

# Zebra WhereTag IV ST



The WhereTag IV ST Serial Telemetry Tag is designed to transmit serial messages over the ISO/IEC 24730-2 Air Interface. It incorporates a serial interface that is compatible with either RS-232c or RS-422/485. Telemetry data can be input into the WhereTag IV ST and then forwarded across to the RTLS Wireless Infrastructure. This tag is a small device that can be attached to assets of many kinds, such as forklifts, containers, ULDs, hospital and test equipment, as well as trailers and container chassis'. The telemetry capability of the WhereTag IV ST can be used for a wide variety of applications ranging from simple "on-time" monitoring to sophisticated machine operation monitoring. The combination of location data from the RTLS system and the telemetry data enables a host of new applications. WhereTag IV ST orderable configuration options include your choice of internal or external antennas and a single weather-proof serial connector on either the end or the bottom of the tag.

The tag can be commanded to transmit on demand, but also supports a preprogrammed "blink" rate that sends out identification and telemetry data at fixed intervals. This allows location monitoring of intelligent assets even when there is no triggering event. These "blinks" can be preprogrammed at rates ranging from 5 seconds to multiple hours between blinks. The Zebra WhereNet RTLS infrastructure receives these blinks, and uses sophisticated Time Difference of Arrival

(TDOA) algorithms to determine the location of the tag. This calculated location of the asset can be accurate to within 1 meter and is nominally within 3 meters in most installations.

The WhereTag IV ST complies with the ISO/IEC 24730-2 RTLS standard. This asset tag operates in the globally accepted 2.4GHz frequency band and transmits spread spectrum signals in accordance with the standard. The use of spread spectrum technology provides extremely long range; in excess of 1,750 meter read range, and 1000 meter locate range outdoors. This is accomplished at a low power output of less than 20mW.

## The Benefits of WhereTag IV ST

- Transmits Serial Telemetry Data
- Supports RS-232c or RS-422/485 Serial Interface
- ISO/IEC 24730-2 Compliant
- Long Range and Battery Life

## WhereTag IV ST Tag Variants

The WhereTag IV ST tag design has multiple product variants that are currently available:

- WhereTag IV ST, TFF-2015-05AA, Internal Antenna, End Serial Port Connector
- WhereTag IV ST, TFF-2015-08AA, External Antenna, Bottom Serial Port Connector

## PRODUCT SPECIFICATIONS

PHYSICAL	
Size	127mm x 64mm x 38mm (5.0in x 2.5in x 1.5in)
Weight	100g (3.5oz)
ENVIRONMENTAL	
Operating Temperature	-30°C to +65°C (-22°F to +149°F)
Storage Temperature	-30°C to +65°C (-22°F to +149°F)
Environmental Sealing	IP54 (Windblown Dust and Rain)
Durability	1.8m (6ft) Drop to Concrete
POWER	
Battery	AA Lithium Thionyl Chloride Cell (Non-Replaceable)
PERFORMANCE	
ISO 24730-2 Mode	<ul style="list-style-type: none"> <li>• Frequency Range: 2.4GHz to 2.483GHz</li> <li>• Typical Locate Range, Indoors: 100m (325ft)</li> <li>• Typical Locate Range, Outdoors: 1000m (3,250ft)</li> <li>• Typical Read Range, Indoors: 200m (650ft)</li> <li>• Typical Read Range, Outdoors: 1,750m (5,780ft)</li> <li>• User Configurable Blink Rate: 5 seconds to 1 hour</li> <li>• Typical Battery Life: 5 years</li> </ul>
REGULATORY APPROVALS	
North America	<ul style="list-style-type: none"> <li>• FCC Part 15 Class B, Part 15.247</li> <li>• Industry Canada ICES-003, RSS-210, RSS-GEN</li> </ul>
Europe	<ul style="list-style-type: none"> <li>• EN 55022 Class B</li> <li>• EN 55024</li> <li>• TUV GS EN 60950</li> <li>• EMC Directive 89/336/EEC</li> </ul>
Worldwide	<ul style="list-style-type: none"> <li>• ISO/IEC 24730-2 Compliant</li> </ul>

## PART NUMBERS

Part Number	Description
TFF-2015-05AA	WhereTag IV ST, Internal Antenna, End Connector
TFF-2015-08AA	WhereTag IV ST, External Antenna, Bottom Connector

### PRODUCT ACCESSORIES

- WhereTag Serial Telemetry Cable
- WhereTag Mounting Kits

