

# PRODUCT DATASHEET

## Confidex Crosswave Classic™



Dual-dipole label for logistics applications having good reading performance and radiation pattern.

### ELECTRICAL SPECIFICATION

#### Device type

UHF RFID / EPCglobal Gen2v2

#### Operational frequency

Global 860-960MHz

#### IC type

Impinj Monza 4E

#### Memory configuration

With Monza 4E: EPC 496 bit; TID 64 bit; User 128 bit

#### Read range (2W ERP)\*

ETSI on plastic up to 10 m / 33 ft

ETSI on cardboard up to 10 m / 33 ft

FCC on plastic up to 10 m / 33 ft

FCC on cardboard up to 9 m / 30 ft

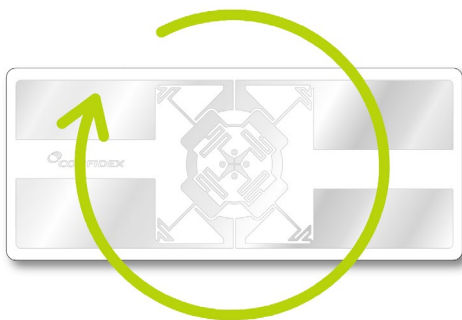
#### Applicable surface materials\*

Non-metallic surfaces

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

### 360° Readability

Confidex Crosswave Classic™ is designed to have constant reading performance in all orientations even when using linear reader antenna.



### MECHANICAL SPECIFICATION

#### Tag materials

Matt coated paper face material

#### Background adhesive

General purpose permanent adhesive

#### Delivery format

Crosswave Classic: 2000 pcs on reel

Crosswave Classic 4x2": 1000 pcs on reel

Crosswave Classic 4x3": 1000 pcs on reel

Crosswave Classic 4x6": 500 pcs on reel

#### Pitch on reel

Crosswave Classic: 42,86mm / 1.687"

Crosswave Classic 4x2": 55,245mm / 2.175"

Crosswave Classic 4x3": 78,58mm / 3.094"

Crosswave Classic 4x6": 155,6mm / 6.126"

#### Reel core inner diameter

76 mm / 3"

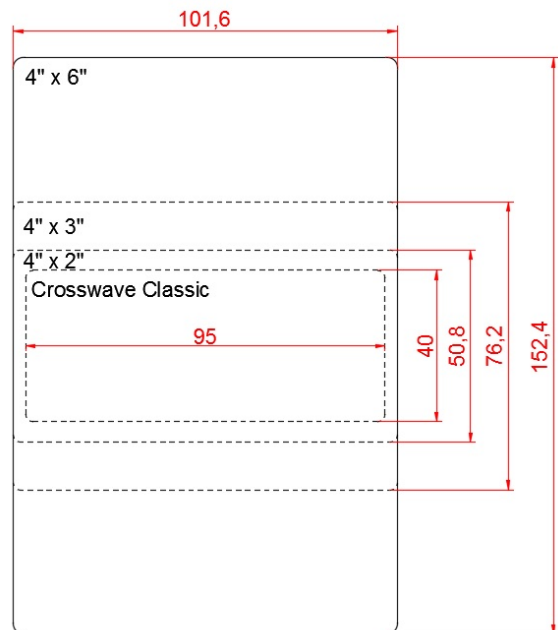
#### Tag dimensions

95mm x 40mm x 0,2mm / 3.74" x 1.57" x 0.008"

4x2": 101,6mm x 50,8mm x 0,2mm / 4" x 2" x 0.008"

4x3": 101,6mm x 76,2mm x 0,2mm / 4" x 3" x 0.008"

4x6": 101,6mm x 152,4mm x 0,2mm / 4" x 6" x 0.008"



### ENVIRONMENTAL RESISTANCE

#### Operating temperature

-35°C to +70°C / -31°F to +185°F

#### Ambient temperature

-35°C to +70°C / -31°F to +185°F

#### Storage condition

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

#### Expected lifetime

Meant for short term use, in normal operating conditions lifetime can be years

*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

**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

Ideal installation conditions are +20°C (+68°F) / 50% RH. For exceptional conditions, please contact Confidex. Adhesive of the Confidex Crosswave Classic™ labels 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. Avoid touching the background adhesive.

Confidex Crosswave Classic™ label antenna parts should not be in contact with metal to enable best performance of the label.

Minimum bending diameter of the label 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:** 3001706

**Product name:** Confidex Crosswave Classic™ M4E

**Product number:** 3001721

**Product name:** Confidex Crosswave Classic™ 4x2" M4E

**Product number:** 3001720

**Product name:** Confidex Crosswave Classic™ 4x3" M4E

**Product number:** 3001760

**Product name:** Confidex Crosswave Classic™ 4x6" M4E

For additional IC versions, 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.