

# PRODUCT DATASHEET

## Confidex Carrier Tough Slim™



Durable tag solution for reliable plastic container and returnable transit item tracking.

### ELECTRICAL SPECIFICATION

#### Device type

UHF RFID / EPCglobal Gen2v2

#### Operational frequency

Global 865-928 MHz

#### IC type

Impinj M780™

#### Memory configuration

EPC 496 bit; User 128 bit; TID 96 bit

#### EPC memory content

Unique random 96bit EPC in every label

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

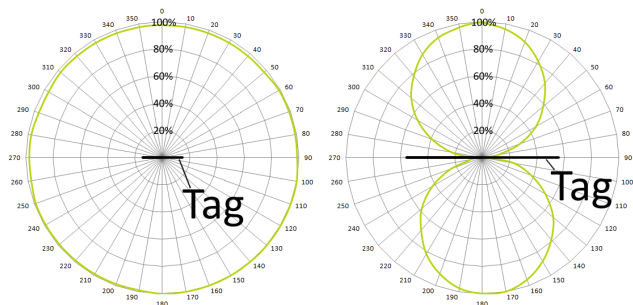
On plastic up to 20 m / 65 ft

#### Applicable surface materials\*

Non-metallic surfaces

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

### RADIATION PATTERNS



### MECHANICAL SPECIFICATION

#### Tag encapsulation

Scratch and bending-resistant engineering plastic

#### Background adhesive

High performance acrylic adhesive specifically for low surface energy plastics

#### Weight

1 g

#### Delivery format

Single

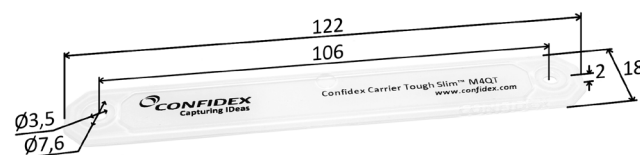
#### Amount in box

Inner box: 100 pcs

Outer box: 1000 pcs

#### Tag dimensions

122 x 18 x 2 mm / 4.80 x 0.71 x 0.08 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, tested 5 hours in 1m deep water

#### Washing resistance

Tolerates industrial washing processes

#### Chemical resistance

No physical or performance changes in:

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

Confidex Carrier Tough Slim™ polarization is along the longest dimension of the tag. This should be taken into account when linear reader antennas are used.



When selecting the location ensure the following

- Select a smooth surface without uneven areas below the tag
- Avoid touching the background adhesive

When mounting the label with its adhesive, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane for oily surfaces and isopropyl alcohol for plastics. Use reagent grade solvents since common household materials like rubbing alcohol frequently contain oils to minimize the drying effect on skin and can interfere with the performance of adhesive. Carefully read and follow the manufacturer's precautions and directions for use when working with solvents. Do not re-attach tags as adhesion will suffer.

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 up to +54°C (+130°F). Application at temperatures below 10°C (50°F) is not recommended.

Confidex Carrier Tough Slim™ can also be attached mechanically with:

- M3 screws
- 3 mm pop rivets

In harsh conditions mechanical fixing is always recommended.

## ORDER INFORMATION

**Product number:** 3004850

**Product name:** Confidex Carrier Tough Slim™ M780

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

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