	Normal	View Edit Delete	

Web Interface Screen Shot

Configuration and Cable Illustration



The screenshot shows a text-based menu interface. At the top, it displays the IP address 192.168.1.234 and the device name IPDU-S2. The main menu consists of the following options:

1. Monitoring
2. System Configuration
3. Enterprise Configuration
4. Network Configuration
5. User Configuration
6. Security Configuration
7. Event & Data Logs
8. System Information
9. Reboot

Below the menu, there is a [Logout] button. At the bottom, there is a message: "Monitor and configure breakers, sensors, power outlets, and IP devices. Press <Tab> to move between the menu and logout button. Press <Enter> to select highlighted item."

Text-Based Menu Interface Screen Shot



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