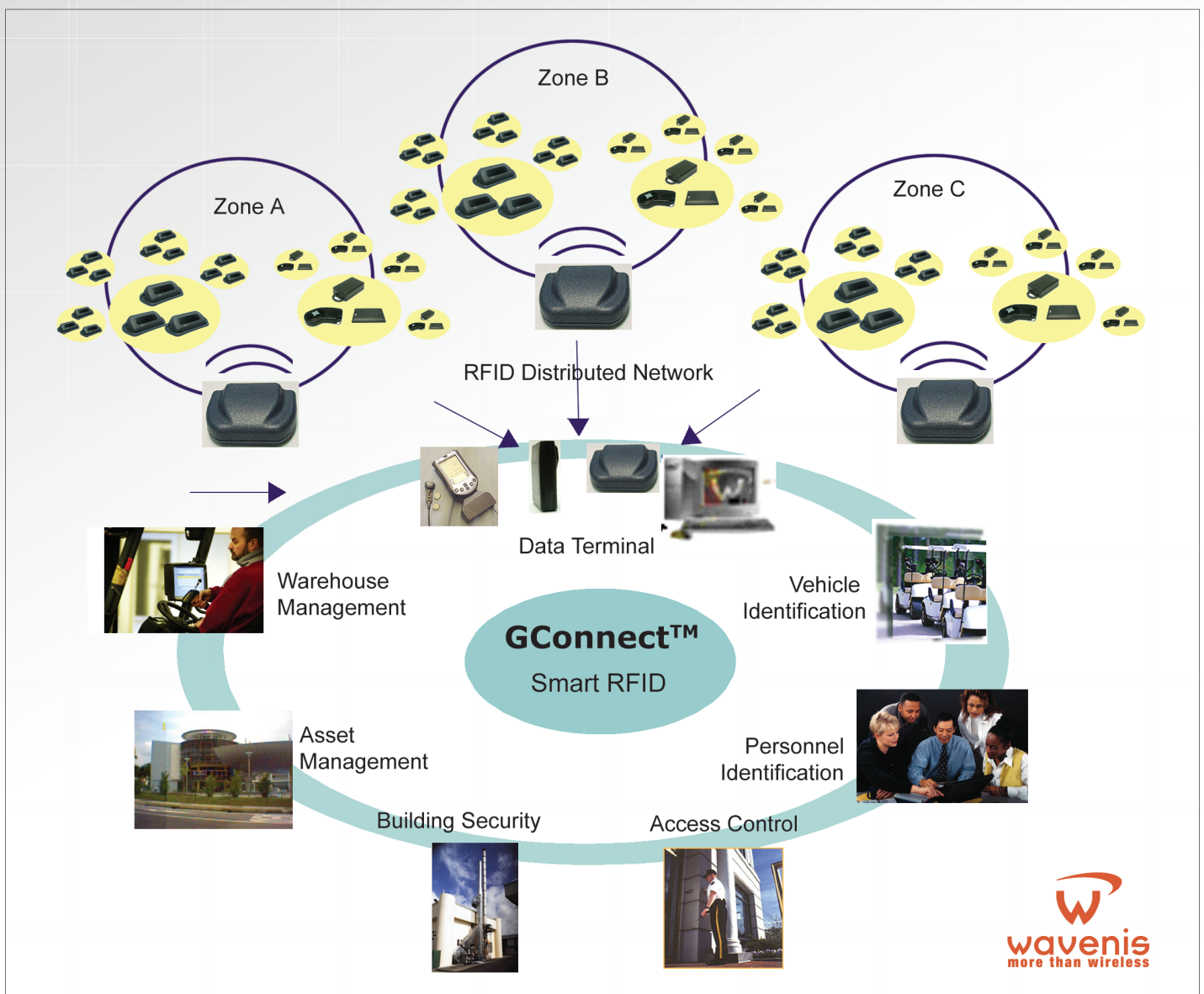# W-8/9 Series ULP Long Range Active RFID Tags & Readers

GConnect™ W-8/9 Series Active RFID products represent a quantum leap in the present state of global active RFID initiatives. GConnect™ comprises two product lines: GTag™ for active RFID tags, and GLink™ for active RFID readers and repeaters that are fully compatible with GTag™.

Using Ultra-Low-Power (ULP), GConnect™ W-8/9 Series' range of RFID tags are supported by an internal battery for autonomous drop-and-deploy operations. Based on ULP and frequency hopping spread spectrum (FHSS), GConnect™ W-8/9 Series is designed for extremely long reading ranges, high reliability and flexible wireless networking capabilities.

GTag™ W-8/9 Series operates on a typical detection range of up to 30 meters indoors and 50 meters line-of-sight (LOS) outdoors, with the minimal power of 0.03mW. It operates within a range of 50 meters indoors and 100 meters LOS outdoors with the maximum power of 3mW. The devices are constructed with metal-friendly RF antenna circuitry and casing. These combined attributes allow GTag™ to be used in many diverse industrial and commercial applications where ruggedness and coverage are crucial. Some examples are supply chain management and the tagging of personnel, assets and vehicles.

Typical applications include:
· Asset Management
· Automatic Vehicle Identification
· In-Yard Tracking
· Inventory Control

· Personnel Identification/Tracking
· Access Control
· Personal Trigger (Panic Button)
· Location Intelligence

Zone B

Zone A

Zone C

RFID Distributed Network

Data Terminal

Warehouse Management

Vehicle Identification

GConnect™
Smart RFID

Asset Management

Personnel Identification

Building Security

Access Control

wavenis
more than wireless

W-8/9 Series ULP Long Range Active RFID Tags & Readers

Model Name / Specifications		GTag-WI830B/ GTag-WI930B	GTag-WI831B/ GTag-WI931B	GTag-WP831B/ GTag-WP931B	GLink-WL830D/ GLink-WL930D	GLink-WL830B/ GLink-WL930B
Description		ULP Long Range Industrial Tag	Motion Sensing Industrial Tag	Personnel Tag (Card)	High Performance Reader/Repeater	Portable Reader/Repeater
Dimensions	mm	110 x 56 x 25	110 x 56 x 25	85 x 55 x 8	102 x 76 x 35	190 x 127 x 45
(L x W x D)	inches	4.33 x 2.21 x 0.99	4.33 x 2.21 x 0.99	3.35 x 2.17 x 0.32	4.02 x 2.99 x 1.38	7.49 x 5.00 x 1.77
Weight	grams	80	81	22	104	646
	ounces	2.81	2.85	0.77	3.65	22.70
Power Source		3.6V Lithium-thionyl Chloride Battery, non-replaceable	3.6V Lithium-thionyl Chloride Battery, non-replaceable	3V CR3032 Lithium Battery, non-replaceable	DC 5V	1x 3.6V AA Lithium-thionyl Chloride Battery, replaceable.
Battery Life		2-5 years	2-5 years	1-2 years	———	2-6 months depending on operating condition
Ingress Protection		IP54/IP65	IP54/IP65	———	———	———
Suggested Mounting		Screws on flange / Double-sided Tape / Velcro	Screws on flange / Double-sided Tape / Velcro	Slot for braid attachment / Double-sided Tape / Velcro	Double-sided Tape / Velcro	Brackets
Casing Material		Polyamide 30% Glass Filled	Polyamide 30% Glass Filled	ABS Plastic	ABS Plastic	ABS Plastic
Tag's Default Beacon Rate		5 seconds	5 seconds	15 seconds	———	———
Tag's Memory		2K Bytes (non-volatile), Read/Write	2K Bytes (non-volatile), Read/Write		———	———

GENERAL PRODUCT FEATURES

Environmental Characteristics

• Operating Temperature: -10°C to +70°C

• Storage Temperature: -20°C to +85°C

• Humidity: 5% to 90% (non-condensing)

RF Specification

• Frequency: 868 MHz/915 MHz

• Transmission Range: Extremely long range, which can be controlled through transmission power:
  Indoor - 30m to 100m
  Outdoor LOS - 50m to 100m

• Modulation: GFSK

• Transmission Technique: Frequency Hopping Spread Spectrum (FHSS) 16-channel

• Data Rate: 19.2kbps

• Transmission Power: Default - 0.03mW, Maximum - 3mW

• Certification: EN 300-220-1

• Powered by ultra low power, long range Wavenis wireless technology: www.wavenis.com for more information.

Functional Features

• Transmission Power:	Configurable over-the-air using API/messaging protocol, with 15 levels.
• Radio Range:	Extreme long range, adjustable through transmission power.
• Network Infrastructure:	Uses wireless relay hops to reach data collector or PC. Access points communicate with tags, eliminating wiring.
• Tag Activation:	Tag can be manually activated for use and deactivated to be put into storage.
• API:	SDK available for integration with customized applications.
• Indicators:	LED for identification.
• Interfaces:	GLink-WL830D - 1 x R232