# PACKETPOWER

**OEM Solutions:** Embeddable micro-sized power and environmental monitors with integrated wireless networking

#### Primary radio path Monitoring nodes Monitoring

Packet Power Network Architecture Advantages

The convenience of wireless with the reliability of a wired network. Packet Power's self configuring mesh network delivers all the advantages of wireless connectivity while eliminating the traditional difficulties associated with wireless propagation and system configuration. Using a "mesh topology," the system routes data from one monitor to another, finding the optimal path for every transmission. Unique to Packet Power and designed for data centers, the resulting wireless network is the most robust wireless monitoring platform available. Once installed, the network is fully self-managing and automatically adjusts as monitors are added or removed.

## Why customers choose Packet Power wireless solutions



Packet Power devices have been used in the most challenging critical environments with over 20,000 devices in operation. Customer's recognize Packet Power as "the wireless solution that really works".



The ideal architecture for high device count environments, the system can accommodate a virtually unlimited number of wireless nodes. Adding a node is easy, with the wireless network automatically recognizing and configuring new devices.

### DATA AGGREGATION

Il data from monitors is aggregated at the Gateway and immediately visible with no configuration needed. Open protocols (SNMP, Modbus TCP/IP, XML) allow the data to be acquired by just about any system. The available cloud or local monitoring application is ideal for managing the data for those looking for a plug and play monitoring solution.

# IMPENETRABLE Packet Power devices use a propri

SECURE AND

etary node to node wireless communications protocol that is invisible to WiFi, Zigbee and other standard networks. In addition, the option to encrypt wireless traffic and fully segregate the monitoring network provides comprehensive security.



#### **REDUCED INFRASTRUCTURE COSTS**

Choosing Packet Power means much lower installation and deployment costs, no device commissioning issues, and the freedom to deploy devices exactly where they are needed. Hardware costs are often far lower than hardwired networks and traditional wireless systems.

## **OEM Solution Components**

#### **THREE PHASE POWER MONITOR**



- Accommodates external split core and solid core CTs for any current
- Monitored Parameters: Voltage (V), Current (A), Power (W), Reactive Power (VAR / VA), Power Factor, Energy Usage (Wh), Phase Shift, Frequency (Hz), THDI, THDV, Net Metering
- Multiple meter configurations including 3 x 1 phase, L-L, L-N and true three phase

#### **ETHERNET GATEWAY**

- Receives information from up to 200 wireless monitoring nodes and transfers information on the network
- Scale to thousands of nodes per facility just by adding gateways
- Supportswirelessfirmwareupdatestoall network devices
- 128 bit Encryption

#### **ADDITIONAL SOLUTIONS**

#### Smart Power Cable Monitors embed precise power and

temperature monitoring into a power cord format.



- 900 MHz and 2.4 GHz capable (global frequency capabilities)
- Transmission Range: 10-50m typical
- Available with integrated display<sup>1</sup>
- Small form factor: 72mm x 43mm x 29mm
- · SNMP, XML and ModBus TCP/IP output
- Indicator status lights
- PoE or line powered

#### **Environmental monitoring**

- · Up to 12 temperature sensors
- · Additional sensor types available



#### · 120-415V (50/60 Hz)

- High accuracy available (+/-0.5%)
- Internally fused for line voltages
- No external antenna required
- Core dimensions: 2.8" x 1.6" x 1.4"
- Overall Dimensions: 4.2" x 1.6" x 1.8
- Global certifications (UL, CE and more) and global radio operating frequencies (900 MHz and 2.4 GHz)
- · Integrated LED display



#### **EMX portal**

Available either as a quickly deployed cloud-based service or as software you install within your own network.

		Miss	Mission control Home Manage Analyze Dow					
Energy Use by Customer								
ower cables								
Server tex node	[A] % max. by phase	[A] by phase	[W] % max. by phase	[W] by phase	[W] total all phases	[V] by phase	Power Factor by phase	
	A: 33% B: 48% C: 19%	A: 9.86 B: 14.39 C: 5.59	30%	A: 1038.5 B: 1573.8 C: 631.7	3244.1	A: 105.3 B: 109.4 C: 113	A: 1 B: 1 C: 1	
8900-0000-0000-0046	A: 33% B: 46% C: 21%	A: 9.83 B: 13.87 C: 6.2	30%	A: 1038.8 B: 1520 C: 702.4	3261.1	A: 105.6 B: 109.6 C: 113.2	A: 1 B: 1 C: 1	

#### PACKET POWER IN THE DATA CENTER



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