

Secure Remote Power Control Unit

ENVIROMUX®

Securely control power on/off/reboot to up to eight devices over IP

Power Control & Management

- 120 VAC and 240 VAC Models
- Switchable NEMA 5-15R or IEC 320-C13 Outlets
- On / Off / Reboot / Default Switching
- Outlet Sequencing and Power Up Delays
- Web Interface and Command Line Interface (CLI)
- Manual / Scheduled / Associated Reboot Modes
- Current / Line Voltage / Line Frequency / Power Factor Monitoring
- Normally Open (NO) Relay Contacts, or Optional Normally Closed (NC)
- Overload Protection via Circuit Breaker

Environmental & IP Monitoring

- Supports 2 Environmental Sensors (Temperature / Humidity / Water Detection)
- Monitor (Ping) up to 8 IP Network Devices
- Alert Notifications via Email / Syslog / LEDs / Web Page / SNMP

Security

- Local DB or LDAP Authentication
- TLS/SSL Secure Communications
- SSH v2, SSL v3, AES, 3DES/DES, Blowfish, RSA, EDH-RSA, Arcfour Encryptions
- 16-Character Username/Password Authentication
- User Account Restricted Access Rights



IPDU-S8-P15 (Front and Back)

- Power On/Off/Reboot
- Environmental Monitoring: Temperature, Humidity, Liquid
- Linux Inside

The ENVIROMUX® Secure Remote Power Control Unit allows you to remotely reboot and control power (on/off) to up to eight servers or other powered devices from any location via secure web interface, RS232, SSH, or Telnet. An optional industrial unit is available for harsh environments at temperatures from -40 to 158°F (-40 to 70°C).

Specifications

Power

- 90 to 250 VAC at 50 to 60 Hz.
- Input connector:
 - IPDU-S2: IEC 320-C14 inlet
 - IPDU-Sx-P15(-OT3): NEMA 5-15P line cord (US)
 - IPDU-Sx-P10(-OT3): IEC 320-C14 inlet (EURO)
- Output connectors:
 - IPDU-S2: IEC 320-C13 outlets
 - IPDU-Sx-P15(-OT3): NEMA 5-15R outlets (US)
 - IPDU-Sx-P10(-OT3): IEC 320-C13 outlets (EURO)

Current Rating			
NTI Part #	In	Out	Location
IPDU-S2	10	10	All
IPDU-Sx-P15	15	15	US/Canada
IPDU-Sx-P10	10	10	Euro/UK

RJ45 Sensor Ports

- Two RJ45 modular jacks for connecting NTI temperature, humidity, temperature/humidity, light intensity, 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.

Cascade Port (4/8-Port Models)

- Two RJ45 modular jacks for cascading up to 16 units.

USB Port (4/8-Port Models)

- Female USB Type A connector for downloading log data to USB flash drive.

Environmental

- IPDU-S2, IPDU-Sx-P15/P10:
 - Operating temperature: 32° to 122°F (0° to 50°C).
 - Storage temperature: -13° to 149°F (-25° to 65°C).
- IPDU-Sx-P15/P10-OT3:
 - Operating temperature: -40° to 158°F (-40° to 70°C).
 - Storage temperature: -40° to 185°F (-40° to 85°C).
- Operating/storage relative humidity: 0 to 90% non-condensing RH.

MTBF

MTBF			
NTI Part #	MTBF (hrs)	NTI Part #	MTBF (hrs)
IPDU-S2	183,724	IPDU-S8-P15	83,790
IPDU-S4-P15	113,296	IPDU-S8-P10	57,051
IPDU-S4-P10	86,017		

Protocols

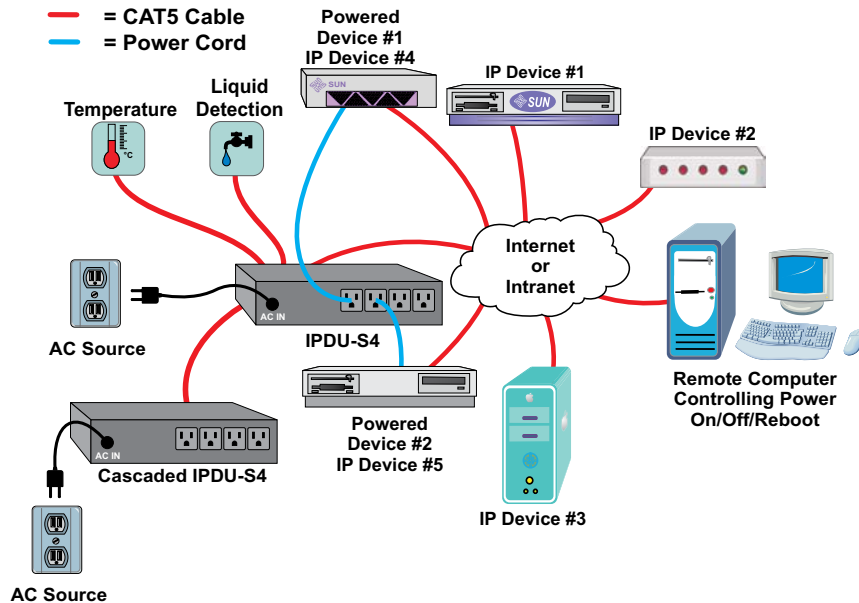
- HTTPS, SSHv2, SSLv3, LDAPv3, AES 256-bit, 3DES, Blowfish, RSA, EDH-RSA, Arcfour, SNMPv2c; IP filtering, IPV6
- Operates and configures via HTTP/HTTPS web page, Telnet, SSH, or RS232 interface.
- Alerts are sent using email, syslog, and/or SNMP traps.
 - Alerts are posted in event log, which is accessible through Web user interface.

Regulatory Approvals

- CE, RoHS

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Configuration and Cable Illustration



Ideal for data centers, co-lo sites, web hosting facilities, telecom switching sites, POP sites, server closets, or any unmanned area that needs to be monitored

Control Methods

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 outlet status, sensor values, IP device values, and alert status 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, SMTP settings, SNMP settings, IP filtering, and user administrative settings.
- Administrate up to 15 users plus a root administrator.
- Configure permissions, schedule and alert methods for each user.

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.

LED Indicators

- 2-Port Model:
 - “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.
- 4/8-Port Models:
 - “POWER” (green) — indicates device is powered.
 - “OUTLET ON” (green) — outlet is on.
 - “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.
 - “BREAKER TRIP” (red) — lights up if the circuit breaker is tripped.

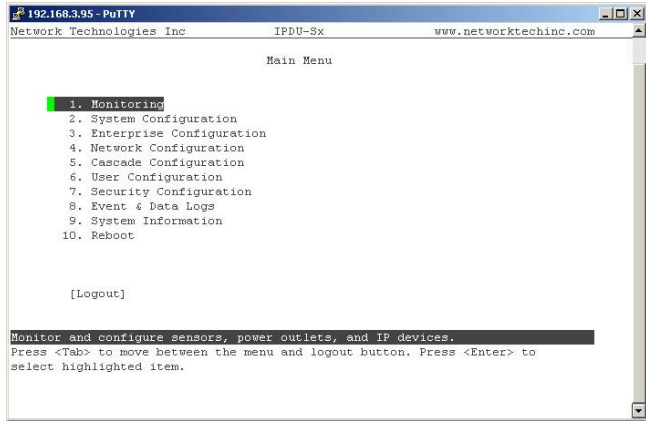
Network Operation

- Integrate into network management platforms with SNMP.

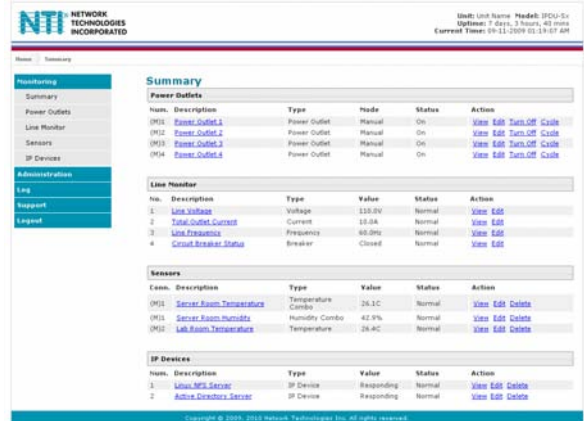
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Control Methods (Continued)



Text-Based Menu Interface Screen Shot



Web Interface Screen Shot

Ordering Specifications

This example explains the Secure Remote Power Control Unit part number by breaking it down into the available options. When ordering, choose the options that you require.

Intelligent Power Distribution Unit Secure # of Ports Optional Normally Closed Contacts Current Capacity Optional Industrial Operating Temperature

IPDU-S **X** **NC** **-P15** **-OT3**

x = 2,4,8 4/8-port only P15 = 15A (US/Canada)
P10 = 10A (Euro/UK)
4/8-port only OT3 = -40° to 158°F (-40° to 70°C)
4/8-port only

Secure Remote Power Control Unit Models

NTI Part #	# of Outputs	Input/Output Current Capacity	Location	Desktop Size WxDxH	Rack Size WxDxH
IPDU-S2	2	10A	All	6.1x5.6x1.7 in (155x142x43 mm)	NA
IPDU-S4-P15	4	15A	US/Canada	16.2x10x1.75 in (411x254x44 mm) (without supplied rackmount kit)	19x10x1.75 in (483x254x44 mm) (with supplied rackmount kit)
IPDU-S4-P10	4	10A	Euro/UK	16.2x10x1.75 in (411x254x44 mm) (with supplied rackmount kit)	19x10x1.75 in (483x254x44 mm) (with supplied rackmount kit)
IPDU-S8-P15	8	15A	US/Canada	17.5x10x1.75 in (445x254x44 mm) (without supplied rackmount kit)	19x10x1.75 in (483x254x44 mm) (with supplied rackmount kit)
IPDU-S8-P10	8	10A	Euro/UK	17.5x10x1.75 in (445x254x44 mm) (without supplied rackmount kit)	19x10x1.75 in (483x254x44 mm) (with supplied rackmount kit)