



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™ Refrigeration Monitoring Starter Kit

Wzzard Mesh Wireless Sensor for Commercial Applications

Model BB-WSK-REF-2

B+B SMARTWORX

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ADVANTECH

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- + Monitor refrigeration performance for early fault detection and regulatory compliance
- + Includes everything to monitor chamber temperature, door open/close and current draw
- + Snap & go set up - no downtime, disruption or 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

Prevent waste, maintain quality and prove regulatory compliance through data-driven refrigeration performance monitoring.

Monitor Performance of Your Refrigeration System

Maintaining proper temperature for food and pharmaceuticals is essential for ensuring quality and preventing expensive losses. Adding a remote wireless monitoring system to your refrigerators and freezers provides real time visibility into the status of the goods you are trying to protect. Instant alerts via e-mail or text of any out-of-range temperature or a door left open can mean saving goods that would otherwise spoil.

The Wzzard Refrigeration Monitoring Starter Kit provides a non-intrusive, easily installed solution for monitoring internal and external temperatures, door open/closed and current draw on refrigeration equipment without disrupting existing facility operations.

- Includes everything you need to monitor cooling chamber temperature and door open/close along with current consumption of the compressor and fan.
- No equipment downtime. Simply snap on the current clamps and temperature probe connected to the Wzzard mesh wireless sensor node and provide an Ethernet connection to the gateway.
- Dashboard, data trend lines, email/SMS alerts and data logging capability.
- Easily expand the starter kit system 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 is easily deployed – no need to install expensive or intrusive wiring.
- Included high accuracy temperature sensor can be placed anywhere within the cooling chamber.
- Clamp-on current transducers are easy to install without disrupting equipment. Simply clamp them over the hot power lead.
- Wzzard's 2.4 GHz 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 unit to many simply by adding more 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 make 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 rated for -20 to +70°C operating range, indoor commercial 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-REF-2	Refrigeration Monitoring Starter Kit - includes: 1 - Wzzard mesh wireless sensor node (temperature & humidity) 2 - Clamp-on current sensors 1 - 10K thermistor for temperature inside the chamber 1 - Door open/close sensor 1 - SmartSwarm 342 Gateway

Included Hardware

- (1) Wzzard Temp/Humidity Sensor – 2 analog-in + 1 thermistor input + 1 digital Input
- (2) JC10F50-V 50A Clamp-On Current Sensors – for compressor and fan current.
- (1) BB-WCHCBL Thermistor/Breakout cable.
- (1) BB-WCHMS Door Sensor 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.
BB-WSK-REF-2 Kit_0518ds

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SPECIFICATIONS

GATEWAY/NODE	
Nodes per Gateway	100, maximum
Polling Range	10 seconds, maximum
Wireless Range	Up to 50 meters indoors. Line-of-sight, 2 meters above ground.
Operating Range	-20 to +70 °C
THERMISTOR SENSORS	
Supported Range	-40 to +85 °C
Resolution	0.05 °C
Accuracy	Typical ± 0.3 °C @ 25 °C
CURRENT SENSORS	
Measurement Range	0.3 to 50 A
Minimum Reading (at 0 Amps Input)	0.3 A
Accuracy	± 2.2%

Node-RED Dashboard

