# PRODUCT DATASHEET

# **Confidex Ironside Micro™**



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

### **ELECTRICAL SPECIFICATION**

### **Device type**

RAIN RFID / EPCglobal Gen2v2

### **Operational frequency**

Global 865-928MHz

## IC options and memory configurations

Impinj M780™

- EPC 496 bit; User 128 bit; TID 96 bit Impini Monza 4QT™
- EPC 128 bit; User 512 bit; TID 96 bit Impinj Monza 4E™
  - EPC 496 bit; User 128 bit; TID 96 bit

#### **EPC** memory content

Unique number encoded as a default

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

M780

- On metal up to 7 m / 23 ft
- On plastic up to 2 m / 7 ft

# M4QT / M4E

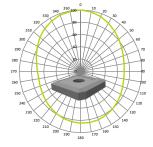
- On metal up to 5 m / 16 ft
- On plastic up to 1 m / 3 ft

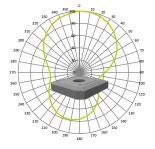
# Applicable surface materials\*

Works on any material but optimized for metallic items

# RADIATION PATTERNS

# On metal





# MECHANICAL SPECIFICATION

#### Tag materials

High quality engineering plastics

### Weight

4,3 g

### **Delivery format**

Single

### Amount in box

500pcs

#### **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:

- 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

# **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.

<sup>\*</sup> Read ranges are theoretical values that are calculated for non-reflective environment. Different surface materials may influence performance.

# **INSTALLATION INSTRUCTIONS**

Confidex Ironside Micro<sup>™</sup> can be attached with several fixing methods:

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

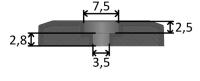
When background adhesive is ordered the tag is delivered with adhesive attached. Clean and dry the surface for obtaining the maximum bond strength. Ideal application temperature is from +21°C to +38°C (+70°F to +100°F), bond strength can be improved with firm application pressure and moderate heating 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

Structural adhesives such as 3M DP110 and SikaFast 5215 provide very high bond strength and resistance against mechanical stress. When tag is attached with structural adhesive, insert a layer of adhesive under the tag and press the tag on the surface. Increase the bond by adding extra sealant from the tag hole. Insert maximum 2mm layer of adhesive under the tag. Please contact adhesive supplier for exact fixing instructions.

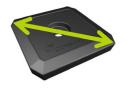
- 3. Mechanical fixing
  - Screws (size M3)
  - Pop rivets
  - Plastic rivets (size 3mm)

Mechanical fixing is recommended to be used 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.

Polarization of Confidex Ironside Micro<sup>TM</sup> is in 45° angle to the Confidex logo like shown in following picture. This should be taken into account when linearly polarized reader antennas are used.



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: 3004169

**Product name:** Confidex Ironside Micro<sup>™</sup> M780

Product number: 3000448

**Product name:** Confidex Ironside Micro<sup>™</sup> M4QT

Product number: 3000449

**Product name:** Confidex Ironside Micro™ M4E

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

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