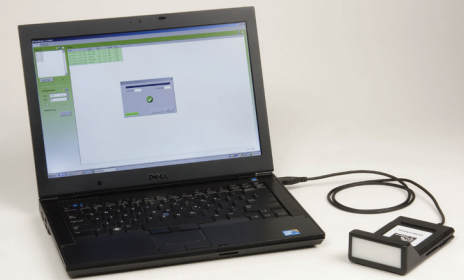




Zebra Enterprise Solutions

# DartWand Module



DATASHEET

## Dart Ultra-Wideband (UWB) Tag Manager

The Zebra DartWand Module enables end users to easily set-up, configure and manage thousands of Zebra DartTags. DartTags are small, battery powered Ultra-Wideband (UWB) wireless devices that periodically transmit their unique ID, typically utilized in asset management applications. DartTags are also capable of receiving low-frequency (LF) wireless transmissions in order to configure how each tag should blink its UWB wireless transmission. The DartWand Module transmits LF instructional messages to the DartTags and in turn can receive UWB validation from the DartTags for validation and inventorying purposes.

The DartWand Module is powered via a USB connector and is controlled via the included DartWand application software. A typical DartWand Module system consists of a computer with the DartWand software, the DartWand Module with included USB cable and an optional barcode scanner.

## DartTag Configuration

The DartWand application is capable of generating a tag configuration list via manual file input, a barcode scan of each or tag package list and finding tag within LF transmit range (typically 2 feet in front of the module). The DartWand Module is capable of configuring any tags within its LF range, up to 100 tags at once.

Currently, two DartTag attributes are able to be configured via the DartWand system: tag blink off/on and tag blink rate. DartTags are capable of being programmed in 12 step iterations from 0.01 Hz (one blink every 75 seconds) to 200 Hz (one blink every 0.005 seconds). The DartWand configuration application provides configuration retry and confirmation messaging to ensure that the targeted DartTags are configured properly.

## DartTag Inventorying

The DartWand system is also capable of working as a Dart UWB tag reader. In inventory mode, the DartWand is capable of a line-of-sight range of over 500 feet from DartWand to the targeted DartTag. The UWB read range is capable of being attenuated from this 500 foot read range down to one foot, providing the ability to pinpoint the distance to DartTags. The DartWand inventory application is currently capable of expressing a DartTag's unique ID, time last seen, battery level, and average blink rate for thousands of concurrent tags. The inventory application table is configurable, sortable, and able to be exported in a number of file formats.

## Sapphire UWB Compatibility

The DartWand system is capable of inventorying Sapphire UWB tags and will designate the UWB family, Dart or Sapphire, for each inventoried tag. The DartWand UWB receive range will vary between the Sapphire tags and the DartTags, therefore, additional testing should always be performed in a hybrid tag environment. Sapphire UWB tags are not configurable via the DartWand system, as they are only delivered with a preconfigured blink rate and removable battery activator strip.

## DartWand Features:

- Easy tag list generation/ association via barcode or LF wireless ping
- Capable of configuring up to 100 tags at once
- Configurable DartTag on and off
- 12 configurable DartTag blink rates from 0.01 to 200 Hz
- Controllable UWB read range from one foot to over 500 ft line-of-sight
- Capable of inventorying and providing reports on thousands of DartTags

## DartWand Specifications\*

Part Number	
DartWand Module	WND-3100-A-00AA
Performance	
Frequency Range	6.35 to 6.75 GHz
Antenna Gain	9.5 dBi
Environmental/Physical	
Operating Temperature	-40°C to 70°C (-40°F to 158°F)
Environmental	IP54
Length	13.4 cm (5.26 in)
Width	8.23 cm (3.24 in)
Height	3.99 cm (1.57 in)
Weight	163 gm (5.76 oz)
Power	5V @ 0.25A
Wired Communications Interface	
Computer	USB 2.0 (USB to Male Micro-B )
Regulatory Approvals	
North America	FCC part 15 subpart B, ICES-003, RS-220, RSS-GEN
European Union	CE

\*Specifications subject to change without notice.

### About Zebra Enterprise Solutions

Zebra Enterprise Solutions, a division of Zebra Technologies Corporation, extends Zebra's reach beyond passive RFID by employing state-of-the-art software and hardware solutions to locate, track, manage, and optimize high-value assets, equipment and people across the world's largest supply chains. Whether tracking containers through a port, optimizing parts for manufacturing, or managing ground support equipment at an airport, the real-time asset management solutions from the combination of Navis, WhereNet, proveo, and Multispectral Solutions provide improved visibility and velocity to gain measurable business improvements. Utilizing products that are based on ISO/IEC 24730-2, Cisco CCX Wi-Fi, precision GPS, and UWB technologies, Zebra Enterprise Solutions offers a wide range of location solutions that are "application matched," enabling its customers to put the right asset in the right place at the right time.

For more information please visit us at [www.zebra.com/zes](http://www.zebra.com/zes)

2

©2010 ZIH Corp. Zebra Enterprise Solutions and all product names and numbers are Zebra trademarks, and Zebra, and the Zebra head graphic are registered trademarks of ZIH Corp. All rights reserved. All other trademarks are the property of their respective owners.



Zebra Enterprise Solutions