

PRODUCT DATASHEET

Confidex Carrier PRO™



Special washable label for returnable plastic containers with great performance even when being close to challenging materials.

ELECTRICAL SPECIFICATION

Device type

Class 1 Generation 2 passive UHF RFID transponder

Air interface protocol

EPCGlobal Class1 Gen2 ISO 18000-6C

Operational frequency

Global 860-960MHz

IC type

Impinj Monza 4QT™

Impinj Monza 4E™ (upon special request)

Memory configuration

With Monza 4QT: EPC 128 bit; User 512 bit; TID 96 bit

With Monza 4E: EPC 496 bit; User 128 bit; TID 96 bit

Read range (2W ERP)*

EU on plastic up to 12,5 m / 41 ft

EU on cardboard up to 11 m / 36 ft

US on plastic up to 12 m / 39 ft

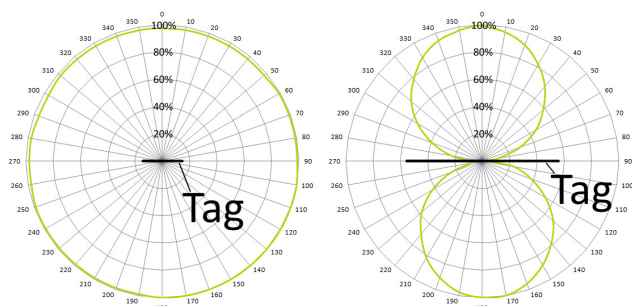
US on cardboard up to 10,5 m / 34 ft

Applicable surface materials*

Non-metallic surfaces. Works well also on boxes where content varies from fruits, vegetables or other groceries to liquid bottles and utilities.

* 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). EU = 865 - 868 MHz, US = 902 - 928 MHz. Different surface materials may have an effect on performance.

RADIATION PATTERNS



MECHANICAL SPECIFICATION

Tag materials

Printable white PET, resin ribbon is recommended

Background adhesive

High performance acrylic adhesive specifically for low surface energy plastics

Weight

0,8 g

Delivery format

2000 pcs on reel

Pitch on reel

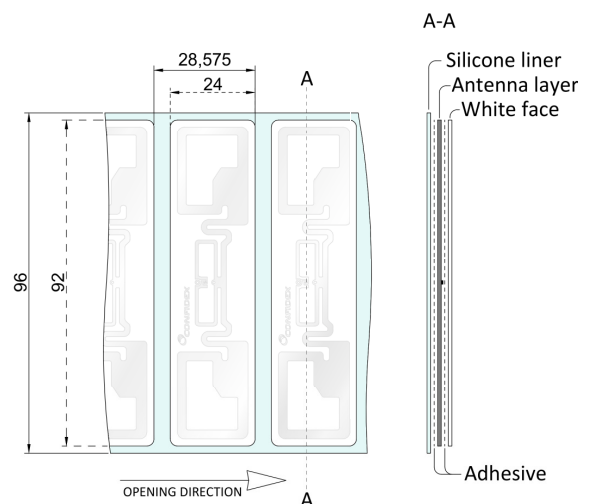
28,575 mm / 1,125"

Reel core inner diameter

76 mm / 3"

Tag dimensions

92 x 24 x 0,2 mm / 3.62 x 0.94 x 0.01 in



ENVIRONMENTAL RESISTANCE

Operating temperature

-35°C to +85°C / -31°F to +185°F

Ambient temperature

-35°C to +90°C / -31°F to +194°F

Water resistance

Good, tested 5 hours in 1m deep water (IP68)

Washing resistance

Good, tested 800 cycles with water at 175bar / 80°C

Chemical resistance

No physical or performance changes in:

- 168h Salt water (salinity 10%) exposure
- 168h NaOH (10%, pH 13) exposure
- 168h Sulfuric acid (10%, pH 2) exposure
- 168h Motor oil exposure
- 30min Acetone exposure

Storage condition

1 year in +20°C / 50% RH (shelf life for adhesive)

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

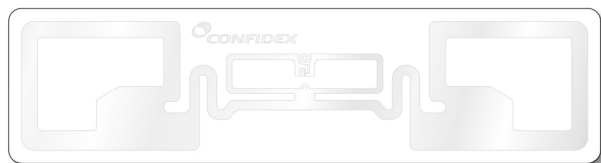
Pre-encoding

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

Customized printing

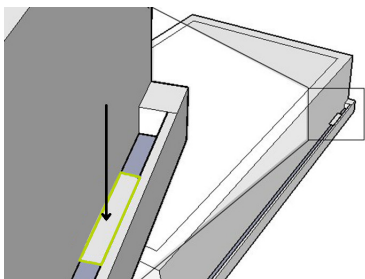
- Customer specific layout including logo, text, numbers, barcodes etc.

INSTALLATION INSTRUCTIONS



Tag polarization

While planning the installation, most recommended location for the Confidex Carrier PRO™ label is in a position, where the structure of the identified asset provides protection against mechanical stresses such as impacts or jet streams. There's no need for line of sight between reader and label so it can be installed for example like shown in picture below.



Ideal installation conditions are +20°C (+68°F) / 50% RH. For exceptional conditions, please contact Confidex. Adhesive of the label will provide best adhesion in 24 hours after the installation. Bond strength can be improved with firm application pressure. Always clean and dry the surface for obtaining the maximum bond strength.

During attachment to the identified asset, please avoid touching the background adhesive. If the location on the asset needs to be changed, please use a new tag instead of re-placing the used one; the adhesion will suffer from the re-placement.

Minimum bending diameter of the Confidex Carrier PRO™ is defined to be 50mm. Do not bend the label above the limit. Never touch on the location of the IC. IC chip is sensitive electrical component and can be damaged if unexpected pressure is applied on the chip.

ORDER INFORMATION

Product number: 3000446

Product name: Confidex Carrier PRO™ M4QT

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

DISCLAIMER

THE MATERIALS, PRODUCTS AND SERVICES ARE SOLD SUBJECT TO ITS STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, CONFIDEX MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (i) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (ii) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN CONFIDEX STANDARD CONDITIONS OF SALE, CONFIDEX AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.

Each user bears full responsibility for making its own determination as to the suitability of Confidex products, materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished systems incorporating Confidex products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Confidex.

