REMOTE INFRASTRUCTURE MANAGEMENT (RIM-600)

KEY FEATURES

- Remote monitoring of environmental conditions in your data center or equipment room with up to eight external sensors (temperature, humidity, etc.) and the capability to automatically monitor up to 64 IP addresses per Host or Node Module.

- Includes an Ethernet and phone connection so you can be contacted even if the network is down.

- Includes battery backup and non-volatile data storage so you won't lose monitoring capability if the power goes out.

- Sensors are automatically recognized and configured when connected. Attach sensors with standard network cabling using RJ-45 connectors. Connection loss is automatically detected and reported.

- An integrated web server makes it easy to set up monitoring thresholds and to analyze collected data through a web browser.

- An easy to use scheduling tool lets you assign multiple points of contact and specific sequences of contact per events for you and each member of your team — up to 64 users, eight contacts each.

- Set limits and be notified by phone, pager, email, fax or SNMP when thresholds are crossed.

APPLICATIONS

- Continuous environmental, power and security monitoring in the data center and equipment rooms.

USE WITH

- CPI Cabinet and Enclosure Systems
- CPI Rack Systems
- CPI Wall-Mount Systems

RELATED ACCESSORIES

- CPI Thermal Management Solutions
- CPI Cable Management Products
- CPI Power Management Products
- CPI LCD Monitor+Shelf
- CPI Keyboard+Tray

RIM-600 Host Module

RIM-600 Node Module

PowerGate1 Module

PowerGate2 Module

The Remote Infrastructure Management (RIM-600) System gives you the ability to remotely monitor, record and analyze environmental conditions in your data center and equipment rooms. Each RIM-600 Host and Node supports up to eight external sensors and will automatically poll up to 64 IP addresses using a scheduled network ping and port service tests (HTTP, FTP, email, etc.). You can monitor temperature, power or humidity; check for the presence of smoke or water; and use motion detectors, IP cameras and door sensors for added security.

No special wiring is required. Sensors have an RJ-45 connection and patch together with standard Category 5 network cabling. The RIM-600 automatically recognizes and configures sensors and will notify you if sensors are disconnected or not reporting. You can set alarm thresholds for each sensor and schedule when, where and how you or members of your team are to be contacted.

The RIM-600 Host Module includes an Ethernet and a phone connection and can contact you by voice call, text pager, email, SNMP or fax. You can also check the status of equipment at any time through a voice call, two-way email (you email, RIM-600 replies with status), or with a web browser over a web, wireless web or remote dial-in connection. The separate phone connection keeps you connected if your network connection goes down.

Each RIM-600 monitors input power and has an internal battery backup so it will keep working if the power goes out. Add a separate PowerGate Module to remotely reboot up to eight pieces of equipment or monitor power on a specific circuit with the Power Monitoring Sensor.

Reduce cost in large networks by combining Host and Node Modules. Host Modules include an Ethernet and phone connection. Node Modules include Ethernet connections and are supervised by a Host Module. Connect up to 31 Nodes to each Host through your network and monitor up to 256 environmental sensors and 2,048 IP addresses and ports anywhere in your network. Additionally, one PowerGate Module can be connected to each Host or Node Module to provide remote reboot capability for up to 256 outlets.

See reverse for product details or contact CPI Technical Support for configuration assistance.

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SPECIFICATIONS

RIM-600 Host Module:
- Provides remote, automated environmental and network monitoring
- Supervises up to 31 RIM-600 Nodes
- Monitoring:
  Eight external sensors (any mix of temperature, etc.)
  64 IP addresses (scheduled network ping/port service tests)
  Power/reset status when attached to a PowerGate Module
  Sensor connection status (connected/reporting)
  Sound level (in dB) with built-in microphone
  Source power on/off (True RMS Voltage on Host)
  Backup battery charge level
- Record keeping:
  Keeps 62,500 records (can be downloaded)
  Website displays sensor status, history and sample plots
- Notification:
  64 user profiles with eight contacts each
  - Integrated contact scheduling tool
  Sends alarms by voice call (with custom messages), alpha pager, numeric pager, fax, email or SNMP trap
  Check status by voice dial-in, Website, network log-in, SNMP get/set and two-way email
- External connections:
  Sensor connections: (8) RJ-45, 568B
  - Category 5 UTP cable, 1,000'L (304.8 m) max.
  Ethernet connection: RJ-45, 10/100 Base-T, 10/100 Mbps
  - Integrated web server
  - SNMP V1/2/3, complete MIB, and Get/Set support
  Modem connection: RJ-11, 33.6 Kbps
  - Fax: Group 3, 14.4 Kbps
  - Integrated voice processor
  RS-232 Connection: DB9, 9600 bps, DTE
  External microphone: 3.5 mm jack, electret condenser
  Power inlet: IEC-60320, C-14
  - Includes 6'L (1.8 m) cord with NEMA 5-15P plug
- Power/operation:
  Power supply: 100-250 VAC 50-60Hz, 1.6 A
  Power consumption: 25 Watts
  Backup battery: 12V 2.9AH Sealed Gel Cell
  Backup run time: 3.5 Hours
  Operating temperature: 32°F (0°C) to 122°F (50°C)
  Operating humidity: 5-90% RH, non-condensing
- Size: 19" EIA x 1 RMU x 9.6"D (244 mm)
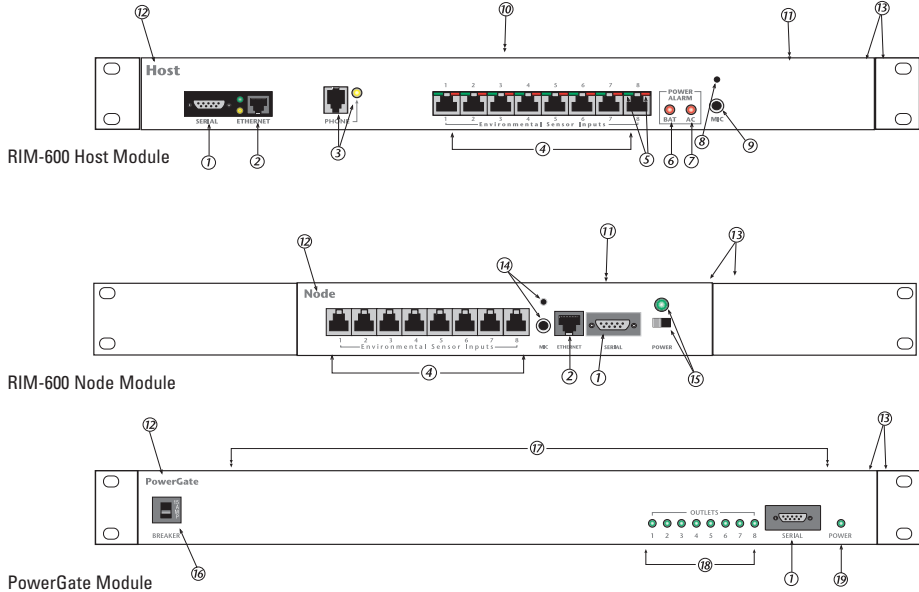- User Manual and software CD included
- UL Listed and CE approved

RIM-600 Node Module:
- Supervised by RIM-600 Host
- Monitoring: same as RIM-600 Host Module
- External connections:
  Sensor connections: (8) RJ-45, 568B
  Ethernet connection: RJ-45, 10/100 Base-T, 10/100 Mbps
  RS-232 connection: DB9, 9600 bps, DTE
  External microphone: 3.5 mm jack, electret condenser
  Power inlet: external transformer, NEMA 5-15P plug
- Power/operation:
  Power supply: see order table
  Power consumption: 10 Watts
  Backup battery: (1) 6V 3.4AH Sealed Gel Cell
  Backup run time: 3.5 hours
  Operating temperature: 32°F (0°C) to 122°F (50°C)
  Operating humidity: 5-90% RH, non-condensing
- Size: 19" EIA x 1 RMU x 7"D (178 mm)
- UL Listed and CE approved

PowerGate Modules:
- Monitor and reset power remotely
- Attaches to RIM-600 Host or Node Module
- Monitoring: power use, reset status for each outlet
- External connections:
  RS-232 connection: DB9, 9600 bps, DTE
  Power inlet: Attached power cord, (1) NEMA 5-15P plug
  PowerGate2 also has (8) IEC-60320, C-14 (1/outlet)
  Use power cord (60078-010) with PowerGate2
  Power outlets: (8) NEMA 5-15R
- Power/operation:
  Power supply: 120 VAC, 60Hz
  Over current protection: circuit breaker(s)
  Operating temperature: 32°F (0°C) to 95°F (35°C)
  Operating humidity: 5-90% RH, non-condensing
- Size: 19" EIA x 1 RMU x 10"D (254 mm)
- UL Listed

CONNECTIONS/INDICATORS

RIM-600 Host Module

RIM-600 Node Module

PowerGate Module

1. DB9 Serial Port. Used for initial setup of the RIM-600 unit and to connect to/from the RIM-600 PowerGate Module.
2. Ethernet Port connects your RIM-600 to your network.
3. Telephone jack connects your RIM-600 Host to the telephone network. The yellow phone status LED shows if the phone line interface is in use.
4. Eight environmental inputs support all of the RIM-600 sensors with standard RJ-45 connectors.
5. Red and green lights show the real-time alarm status of the environmental inputs.
6. Battery alarm indicator shows the status of the internal battery backup system.
7. AC power alarm indicator shows the status of the AC power line into which the RIM-600 is plugged.
8. Internal microphone for sound level alarming and remote listen-in.
9. Microphone jack for attachment of a remote microphone for sound level alarming and remote listen-in.

10. The RIM-600 includes a standard PC-type grounded power cord.
11. Internal battery backup holds operation for several hours after utility power has been interrupted.
12. Identifies your RIM-600 unit as the main Host, Node or PowerGate Modules.
13. Rack-mountable 1 RMU high, 19" EIA mounting configuration. The RIM-600 can also be mounted on a wall with the RIM-600 Host/Node Wall–Mount Kit purchased separately.
14. Built-in mic and external microphone jack in Node Module are for detecting sound level alarms.
15. Power on/off switch and green LED power indicator on the Node Module.
16. Circuit breaker on the PowerGate Module.
17. Eight power outlets on the back of the PowerGate Module.
18. Eight LEDs, indicating the on/off status of each outlet.
19. LED indicates that the PowerGate Module is plugged in and receiving power.

ORDERING INFORMATION

Remote Infrastructure Management (RIM-600) System		
Part Number	Description	Shipping Weight
60000-001	Host, 100-250 VAC, 50-60 Hz	14 lb (6.4 kg)
60000-102	International Host, 100-250 VAC, 50-60 Hz, shipped without power cord	14 lb (6.4 kg)
60001-001	Node, 120 VAC, 60 Hz	7 lb (3.2 kg)
60001-002	Node, 100-240 VAC, 50-60 Hz, with power cord	7 lb (3.2 kg)
60001-102	International Node, 100-240 VAC, 50-60 Hz, shipped without power cord	7 lb (3.2 kg)
60075-001	Wall-Mount Kit	2 lb (0.9 kg)

Note: Host Module includes a users manual and configuration software CD. Node module 60001-002 includes an auto sensing power transformer with an IEC-320, C-14 power inlet and detachable power cord with a NEMA 5-15P plug.

PowerGate Module		
Part Number	Description	Shipping Weight
60045-001	PowerGate, 1 Power Connection, 8 Outlets	14 lb (6.4 kg)
60046-001	PowerGate2, 9 Power Connections, 8 Outlets	14 lb (6.4 kg)
60078-010	PowerGate2 Power Cord, IEC to NEMA 5-15P, 10'L (3 m)	1 lb (0.5 kg)

Note: PowerGates allow you to reset power to each outlet. Power connections are 120 VAC, 60 Hz. PowerGate shares power across all outlets. Maximum combined UL approved power output is 12A. PowerGate2 has 1 power connection per outlet. Maximum power output is 10A on outlets 1 and 5 and 4A on all other outlets. Each PowerGate includes a 6'L (1.8 m) null modem cable.

SENSORS

Room Temperature Sensors

Monitor temperature in the room or cabinet.
- Range of measurement: see order table
- Humidity: 5% to 90% RH
- Sensor type: solid state IC
- Accuracy: ± 3°
- Connection: RJ-45
- Housing: white plastic
- Mounting: wall, flat surface or single-gang box
- Indoor use only
- Display: digital, two-digit (select models)

Room Temperature Sensors		
Part Number	**Description**	**Shipping Weight**
60010-001	Range 5°F to 122°F, No Display	1 lb (0.5 kg)
60010-002	Range -15°C to 50°C, No Display	1 lb (0.5 kg)
60011-001	Range 32°F to 95°F, With Display	1 lb (0.5 kg)
60013-001	Range 0°C to 50°C, With Display	1 lb (0.5 kg)

Note: Use bracket (P/N 60075-710) for rack-mounting.

Miniature Temperature Sensor

Monitor temperature in a cabinet.
- Range of measurement: see order table
- Humidity: 5% to 90% RH
- Sensor type: solid state IC
- Available preset to °F or °C
- Accuracy: ± 3°
- Connection: RJ-45, includes 7'L (2.1 m) cable
- Housing: black plastic
- Mounting: flat surface via included double-back tape
- Size: 2.2"W x 1.4"H x .6"D (56 mm x 36 mm x 15 mm)
- Indoor use only
- No display

Miniature Temperature Sensor		
Part Number	**Description**	**Shipping Weight**
60012-007	Range 5°F to 140°F	1 lb (0.5 kg)
60012-057	Range -15°C to 60°C	1 lb (0.5 kg)

Water Detection Sensor

Monitor for the presence of water.
- Sensing method: Conductivity
- Sensor: polymer core cable with sensing wire 10'L (3 m)
- Connector: RJ-45 (daisy chain up to three sensors)
- Housing: black plastic with mounting ears

Water Detection Rope, 10'L (3 m)
- Extend the reach of the water detection sensor
- Add up to 10 ropes in-line with each Water Detection Sensor

Water Detection Sensors		
Part Number	**Description**	**Shipping Weight**
60032-010	Water Detection Sensor with 10'L (3 m) Water Detection Rope	1 lb (0.5 kg)
60072-001	Additional 10'L (3 m) Water Detection Rope	1 lb (0.5 kg)

Note: Expand sensor capability by daisy chaining up to three sensors or adding up to 10 ropes. Use sensor mounting panel (P/N 60075-720) for rack mounting.

Humidity Sensor

Monitor humidity in the room or cabinet.
- Range of measurement: 0-100% RH
- Temperature: 32°F to 122°F (0°C to 50°C)
- Accuracy: ± 5%
- Connector: RJ-45
- Housing: white plastic
- Mounting: wall, flat surface or single-gang box
- Indoor use only
- No display

Humidity Sensor, With Display

Monitor humidity in the room or cabinet.
- Range of measurement: 5-95% RH
- Temperature: 32°F to 158°F (0°C to 70°C)
- Accuracy: ± 3%
- Connector: RJ-45
- Housing: white plastic
- Mounting: wall, flat surface or single-gang box
- Indoor use only
- Display: digital, two-digit

Humidity Sensors		
Part Number	**Description**	**Shipping Weight**
60030-001	Room Humidity Sensor, No Display	1 lb (0.5 kg)
60031-001	Room Humidity Sensor with Display	1 lb (0.5 kg)

Note: Use bracket (P/N 60075-710) for rack-mounting.

Smoke Detector

Monitor for the presence of high heat and smoke.
- Sensitivity: 2.0 ± .37% to .39% /ft
- Contact Rating: 2 Amp, 28 VDC or 120 VAC resistive
- Heat Sensor rating: Fixed 135°F (57°C) rate of rise > 15°F/min. (8.3°C/min)
- Operating voltage: 8.5 VDC to 33 VDC, 10% max. ripple
- Maximum ambient temperature: 100°F (37.8°C)
- Power-up time: 15 seconds
- Housing: white plastic, 6.1" (155 mm) diameter x 1.9" (48 mm) high
- Mounting: wall, flat surface or single-gang box

Smoke Detection Sensors		
Part Number	**Description**	**Shipping Weight**
60062-007	Smoke Detector with 7'L (2.1 m) Cable	3 lb (1.4 kg)

Power Monitoring Sensor

Monitor voltage levels on power circuits.
- Range: 0 VAC to 250 VAC, 50/60 Hz
- Accuracy: ± 2%
- Power connector: IEC-60320, C-14, power inlet
- Includes a 6'L (1.8 m) C-13 to NEMA 5-15P or C-13 to C-14 power cord
- Connector: RJ-45
- Housing: black plastic with mounting ears

Power Monitoring Sensors		
Part Number	**Description**	**Shipping Weight**
60040-001	Power Monitoring Sensor with C-13 to NEMA 5-15P Power Cord	1 lb (0.5 kg)
60040-002	Power Monitoring Sensor with C-13 to C-14 Power Cord	1 lb (0.5 kg)

Note: Use sensor mounting panel (P/N 60075-720) for rack mounting.

SENSORS

Motion Sensor

Monitor for movement in the room.
- Sensing method: infrared
- Sensor: passive, dual-element
- Connector: RJ-45 (includes 7'L (2.1 m) cord)
- Housing: white plastic
- Adjustments for sensitivity, LED display and Pulse count
- Indoor use only
- Mounting: flat surface

Motion Detection Sensors		
Part Number	**Description**	**Shipping Weight**
60061-007	Passive Infrared, with 7'L (2.1 m) cord	1 lb (0.5 kg)

Normally Open/Normally Closed Dry Contact Bridge

Monitor a device equipped with a relay output that functions as an alarm. Senses a definite yes/no input from a normally open or normally closed output, and sends an alarm when the yes or no condition is sensed.
- Input: normally open or normally closed (switchable)
- Source/sense voltage: 14 VDC
- Source/sense current: 10 mA
- Connector: RJ-45
- Temperature: 32°F to 122°F (0°C to 50°C)
- Housing: black plastic with mounting ears
- Indoor use only
- No display

Dry Contact Sensors		
Part Number	**Description**	**Shipping Weight**
60050-001	Dry Contact Bridge (N/O,N/C)	1 lb (0.5 kg)

Note: Use sensor mounting panel (P/N 60075-720) for rack mounting.

4-20 mA Dry Contact Bridge

Monitor a maximum or minimum threshold; for example, the amount of fuel or water in a tank. Senses a range of inputs from a corresponding 4-20 mA Transducer, and sends an alarm when a specific threshold is reached between 0% (4 mA) and 100% (20 mA).

4-20 mA Dry Contact Bridge		
Part Number	**Description**	**Shipping Weight**
60051-001	Dry Contact Bridge (4-20mA)	1 lb (0.5 kg)

Note: Use sensor mounting panel (P/N 60075-720) for rack mounting.

Door Open/Closed Sensors

Check door open or closed status.
- Single and dual door version
- Use dual door sensor for equipment cabinets
- Magnetic reed switch
- Connects directly to a host or node module
- Single door sensor includes one door sensor, a 7'L (2.1 m) RJ-45 cable and a 25'L (7.6 m) sensor cable
- Dual door sensor includes two door sensors, a 7'L (2.1 m) RJ-45 cable and (2) 10'L (3 m) sensor cables

Door Open/Closed Sensors		
Part Number	**Description**	**Shipping Weight**
60052-001	Single Door Sensor, Magnetic Reed	1 lb (0.5 kg)
60052-002	Dual (Front/Rear) Door Sensor, Magnetic Reed	1 lb (0.5 kg)

Cables and Accessories

Use patch cables to attach sensors to the RIM-600 Host and Node Module. Use null modem cables to attach PowerGate Modules to the RIM-600 Host and Node Modules. Optional mounting brackets let you attach sensors to 19" EIA racks or cabinets.

Cables and Accessories		
Part Number	**Description**	**Shipping Weight**
60070-007	Patch Cable, RJ-45, 7' L (2.1 m)	1 lb (0.5 kg)
60070-014	Patch Cable, RJ-45, 14' L (4.3 m)	1 lb (0.5 kg)
60070-025	Patch Cable, RJ-45, 25' L (7.6 m)	1 lb (0.5 kg)
60074-001	RJ-45 F/F Coupler Kit (4)	1 lb (0.5 kg)
60071-006	Null Modem Cable, 6' L (1.8 m)	1 lb (0.5 kg)
60075-001	Host/Node Wall-Mount Kit	2 lb (0.9 kg)
60075-710	Temp/Humidity Sensor Rack-Mount Bracket	1 lb (0.5 kg)
60075-720	Sensor Mounting Panel, 19"W x 1 RMU	2 lb (0.9 kg)
60087-001	User Solutions Manual	1 lb (0.5 kg)
60088-002	ConsoleView Software CD	1 lb (0.5 kg)

Note: Sensor mounting panel (P/N 60075-020) supports three sensors.

Remote Infrastructure Management (RIM-600) Solution Bundle

Everything you need to begin monitoring humidity and temperature for up to four cabinets. Includes (1) Remote Infrastructure Management (RIM-600) Host Module, (3) Miniature Temperature Sensors, (1) Room Temperature Sensor with °F display, (1) Humidity Sensor, (1) Temp/Humidity Sensor Rack-Mount Bracket, (4) 7'L (2.1 m) RJ-45 Patch Cables and (1) RJ-45 F/F Coupler Kit. For more detailed information on the RIM-600 Solution Bundle see the application sheet at www.chatsworth.com/rim600.

Remote Infrastructure Management Solution Bundle		
Part Number	**Description**	**Shipping Weight**
F600-0	Environmental Monitoring Solution Bundle	25 lb (11.3 kg)
F600-1	International Environmental Monitoring Solution Bundle, includes °C Temp sensors and shipped without power cords	25 lb (11.3 kg)

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