

PRODUCT DATASHEET

Confidex TireTag™



Embedded RFID TireTag offers more flexibility with small size and omni-directional antenna design

ELECTRICAL SPECIFICATION

Device type

UHF RFID / EPCglobal Gen2v2
ISO/IEC 18000-63
ISO 20909 and 20910 compliant

Operational frequency

Global 860-960 MHz

IC type

Impinj Monza R6-P™

Memory configuration

EPC 128 bit; User 32 bit; TID 96 bit

EPC memory content

Unique number encoded as a default

Read range (2W ERP)*

In tire up to 3m / 10ft. Read range is highly depending on the application and installation position. Reading direction affects the read range. TireTag is designed to be readable in both diagonal and radial applications.

Applicable surface materials*

Embedded inside tire.

* Read ranges are theoretical values that are calculated for non-reflective environment, in where antennas with optimum directivity are used with maximum allowed operating power according to ETSI EN 302 208 (2W ERP). Different tire materials and location inside tire may have an effect on performance.

MECHANICAL SPECIFICATION

Tag materials

High performance FR4 with copper alloy antenna

Weight

1,5 g

Delivery format

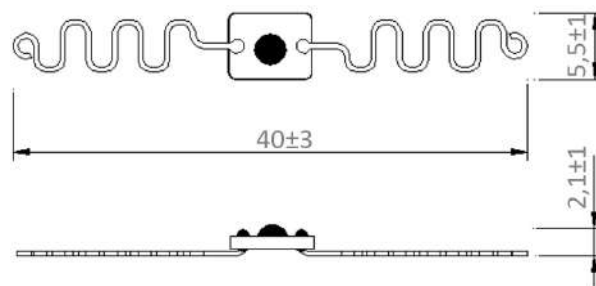
Single

Amount in box

2000pcs

Tag dimensions

40 x 5,5 x 2,1 mm / 1.57 x 0.22 x 0.08 in



ENVIRONMENTAL RESISTANCE

Operating temperature

-40°C to +85°C / -40°F to +185°F

Peak temperature

+250°C / +482°F for 120min

Water resistance

IP68

Application endurance

60h endurance test with 200% load, 45km/h.

Chemical resistance

No performance changes in:

- 168h Motor oil exposure
- 48h Salt water (salinity 10%) exposure
- 48h NaOH (10%, pH 13) exposure

Storage condition

1 year in +20°C / 50% RH

Expected lifetime

Years in normal operating conditions

Values in the table are the best recommendations; resistance against environmental conditions depends on the combination of all influencing factors, exposure duration and chemical concentrations. Thus, product's final suitability for certain environmental conditions is recommended to be tested. Contact Confidex for more specific information.

PERSONALIZATION OPTIONS

Pre-encoding

- Customer specific encoding of EPC or user memory. Locking permanently or with password.

INSTALLATION INSTRUCTIONS

Below is the recommended procedure of embedding Confidex TireTag™ inside the tire. Process should be tested and modified according to the requirements of unique manufacturing processes.

1. Primer coating

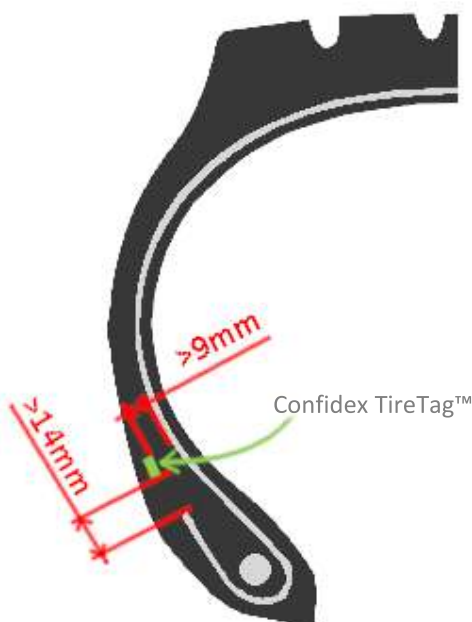
To achieve best bonding strength between the tag and rubber, primer coating or adhesive at least on center part of TireTag is recommended. For primer recommendations contact Confidex. Primer may be applied by brush, spray, roll coat or other method that provides uniform coating. During coating avoid touching tag with hands and ensure tag surface is clean.

2. Repackage

Confidex TireTag™ may also be sandwiched in two pieces of sheet rubber before attaching to the tire. Air is to be avoided during installation.

3. Embed inside tire

TireTag needs to be attached on the bead filler before molding. It will be covered by sidewall rubber. Below picture shows recommended embedding position. Position inside tire may vary between the tire designs and should be tested for each design. The distance between tag and steel cord is recommended to be greater than 9mm and distance to the steel cord edge needs to be greater than 14mm for achieving best read distance.



ORDER INFORMATION

Product number: 3002966

Product name: Confidex TireTag™ MR6-P

For other versions, additional information and technical support contact Confidex Ltd.

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For more information, contact:

info@rfidtrade.com

www.rfidtrade.com