

PRODUCT DATASHEET

Confidex Ironside Micro™



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

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



ELECTRICAL SPECIFICATION

Device type

UHF RFID / ISO 18000-6C / EPCglobal Gen2v2

Operational frequency

Global 865-928MHz

IC type

Impinj Monza 4QT™

Impinj Monza 4E™

Memory configuration

M4QT: EPC 128 bit; User 512 bit; TID 96 bit

M4E: EPC 496 bit; User 128 bit; TID 96 bit

EPC memory content

Unique number encoded as a default

Read range (2W ERP)*

ETSI up to 5 m / 16 ft

FCC up to 4 m / 13 ft

Applicable surface materials*

Works on any material but optimized for metallic items

* 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. Informed values are measured on metal.

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

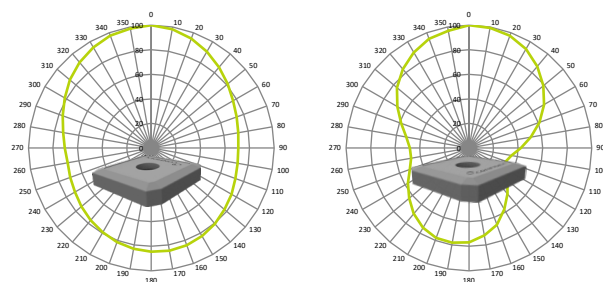
- Customer specific layout including logo, text, numbers, barcodes etc.

Customized laser engraving

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

RADIATION PATTERNS

On metal



INSTALLATION INSTRUCTIONS

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

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

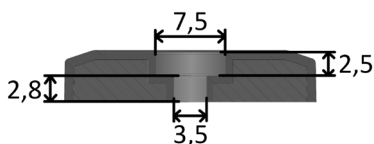
When background adhesive is ordered the tag is delivered with adhesive attached. When mounting the tag with its adhesive background, clean and dry the surface for obtaining the maximum bond strength. Ideal application temperature is from +21°C to +38°C (+70°F to +100°F), bond strength can be improved 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: 3000449

Product name: Confidex Ironside Micro™ Global M4E

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

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