# EMX SMART RACK CONTROLLER


## COMPREHENSIVE RACK MONITORING

**Easy to use and easy on your budget**

Every data center has some method of monitoring temperature even if it is just a thermometer or a thermostat on a data center wall. But today, that is hardly considered a best practice. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) recommends measuring the cool air entering IT equipment near the bottom, in the middle and near the top of each IT rack.

Today, many data center managers want to equip their racks with ways to detect water, smoke or when a cabinet door is opened. Some want to install cameras for security so they can spot changes or remotely view the physical environment.

Now it is easy to add simplified yet comprehensive environment monitoring to your IT racks. Raritan's EMX offers up to eight Raritan sensor ports, eight feature ports for Raritan's dynamic asset-tracking solution, and eight RS-485 ports, all in a 1U form factor.

## WHY DO YOU NEED RACK MONITORING?

- Do you want real-time, accurate visibility into your IT asset management inventory?
- Do you want to install temperature sensors at your rack in accordance with ASHRAE guidelines?
- Do you want to locate a USB webcam at your rack?
- Do you want to instrument your rack with contact closure sensors so you can detect when a cabinet door has been opened?
- Do you want to aggregate, report and analyze sensor data across all your data center racks globally?

## FEATURES:

Raritan's environmental rack controller is an IP-based appliance that allows you to use any of Raritan's sensors such as temperature, humidity, air pressure and airflow.

- Works with Raritan's Power IQ® energy management software Up to 32 sensors per EMX2-111
- Up to 128 sensors per EMX2-888
- Wired or wireless network options
- USB camera option

## BENEFITS:

Raritan's rack monitoring solution helps you manage the physical environment of your rack. With this solution and the appropriate sensors you can:

- Minimize the hours needed to track IT assets, thereby saving time and money
- Ensure uptime by monitoring racks for possible hot spots
- Save on cooling costs by confidently raising data center temperatures
- Maintain cabinet security with USB webcams and contact closure sensors
- Improve data center uptime by receiving environment alerts
- Optimize strategic and tactical decision making for the IT environment by tracking IT changes and growth in real time

Şerifali Mah. Bayraktar Bulvarı Adil Sokak No: 36
Y. Dudullu Ümraniye / İstanbul

E: info@valen.com.tr
W: valen.com.tr

T : +90 216 348 82 58
F : +90 216 447 52 98

# HOW DOES IT WORK?

The Raritan EMX is a central connection point for all of Raritan's environment sensors. The EMX LCD display and remote GUI provide access to sensor readings, including temperature, humidity, asset tags, airflow, air pressure and contact closure. These readings can be viewed with a web browser or the information can be passed on to energy management and monitoring software tools.

With the asset management capability, you can remotely track IT equipment locations after tagging the IT devices electronically. This feature is especially useful when there
are hundreds of IT devices to administer.

The asset management solution includes:

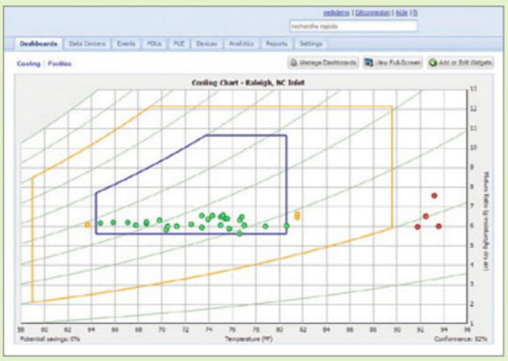
- **Raritan Asset Management Tags (AMT):** An electronic asset tag with a unique ID attaches to an IT device
- **Raritan Asset Management Sensors (AMS):** The asset sensors mounted on your racks monitor and provide location information on each asset
- **Raritan EMX:** A Web-based EMX GUI allows you to remotely see the location of each IT device

With a webcam connected to the EMX USB port, you can remotely view real-time images or video inside the data center from anywhere. The USB port can also support other USB devices like Wi-Fi networking.

A standards-based SNMP interface can be used by any third-party data center management system. The SNMP interface offers the following features:

- Support for SNMPv1, v2 and v3 GETs/SETs/TRAPs
- The ability to configure and set values like thresholds through SNMP and receive TRAPs when sensors cross set points
- Read all asset tag IDs per rack and their physical location
- Receive TRAPs in case an asset tag is added, removed or moved
- Set an RGB color LED indicator for each rack unit ("U") slot on the AMS. This can be used to implement a custom color indicator-controlled change management process, e.g., a red, blinking LED indicates a server replacement request

## COMPATIBLE WITH MOST DCIM MONITORING SOFTWARE TOOLS



## POWER IQ ENERGY MANAGEMENT SOFTWARE

Using Raritan's environment sensors, EMX acts as a gateway to feed data such as temperature, humidity, airflow, air pressure and contact closure information to energy management and data center monitoring software. You can create a variety of reports and charts and get alerts when thresholds are crossed. With the unique cooling charts you can understand if you are compliant with manufacturers' and industry-accepted recommendations, and project how much you can save by increasing room ambient temperatures.

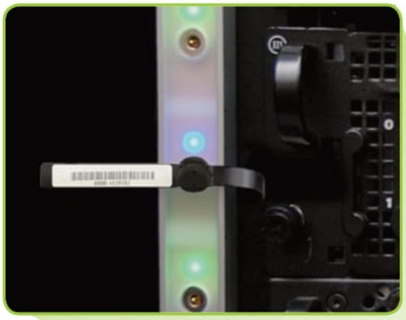
Şerifali Mah. Bayraktar Bulvarı Adil Sokak No: 36
Y. Dudullu Ümraniye / İstanbul

E: info@valen.com.tr
W: valen.com.tr

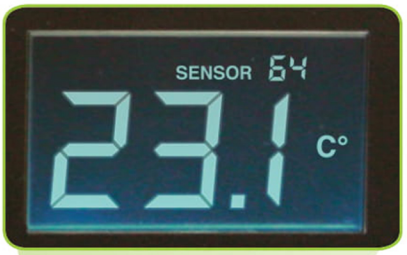
T : +90 216 348 82 58
F : +90 216 447 52 98

# A TOTAL SOLUTION TO MANAGE AND MONITOR ALL ASPECTS OF YOUR RACK ENVIRONMENT

Feature ports support Raritan's electronic asset tagging to track assets in 1U rack increments



LCD display for at-the-rack monitoring of all sensor data





Sensor ports for temperature, humidity, air pressure, airflow and contact closure sensors


USB port supports USB Wi-Fi networking and USB webcams

Şerifali Mah. Bayraktar Bulvarı Adil Sokak No: 36
Y. Dudullu Ümraniye / İstanbul

E: info@valen.com.tr
W: valen.com.tr

T : +90 216 348 82 58
F : +90 216 447 52 98

# SMART CONTROLLER AND SENSOR OPTIONS FOR DATA CENTERS OF ALL SIZES

| Model | Description |
|---|---|
| EMX2-111 | Smart rack controller with 1 RJ-12 sensor port, 1 RJ-45 feature port for AMS, 1 RJ-45 RS-485 port, 1 USB-A port, 1 USB-B port, 1 RJ-45 Ethernet port, 1 DB-9M console/ modem, LCD display |
| EMX2-888 | Smart rack controller with 8 RJ-12 sensor ports, 8 RJ-45 feature ports for AMS, 8 RJ-45 RS-485 ports, 2 USB-A ports, 1 USB-B port, 1 RJ-45 Ethernet port, 1 DB-9M console/ modem, 2 contact closure, LCD display |

To see Raritan's sensor options visit www.raritan.com/sensors


1. Single airflow sensor
2. Dual contact closure sensor
3. Single combo differential pressure and temperature sensors
4. Single combo temperature and humidity sensors
5. Single temperature sensor

Şerifali Mah. Bayraktar Bulvarı Adil Sokak No: 36
Y. Dudullu Ümraniye / İstanbul

E: info@valen.com.tr
W: valen.com.tr

T : +90 216 348 82 58
F : +90 216 447 52 98