PRODUCT DATASHEET

Confidex Carrier Pro

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1. PRODUCT DESCRIPTION

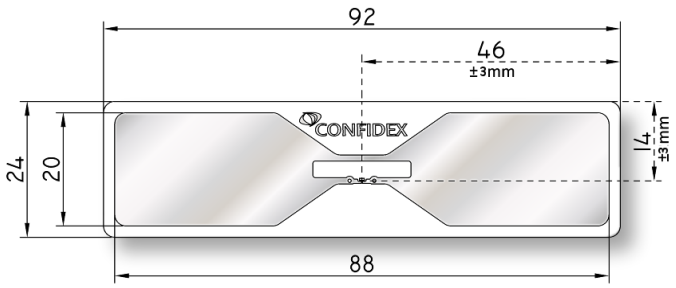
Confidex Carrier Pro is special label for various plastic containers from crates to plastic dollies. The structure of the tag is designed to resist washing processes which RPC (returnable plastic containers) during their lifecycle. Additionally, Carrier Pro has white thermal transfer printable face for visualizing the tag's EPC code or other data. Carrier Pro is delivered in reel format and it can be encoded and printed with typical RFID printers that are capable of printing labels with small separation.

1.1 SPECIFICATION DATA

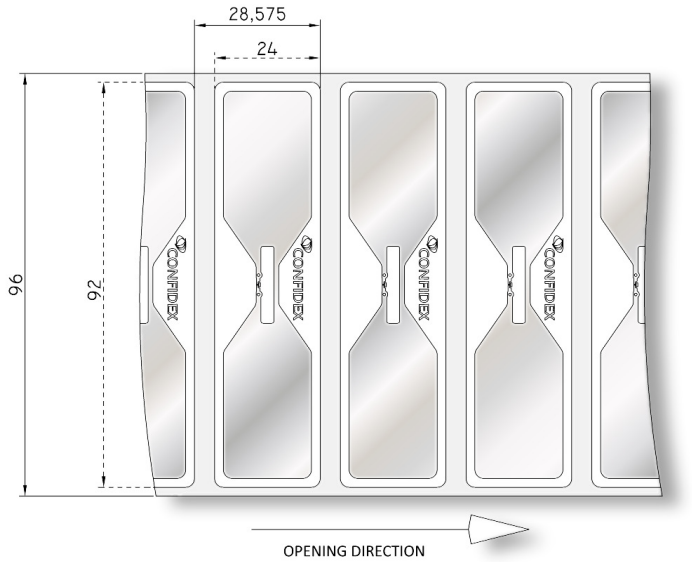
Device type	Class 1 Generation 2 passive UHF RFID transponder
Air interface protocol	EPCGlobal Class1 Gen2 ISO 18000-6C
Operational frequency	860-960 MHz
IC	NXP UCODE G2XM
EPC memory	up to 240 bit
Extended memory	512 bit
Read range	up to 4-6m / 13-19ft, reader power 2W ERP (dependent on application)
Face material	PET
Background adhesive	Acrylic adhesive
Weight	1 g
Delivery format	On reel
Pitch on reel	28,575mm
Amount on reel	2000pcs (default)
Reel core inner diameter	76mm / 3''
Product is RoHS compliant	

1.2 DIMENSIONS

General dimensions (Width x Height x Thickness)	92mm x 24mm x 0,2mm / 3.62" x 0.94" x 0.01"



Delivery in reel format



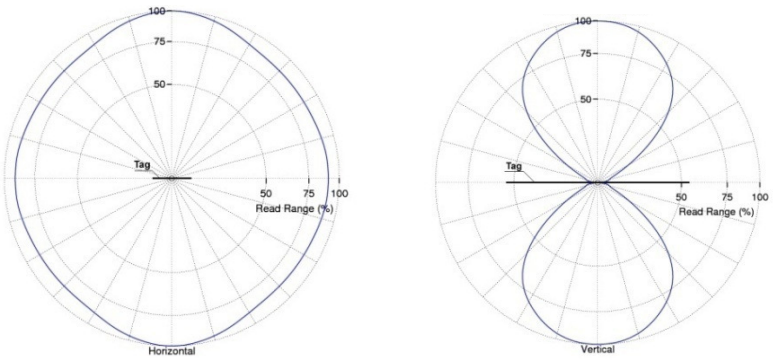
1.3 ELECTRICAL PERFORMANCE

Carrier Pro G2XM	Read range on plastic	4-6 meters / 13-20 ft
	Read range on plastic close to liquid content	2-4 meters / 6.5-13 ft
	Read range free air	4-6 meters / 13-20 ft

* Read ranges may vary depending on the used frequency and reader power. Presented reading ranges are calculated values in non-reflective environment, in where antennas with optimum directivity are used with maximum allowed operating power: EU 865-868 MHz (2W ERP), US 902-928 MHz (4W EIRP), and JPN 952-954MHz (4W EIRP).

1.4 RADIATION PATTERNS

Estimated radiation pattern when tag orientation towards reader antenna is optimized.



1.5 RESISTANCE AGAINST ENVIRONMENTAL CONDITIONS*

Typically values are valid for all tag versions. If not, applicable IC versions are marked

Operating temperature	-35°C to +85°C (-31°F to +185°F)
Ambient temperature	-35°C to +90°C (-31°F to +194°F)
Storage condition	2 years in +20°C / 50% RH (shelf life for adhesive)
Water resistance	Good, tested for 5 hours in 1 meter deep water
Chemical resistance	Good
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.*

1.6 SUPPORTED SERVICES

There is several personalization options available for Confidex Carrier Pro in order to "fine tune" the tag to match with the application requirements:

- Pre-encoding
- Customer specific printing (during Q2/2010)

1.7 INFORMATION OF USED MATERIALS

Back side adhesive	Adhesive designed to have excellent adhesion on plastic surfaces, good adhesion on other surfaces.
PET face material	Inkjet and thermal transfer printable. For thermal transfer printing, resin ribbon is recommended.

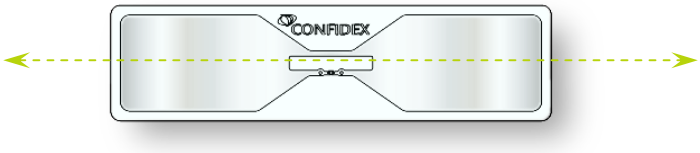
1.8 POSSIBLE APPLICATIONS

Plastic	Plastic crates and other returnable containers which require both correct electrical properties as well as sufficient adhesion to withstand washing

2. INSTALLATION INSTRUCTIONS

2.1 LABEL ORIENTATION

Carrier Pro polarization is along the tag's longest dimension:



While planning the installation, most recommended location for the Confidex Carrier Pro –label is in a position, where the structure of the identified asset provides protection against mechanical stresses such as impacts or jet streams.

The installation should be done ideally in +20'C/50%RH conditions. For exceptional conditions, please contact Confidex. The adhesive of the label has been selected to provide best adhesion in 24 hours after the installation.

Label antenna parts should not be in contact with metal to enable best possible performance of the label.

2.2 PROTECTION OF TAG DURING USAGE

Minimum bending diameter of the Confidex Carrier Pro 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. Try to avoid mechanical impacts to the Confidex Carrier Pro. IC and antenna may be damaged due to mechanical shocks.

3. ORDER INFORMATION

Product number	Product name
3000254	Carrier Pro G2XM

For additional information and technical support contact Confidex Ltd.

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