



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Wzzard™ Energy Monitoring Starter Kit

Wzzard Mesh Wireless Sensor for Industrial Applications

Model BB-WSK-NRG-2

B+B SMARTWORX

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- + Monitor current consumption to reduce energy costs
- + Snap & go set up - no downtime, disruption or wiring/cable runs
- + Built-in Node-RED™ software tool for easy deployment
- + Smartmesh IP wireless mesh for point-to-point self-healing reliability; more resilient as more nodes are added
- + Easily scalable at any time to thousands of sensors
- + IP67 indoor/outdoor rated (Wzzard node)

## LOWER ENERGY COSTS THROUGH DATA-DRIVEN PROCESS OPTIMIZATION

### Monitor Energy Use of Machines, Circuits & Processes

Today's leading manufacturers and facilities managers have energy reduction programs in place to reduce input costs and improve their environmental footprint. But, often they are managing those programs with nothing more than a monthly utility bill and no insight into energy use or trends of individual equipment, processes or circuits. Installing individual energy meters into existing equipment carries a high cost of installation and is disruptive to ongoing operations.

The Wzzard Energy Monitoring Starter Kit provides a non-intrusive, easily installed solution for monitoring current consumption of your equipment, processes or panels without disrupting your existing operations.

- Includes everything you need to monitor current consumption of up to three inputs - one three-phase load or three unique loads.
- No equipment downtime, simply snap on the current clamps connected to the wireless Wzzard node and provide an Ethernet connection to the gateway.
- Dashboard, data trendlines, email/SMS alerts and data logging capability.
- Easily expand the Starter Kit system simply by adding additional Wzzard nodes and sensors to your existing gateway.
- Fast deployment of Proof of Concept and Pilots. Easy to scale to hundreds or thousands of inputs from one location or multiple locations.

### Easy to Deploy

- The Wzzard mesh wireless sensor node is battery powered and can be easily deployed without any special wiring. No need to install expensive or intrusive wiring.
- Clamp-on current transducers are easy to install without disrupting equipment. Simply clamp them over the hot power lead supplying equipment or a panel.
- Wzzard's 2.4GHz wireless mesh technology continuously optimizes its channel selection to eliminate multipath interference, providing best-in-class reliability in difficult RF environments.
- Simple, cloud-based configuration of the gateway makes it easy to deploy and manage one device or many.

### Scalable

- Grow from monitoring one machine or circuit to many simply by adding sensor nodes and making simple dashboard edits
- Or expand into a multi-site system integrated into your preferred software platform. The popular MQTT protocol and JSON data format makes it easy to integrate into third party software applications.
- Use the built-in Node-RED to create and customize your own applications without any advanced programming skills.

### Rugged & Reliable

- Wzzard mesh wireless sensor node is IP67, -40 to 80°C, rated for indoor and outdoor industrial use, no external enclosure required.
- Advanced SmartMesh IP wireless mesh protocol provides excellent point-to-point wireless reliability and becomes more resilient as more nodes are added to the system.

## ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BB-WSK-NRG-2	Wzzard Energy Monitoring Starter Kit

### Included Hardware

- (1) Wzzard Mesh Wireless Sensor Node Model# WSD2M31010 (3 analog inputs, M12 connector, external antenna) (Supports up to 3 attached sensors.)
- (3) JC10F50-V, 50A clamp-on current sensors
- (1) 520-10256-00, M12 cable
- (1) SmartSwarm 342 Ethernet Network Gateway – with Wzzard board.  
(Note: one gateway supports up to 100 wireless sensor nodes.)

### Included Software

Cloud license for SmartWorx Hub device management and configuration tool.

Node-RED flow with Web server for:

- Real time data display.
- Historian trending.
- Visual and email/SMS alerts.
- External data source integration (weather, Twitter feeds, and more).

All product specifications are subject to change without notice.

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## SPECIFICATIONS

Maximum Nodes per Gateway	32
Maximum Polling Rate	10 seconds
Measurement Range	0.3A to 50A
Minimum Reading (at 0 Amps input)	0.3A
Accuracy	+/-2.2%
Wireless Range	Up to 100 meters indoors; Up to 300 meters outdoors, line of sight, 2 meters above ground.

## Node-RED DASHBOARD

