



# WhereLAN III®



SEE MORE. DO MORE.



## WhereLAN III® Features

- ISO 24730-2 sensor capable of one meter Location Accuracy
- Wireless Time Synchronization suitable for Heavy-Industrial Environments
- Low power consumption, 802.3af Power-over-Ethernet compliant, with Wi-Fi backhaul connectivity
- All-weather enclosure designed for indoor/outdoor operation

## WhereLAN III® Sensor

WhereLAN III is the locating and messaging hub of Zebra's Real Time Locating Systems (RTLS) offering based on the ISO/IEC 24730-2 standard. This state-of-the-art sensor receives low power signals emitted by Zebra's active RFID tags, known as WhereTags, up to a distance of 1,750 m. Employing advanced signal processing techniques, WhereLAN III determines the time-of-arrival of a WhereTag signal to sub-nanosecond resolution, resulting in up to one meter location accuracy. This means you can gain visibility of your tagged assets and tightly couple their real-time location into your business operations. WhereLAN III can also be used to process event messages from WhereCall button tags. These tags are used in Industrial Manufacturing to convey parts replenishment requests or task completion events. Due to the Six-Sigma reliability of the WhereTag signal, you can rest assured that the WhereCall event will be detected. WhereLAN III delivers the WhereTag and WhereCall data to Zebra's Visibility Server Software (VSS) stack, which computes the location of tagged assets and delivers actionable and timely visibility information. VSS also provides tools for integrating RTLS data with customer and third party applications. VSS and a network of WhereLAN IIIs provide accurate and timely asset visibility across your enterprise.

WhereLAN III features an IP 55 cast-aluminum enclosure, which allows the product to be deployed in indoor and outdoor environments, such as warehouses, heavy-industrial manufacturing plants, vehicle and trailer yards, and Maritime shipyards. The product features novel signal processing techniques that provide full locate without the need for dedicated time synchronization wiring. WhereLAN III can automatically configure and dynamically adjust to changing Radio Frequency environments while maintaining wireless time synchronization. Its configuration does not require complex RF spectrum surveys nor periodic calibration. These advanced features simplify the design and installation of the infrastructure, allowing you to focus on running your business instead of running an RTLS network.

WhereLAN III supports IEEE 802.3af Power-over-Ethernet (PoE). It may be ordered with integral Wi-Fi client capability supporting the transport of the received WhereTag and standard management data across any industry standard 802.11 b/g Wi-Fi network. The product consumes just 12 Watts, enabling a small and economical solar-powered option for remote deployments.

When robust and accurate asset visibility is vital to your business, WhereLAN III is your product of choice and Zebra your global partner.

# SPECIFICATIONS

## WHERELAN III®

### Model

LOS-5000

### Location

#### WhereTag Signal Detection Rate

Up to 300 detections per second

#### WhereTag Signal Time of Arrival Capture

Within 1 nanosecond

#### Location Accuracy

0.9 m R50, 1.6 m R95

### Environmental/Physical/Power

#### Operating and Storage Temperature

-40° C to +55° C (-40° F to +131° F)

#### Environmental Sealing

IP55 per IEC60950, Protected against dust and water jets\*

#### Height

25.9 cm (10.2 in)

#### Width

31.0 cm (12.2 in)

#### Depth

4.3 cm (1.7 in)

#### Weight

3.3 kg (7.2 lbs)

#### Power Consumption

48 VDC, 12 watts

#### Power Supply Options

- 90 - 264 VAC Input, 48 VDC output, 25 watts, Up to 100 m with 20 AWG cable
- 802.3af PoE Injector, 100-240 VAC, Up to 100 m Ethernet cable
- Supplied by 802.3af network switch, Up to 100 m Ethernet cable

### Communications

#### Ethernet

10/100 BaseT, CAT5 Jack, IEEE 802.3af compliant

#### Wi-Fi

IEEE 802.11 b/g, separately ordered option

Transmit Frequency Band

- 2,400.0 - 2,483.5 MHz

Transmit Power

- 20 dBm EIRP

#### Diagnostics and Configuration

- Direct connect via RS-232c, DB9 male
- Secure Shell 2 via TCP/IP Ethernet interface
- WhereNet ISO 24730-2 Direct Sequence Spread Spectrum Diagnostics Link

Transmit Frequency Band

- 2,400.0 - 2,483.5 MHz

Transmit Power

- 16 dBm EIRP

### Regulatory Approvals

- FCC Part 15 Class A
- IC RSS-210
- ETSI EN 300 328
- ETSI EN 301 489/17
- IEC 60529, Edition 2.1, 2001-02
- IEC 60950-1 and IEC 60950-22
- MIL-STD-464, 5.8.3, HERO

### Accessories

- Indoor/Outdoor ISO/IEC 24730-2 omnidirectional antenna
- Indoor ISO/IEC 24730-2 omnidirectional antenna
- Indoor Wi-Fi 802.11 b/g omnidirectional antenna
- Indoor/Outdoor Wi-Fi 802.11 b/g omnidirectional antenna
- Indoor/Outdoor Wi-Fi 802.11 b/g directional antenna
- Wi-Fi antenna mount kit
- Pole mount kit
- Lightning protection kit
- AC/DC power supply and 802.3af PoE injector

\* Excludes power supply

Specifications subject to change without notice.

Location specifications are subject to environmental conditions and RTLS network design parameters.



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