PRODUCT DATASHEET
Confidex Crosswave Classic™

Dual-dipole label for logistics applications having good reading performance and radiation pattern.

ELECTRICAL SPECIFICATION

Device type
UHF RFID / EPCglobal Gen2v2

Operational frequency
Global 860-960MHz

IC type
Impinj Monza 4E

Memory configuration
With Monza 4E: EPC 496 bit; TID 64 bit; User 128 bit

Read range (2W ERP)*
ETSI on plastic up to 10 m / 33 ft
ETSI on cardboard up to 10 m / 33 ft
FCC on plastic up to 10 m / 33 ft
FCC on cardboard up to 9 m / 30 ft

Applicable surface materials*
Non-metallic surfaces

* 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. Different surface materials may have an effect on performance.

360° Readability

Confidex Crosswave Classic™ is designed to have constant reading performance in all orientations even when using linear reader antenna.

MECHANICAL SPECIFICATION

Tag materials
Matt coated paper face material

Background adhesive
General purpose permanent adhesive

Delivery format
Crosswave Classic: 2000 pcs on reel
Crosswave Classic 4x2": 1000 pcs on reel
Crosswave Classic 4x3": 1000 pcs on reel
Crosswave Classic 4x6": 500 pcs on reel

Pitch on reel
Crosswave Classic: 42,86mm / 1.687”
Crosswave Classic 4x2": 55,245mm / 2.175”
Crosswave Classic 4x3": 78,58mm / 3.094”
Crosswave Classic 4x6": 155,6mm / 6.126”

Reel core inner diameter
76 mm / 3”

Tag dimensions
95mm x 40mm x 0.2mm / 3.74” x 1.57” x 0.008”
4x2“: 101,6mm x 50,8mm x 0,2mm / 4” x 2” x 0.008”
4x3“: 101,6mm x 76,2mm x 0,2mm / 4” x 3” x 0.008”
4x6“: 101,6mm x 152,4mm x 0,2mm / 4” x 6” x 0.008”

ENVIRONMENTAL RESISTANCE

Operating temperature
-35°C to +70°C / -31°F to +185°F

Ambient temperature
-35°C to +70°C / -31°F to +185°F

Storage condition
1 year in +20°C / 50% RH (shelf life for adhesive)

Expected lifetime
Meant for short term use, in normal operating conditions lifetime can be years

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

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

Ideal installation conditions are +20°C (+68°F) / 50% RH. For exceptional conditions, please contact Confidex.

Adhesive of the Confidex Crosswave Classic™ labels will provide best adhesion in 24 hours after the installation. Bond strength can be improved with firm application pressure. Always clean and dry the surface for obtaining the maximum bond strength. Avoid touching the background adhesive.

Confidex Crosswave Classic™ label antenna parts should not be in contact with metal to enable best performance of the label.

Minimum bending diameter of the label 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.

ORDER INFORMATION

Product number: 3001706
Product name: Confidex Crosswave Classic™ M4E

Product number: 3001721
Product name: Confidex Crosswave Classic™ 4x2" M4E

Product number: 3001720
Product name: Confidex Crosswave Classic™ 4x3" M4E

Product number: 3001760
Product name: Confidex Crosswave Classic™ 4x6" M4E

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

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