

# R175 Rack PDU Sensor for Raritan PX4 Series Products

Designed for integration with Raritan PX4 intelligent PDUs, R175 sensor enables “wire-free” power monitoring over the RF Code radio frequency infrastructure.



**Reduced cost of ownership**—cost of IP address is eliminated



**Real-time monitoring** of PDU power metrics, alerts, alarms and warnings



**One-way flow of data** for enhanced security



**Per phase status & metrics, including:**  
Phase voltage  
Phase amperage  
Phase power  
Phase energy use



**Plug and play** into one of the ethernet ports on the PDU for “wire-free” power monitoring

**Auto configuration** of up to 2 linked PDUs

**Compatible with Raritan PX4 intelligent PDUs**

**Integrates with RF Code’s CenterScape platform**

RF Code’s R175 power sensor offers wireless communication for use in data centers, equipment room racks and cabinets that provides continuous, automated monitoring of each rack PDU.

Power metrics and PDU information are transmitted utilizing RF Code’s “wire-free” radio frequency infrastructure via the RPDU sensor. This results in a comprehensive power monitoring solution made available in RF Code’s CenterScape platform.

The R175 RPDU sensor plugs into one of the Ethernet ports of the PDU and identifies the model and capabilities then relays that information to CenterScape. The R175 RPDU sensor can monitor individual PDUs or up to two linked PDUs. This solution enables customers to monitor power metrics from each PDU at a dramatically reduced cost of ownership by reducing wires/cables, IP address allocation and network administration.

Designed for use with rack-mounted PDUs, the R175 RPDU sensor features a simple plug-and-play 433 MHz RF transmitter for quick and easy installation. Simply plug the sensor’s locking RJ45 connector into one of two Ethernet ports on the PDU and attach the sensor to the top of the rack (this

ensures clear signal transmission in metal-dense data center environments).

Each sensor broadcasts its unique ID and a portion of the PDU data every 10-seconds using RF Code’s patented communication protocol. All power data collected from the PDU flows via the RF Code readers to the RF Code CenterScape platform.

The software presents all the collected power parameters and computes additional attributes from this data to provide a complete picture of power utilization, power efficiency and power status.

The R175 is DC powered via an AC/DC adapter or USB power from the PDU. An internal battery supports alerts if DC power is lost, and beacons periodically to maintain connectivity with CenterScape. The R175 will continue to beacon for over 4 years using battery backup. A low battery alert is provided to indicate when the battery needs to be replaced.

In operational mode the R175 RPDU sensors only receive information from the PDUs. No outlet control or other actions are possible through the sensor.



# R175 RPDU

## Sensor Specifications

### General Information

PDU model number  
PDU serial number  
PDU firmware revision  
PDU message loss  
PDU input phase

### Alarm Information

Unit disconnect status  
Unit communication status  
Phase voltage and current alarms  
High in-feed load (80% or more of capacity) alarm  
Outlet current alarms  
Sensor low-battery notification  
Over current protection device –  
breaker-tripped alarm

### Regulatory

FCC Compliance FCC Title 47 CFR Part 15; FCC ID: P6FX  
CE Compliance  
RED 2014/53/EU Article 3.1(a): Health and Safety  
RED 2014/53/EU Article 3.1(b): Electromagnetic  
Compatibility  
RED 2014/53/EU Article 3.2: Radio Spectrum  
CE Marked  
WEEE Compliant

### System Requirements

RF Code CenterScape version 1.11 and above  
\*\*Insert FW version of PDU here

### Power Information

Per phase active power in watts  
Per phase apparent power in Volt-Amps (V-A)  
Per phase active energy in watt-hours  
Per phase apparent energy in V-A-Hours  
Per phase current load balance  
Per phase power factor  
Per outlet average root mean square (RMS) current (A)  
Per outlet apparent energy (VA-Hours) \*  
Per outlet active energy (watt-hours) \*  
Per line current flow (A)

### Computed Attributes in CenterScape

Per branch voltage (V)\*  
Per branch current flow (A) \*  
Per branch energy (kVA-Hours) \*  
Per outlet power factor\*  
Power allowance  
Available current capacity per phase  
Total PDU active and apparent power  
Rack power redundancy