

# PRODUCT DATASHEET

## Confidex Ironside Micro™



On-metal tag with square inch foot print for various metal asset tracking applications.

### ELECTRICAL SPECIFICATION

#### Device type

Class 1 Generation 2 passive UHF RFID transponder

#### Air interface protocol

EPCGlobal Class1 Gen2 ISO 18000-6C

#### Operational frequency

Global 865-928MHz

EU 865-869 MHz

US 902-928 MHz

#### IC type

Global:

Impinj Monza 4QT™

Impinj Monza 4E™ (upon special request)

EU & US:

Alien Higgs 3™ (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

With Higgs 3: EPC 96-496 bit; User 64-512 bit; TID 96 bit

#### EPC memory content

Unique number encoded as a default

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

Global version:

EU up to 5 m / 16 ft

US up to 4 m / 13 ft

EU version up to 7 m / 23 ft

US version up to 6,5 m / 21 ft

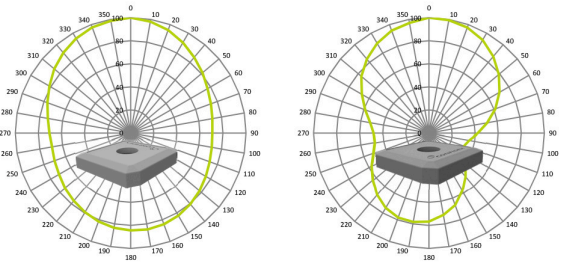
#### Applicable surface materials\*

Works on any material

\* 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. Informed values are measured on metal.

### RADIATION PATTERNS

#### On metal



### MECHANICAL SPECIFICATION

#### Tag materials

High quality engineering plastics

#### Weight

4,3 g

#### Delivery format

Single, 500pcs in box

#### Dimensions

27 x 27 x 5,5 mm / 1.06 x 1.06 x 0.22 in



### ENVIRONMENTAL RESISTANCE

#### Operating temperature

-35°C to +85°C / -31°F to +185°F

#### Ambient temperature

-35°C to +85°C / -31°F to +185°F

#### IP classification

IP68

#### Chemical resistance

No physical or performance changes in:

Global version:

- 168h Motor oil exposure

- 168h Salt water (salinity 10%) exposure

- 5h Sulfuric acid (10%, pH 2) exposure

- 1h NaOH (10%, pH 13) exposure

- Acetone, contact should be avoided

EU & US versions:

- 168h Motor oil exposure

- 1h Salt water (salinity 10%) exposure

- 1h Sulfuric acid (10%, pH 2) exposure

- 1h NaOH (10%, pH 13) exposure

- Acetone, contact should be avoided

#### 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 data label**

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

**Customized laser engraving**

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

**INSTALLATION INSTRUCTIONS**

**Confidex Ironside Micro™ can be attached with several fixing methods:**

1. 3M 300LSE high performance acrylic adhesive (not included by default)

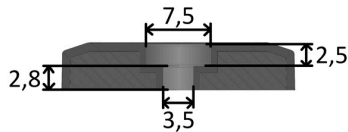
When background adhesive is ordered the tag is delivered with adhesive attached. When mounting the tag with its adhesive background, clean and dry the surface for obtaining the maximum bond strength. Ideal application temperature is from +21°C to +38°C (+70°F to +100°F), bond strength can be improved with firm application pressure and moderate heating from +38°C to +54°C (+100°F to +130°F). Installation at temperatures below 10°C (50°F) is not recommended.

2. Other adhesive fixings
  - Polyurethane adhesives
  - Epoxies
  - Silicone sealants

Silicone sealants like Dow Corning AS 7096 provide very high bond strength and resistance against mechanical stress. When tag is attached with sealant adhesive, insert a layer of sealant under the tag and press the tag on the surface. Increase the bond by adding extra sealant from the tag holes. Insert maximum 2mm layer of adhesive under the tag. Please refer to silicone sealant supplier for exact fixing instructions.

3. Mechanical fixing
  - Screws (size M3)
  - Pop rivets
  - Plastic rivets (size 3mm)

Mechanical fixing is recommended to be used in every application that includes risk for high mechanical stress or low temperature during tag fixing. During fixing make sure there is no air gap left in between the metal surface and tag.



Note that polarization of Confidex Ironside Micro™ is in 45° angle to the Confidex logo like shown in following picture.



To achieve the optimal performance please locate the tag on metal like shown below. Ideally the tag is placed on large even metal surface with direct metal contact underneath the whole tag.



**ORDER INFORMATION**

- Product number:** 3000448
- Product name:** Confidex Ironside Micro™ Global M4QT
- Product number:** 3000594
- Product name:** Confidex Ironside Micro™ Global M4QT ATEX

Following products are available upon special request:

- Product number:** 3000449
- Product name:** Confidex Ironside Micro™ Global M4E
- Product number:** 3000261
- Product name:** Confidex Ironside Micro™ ETSI Higgs3
- Product number:** 3000262
- Product name:** Confidex Ironside Micro™ FCC Higgs3

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.



atlasRFIDstore.com  
 1.888.238.1155 • Inside USA  
 1.205.383.2244 • Outside USA

info@atlasRFIDstore.com • www.atlasRFIDstore.com