



BELT

Compact size and high performance in item-level tagging

SMARTRAC's Belt inlays and tags are designed for global retail, industry and supply chain applications with excellent performance, including in close coupling environments.

Belt inlays and tags have a compact 76mm / 3 inch form factor, which can be easily converted into end-application usage, and are available in dry, wet and paper tag delivery formats. They are now available with the Impinj Monza R6 chip that comes with an Autotune feature, which helps the Belt product to work at peak efficiency, even in rapidly changing environments. Belt with the Monza R6 chip offers unique TID and enables pre-serialized EPC.

Belt with the Impinj Monza R6 IC, used in retail applications, is included on the approved inlay list for boxed electronics by the RFID Research Center of the University of Arkansas, and complies with categories A, B, C, D, K, I and M. Furthermore, it meets GS1 Tagged-Item Performance Protocol (TIPP) Tagged-Item Gratings M10B S15B, M15B S15B and M20D S15D for the retail supply chain, retailers and suppliers, and is recommended by Impinj for the fixed-base xArray system.

SMARTRAC's inlays and tags are compliant with ISO 9001:2008 Quality Management and ISO 14001:2004 Environmental Management, which ensure a reliable and state-of-the-art product that meets a variety of application needs, especially in the retail environment.

Overview

Operating Frequency

860 - 960 MHz

Integrated Circuit (IC)

Impinj Monza R6

Antenna Size

70 x 10 mm (2.7 x 0.4 in)

Die-cut Size

73 x 13 mm (2.9 x 0.5 in)

International Standards

- EPC Class 1 Gen 2
- ISO 18000-6C

Application Areas

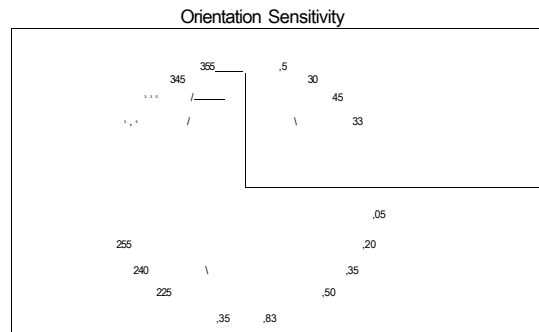
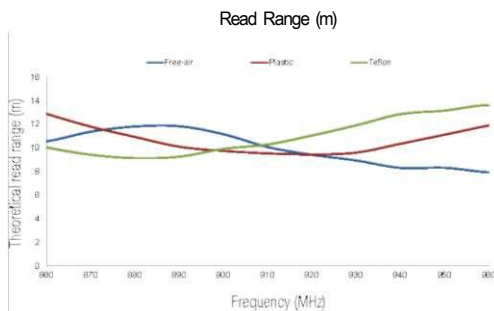
- Brand Protection
- Industry
- Retail
- Supply Chain Management

BELT

Compact size and high performance in item-level tagging

Technical Features

IC	Impinj Monza R6
Memory	96 bit
Frequency	860-960 MHz
Antenna Size	70 x 10 mm / 2.8 x 0.4 in
Die-Cut Size	73 x 13 mm / 2.9 x 0.5 in
Web Width	80 mm / 3.15 in
Operating Temperature	-40 °C to +85 °C / -40 °F to +185 °F
Delivery Format	dry, wet and tag
Adhesive	Acrylic, water bome adhesive
Qty/Reel	5,000 pcs / 15,000 pcs
Core Size	76 mm / 3 in
Shelf Life	+20 °C, 50 % RH / 68 °F, 50 % RH - minimum 2 years from the date of manufacturing



All the graphs are indicative: performance in real life applications may vary. The data has been determined based on calculations for transmitters with a 2W ERP output power level

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BELT

Compact size and high performance in item level retail and supply chain applications.

Operating Frequency

860 - 960 MHz

Integrated Circuit (IC)

NXP UCODE 7

Antenna Size

70 x 10 mm (2.76 x 0.39 in)

Die-cut Size

73 x 13 mm (2.87 x 0.51 in)

International Standards

EPC Class 1 Gen 2

ISO 18000-6C

Quality Assurance

100% performance tested

Apparel
Brand Protection
Industrial Automation
Supply Chain Management

Belt tags and inlays are designed for item level, logistics and retail applications offering high performance in apparel and brand protection, industrial and supply chain management solutions. The special design takes into account RF requirements for close coupling.

Belt tags and inlays with the NXP UCODE 7 IC, used in retail applications, have passed the Arkansas Radio Compliance (ARC) tests defined by the RFID Research Center at the University of Arkansas. Retailers and brand owners can deploy SMARTRAC's Belt tags for apparel globally, as they comply with frequency regulations set up in US (FCC), EU (ETSI) and Asia.

Benefits:

High performance for a wide range of apparel and supply chain management applications.

Compact 3 inch form factor.

University of Arkansas approved, ARC categories A, B, C, D, I, and K.

Unique TID and pre-serialized EPC number.

Paraller encoding i.e. multiple tags can be encoded at the same time.

Product status flag i.e. the tag can be used as EAS (Electronic Article Surveillance) tag without the need for a back-end data base.

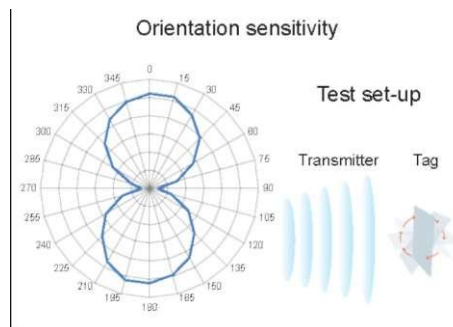
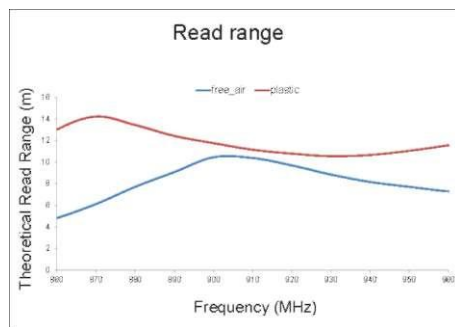
ISO 9001:2008 Quality Management System and ISO 14001:2004 Environment Management System support.

BELT

Technical Features

IC	NXP UCODE 7
Memory	EPC memory 128 bit
Frequency	
Antenna Size	70 x 10 mm / 2.76 x 0.39"
Die-cut Size	73 x 13 mm / 2.87 x 0.51"
Web Width	80 mm / 3.15"
Operating Temperature	-40°C to 85°C / -40°F to 185°F
Bending Diameter (D)	> 50 mm, tension max. 10 N
Delivery Formats	Dry inlay, wet inlay, tag
Adhesive	Acrylic, water borne adhesive
Adhesive Usage Temperature	min. -20°C to 80°C / min. -4°F to 176°F
Qty/Reel	20,000 per reel
Core Size	76 mm / 3"
Shelf Life: minimum of 2 years from the date of manufacture in	20°C / 68°F, 50% RH

SMARTRAC TECHNOLOGY GROUP uses three different qualification methods to evaluate the quality and reliability of RFID inlay and tag products. Products are tested according to IEC 60068-2-67 (temperature and humidity), JESD22-A104-B (temperature cycling) and an in-house developed bending test.



All the graphs are indicative: performance in real life applications may vary. The data has been determined based on calculations for transmitters with a 2W ERP output power level.

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TRAP

Perfect for Small Item-Level Retail and Pharmaceutical Applications

SMARTRAC's TRAP inlays and tags are designed for item-level identification requiring a small footprint and excellent Retail. The compact and reliable Trap products are the perfect fit for smaller pharmaceutical and retail applications. They work well in both near field and far field.

TRAP inlays and tags are optimum solution for small item-level tagging, unmatched performance for small difficult-to-tag items and offer great RF-stability in a small form factor. It shows excellent performance in far field with high dielectric materials such as glass vials and Printed Circuit Boards (PCBs) and perfectly works on near field range, too.

TRAP is available with Impinj Monza 4 chips that offers serial TID and different memory features EPC from 128 bit to 496 bit, and user memory from 32 bit to 512 bit.

SMARTRAC's inlays and tags are compliant with ISO 9001:2008 Quality Management and ISO 14001:2004 Environmental Management, which ensure a reliable and state-of-the-art product that meets a variety of application needs.

Overview

Operating Frequency

860 - 960 MHz

Integrated Circuit (IC)

Impinj Monza 4

Antenna Size

8 x 22 mm (0.32 x 0.87 in)

Die-cut Size

11 x 25 mm (0.43 x 0.98 in)

International Standards

- EPC Class 1 Gen 2
- ISO 18000-6C

Application Areas

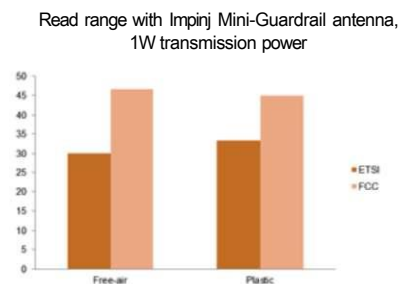
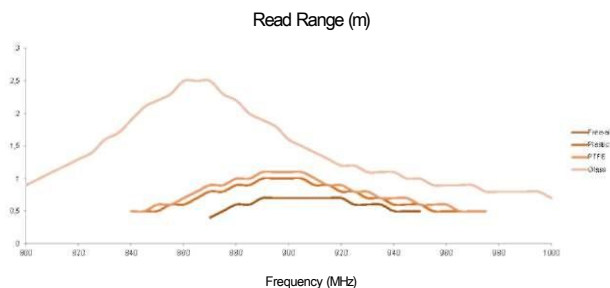
- Pharma and Healthcare
- Product Authentication
- Brand Protection
- Retail

TRAP

Perfect for Small Item-Level Retail and Pharmaceutical Applications

Technical Features

IC	Impinj Monza 4
Memory	EPC memory up to 128 bit / user memory up to 32 bit
Frequency	860-960 MHz
Antenna Size	8 x 22 mm / 0.32 x 0.87 in
Die-Cut Size	11 x 25 mm / 0.43 x 0.98 in
Web Width	27 mm / 1.06 in
Operating Temperature	-40 °C to +85 °C / -40 °F to +185 °F
Delivery Format	dry, wet and tag
Adhesive	Permanent pressure sensitive adhesive
Qty/Reel	2,000 per reel
Core Size	76 mm / 3 in
Shelf Life	+20 °C, 50 % RH / 68 °F, 50 % RH - minimum 2 years from the date of manufacturing



All the graphs are indicative: performance in real life applications may vary. The data has been determined based on calculations for transmitters with a 2W ERP output power level

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UHF Inlays and Tags

Product Range

With a wide variety of high performance IC platforms, SMARTRAC's UHF tags and inlays offer leading performance and memory options. Each product has a unique TID and a broadband RFID antenna design that enables end-users to reach and sustain consistently high levels of performance in all UHF frequency regions globally with the same tag. This represents critical competitive and logistical advantages for any fast-moving consumer goods company with manufacturing, distribution and customers located in different parts of the world. The same RFID tag can be used by the manufacturer, the logistics service provider and the retailer, to track and identify products accurately and cost-efficiently throughout the supply chain at item level.

SMARTRAC's operations are certified to the ISO 9001:2008 Quality Management System standards and the ISO 14001:2004 Environmental Management System standards.

Overview

Operating Frequency

860 - 960 MHz

International Standards

- ISO 18000-6C
EPC Class 1 Gen 2

Typical End-user Areas

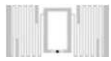
- Asset Tracking
- Automotive Parts
- Baggage Handling
- Brand Protection
- Consumable Authentication
- Industrial Applications
- Inventory Management
- Industrial Steel Pallets
- Logistics
- Retail Item-level Application
- Healthcare
- Supply Chain Management
- Water & Paint Pails
- ... and many more.

UHF Inlays and Tags

Product Range (selection)

Product

E I 3



Product Name

Trap

Impinj Monza 4 & 5 family

Accessory

Impinj Monza R6 family

Bling

Impinj Monza R6 family

MiniWeb

NXP U-Code family

Web Lite

Impinj Monza 5 family

Web

Impinj Monza 4 & 5 family

NXP U-Code family

Belt

Impinj Monza R6 family

NXP U-Code family

On Metal Tag

Impinj Monza 4QT

ETSI & FCC band

Frog 3D

Impinj Monza 4 family

ShortDipole

Impinj Monza 4, 5, R6 family

NXP U-Code family

DogBone

Impinj Monza 4 & R6 family

NXP U-Code family

Antenna & Die-cut Size

8 x 22 mm / 0.3 x 0.9"

11 x 25 mm / 0.4 x 1.0"

30 x 15 mm / 1.2 x 0.6"

33 x 18 mm / 1.3 x 0.7"

22 x 12 mm / 0.9 x 0.5"

25 x 15 mm / 1.0 x 0.6"

40 x 18 mm / 1.6 x 0.7"

43 x 21 mm / 1.7 x 0.8"

42 x 16 mm / 1.7 x 0.6"

43 x 21 mm / 1.7 x 0.8"

46 x 15 mm / 1.81 x 0.59"

49 x 18 mm / 1.93 x 0.71"

30 x 50 mm / 1.2 x 2.0"

34 x 54 mm / 1.3 x 2.1"

70 x 10 mm / 2.76 x 0.39"

73 x 13 mm / 2.87 x 0.51"

70 x 14 mm / 2.8 x 0.6"

73 x 17 mm / 2.9 x 0.7"

95 x 40 mm / 3.74 x 1.58 "

98 x 43 mm / 3.86 x 1.69 "

50 x 50 or 68 x 68 mm /

1.97 x 1.97 or 2.68 x 2.68"

53 x 53 or 76 x 76 mm /

2.09 x 2.09 or 3.00 x 3.00"

93 x 11 mm / 3.7 x 0.4"

97 x 15 mm / 3.8 x 0.6"

94 x 24 mm / 3.7 x 0.9"

97 x 27 mm / 3.8 x 1.1"

Additional memory, protocol and product configurations are available upon request.
Note: Pictures are for illustration only and are not to scale.

IC Total Memories

- Impinj Monza 4D 128 bit EPC + 32 bit
- Impinj Monza 4E 496 bit EPC + 128 bit
- Impinj Monza 4QT 128 bit EPC + 512 bit
- Impinj Monza 5 128 bit EPC + 32 bit
- Impinj Monza R6 96 bit EPC
- Impinj Monza R6-P 128 bit EPC + 32 bit
- NXP U-Code G2iL 128 bit EPC
- NXP U-Code G2iM 256 bit EPC + 512 bit
- NXP U-Code7 128-bit EPC

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SHORTDIPOLE

Excellent global performance on various materials.

Operating Frequency

860 - 960 MHz

Integrated Circuit (IC)

NXP UCODE 7

Antenna Size

93 x 11 mm (3.66 x 0.43 in)

Die-cut Size

97 x 15 mm (3.82 x 0.59 in)

International Standards

EPC Class 1 Gen 2

ISO 18000-6C

Quality Assurance

100% performance tested

ShortDipole tags and inlays are specially designed for supply chain management, apparel and brand protection applications offering excellent global performance also on lower detuning materials like cardboard and plastic.

Apparel
Brand Protection
Industrial Automation
Supply Chain Management
Sports Timing

Benefits:

Excellent global performance in various materials.

Optimum size product for 4 inch wide converted labels.

Unique TID and pre-serialized EPC number.

Paraller encoding i.e. multiple tags can be encoded at the same time.

Product status flag i.e. the tag can be used as EAS (Electronic Article Surveillance) tag without the need for a back-end data base.

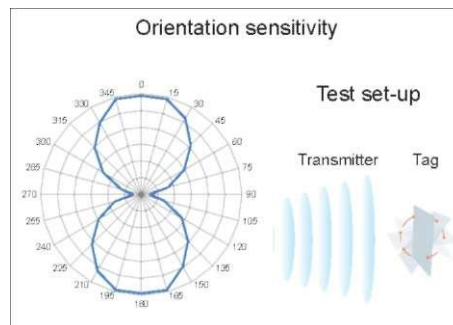
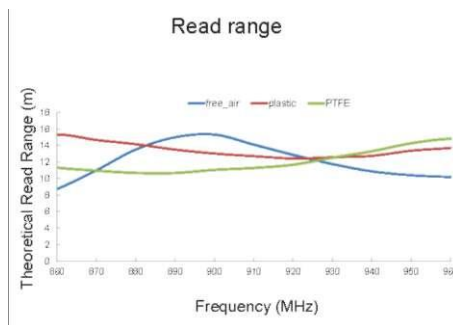
ISO 9001:2008 Quality Management System and ISO 14001:2004 Environment Management System support.

SHORTDIPOLE

Technical Features

IC	NXP UCODE 7
Memory	EPC memory 128 bit
Frequency	
Antenna Size	93 x 11 mm / 3.66 x 0.43"
Die-cut Size	97 x 15 mm / 3.82 x 0.59"
Web Width	100 mm / 3.94"
Operating Temperature	-40°C to 85°C / -40°F to 185°F
Bending Diameter (D)	> 50 mm, tension max. 10 N
Delivery Formats	Dry inlay, wet inlay, tag
Adhesive	Acrylic, hot melt adhesive
Adhesive Usage Temperature	min. -40°C to 150°C / min. -40°F to 302°F
Qty/Reel	20,000 dry or wet inlays per reel, 5,000 tags per reel
Core Size	76 mm / 3"
Shelf Life: minimum of 2 years from the date of manufacture in	20°C / 68°F, 50% RH

SMARTRAC TECHNOLOGY GROUP uses three different qualification methods to evaluate the quality and reliability of RFID inlay and tag products. Products are tested according to IEC 60068-2-67 (temperature and humidity), JESD22-A104-B (temperature cycling) and an in-house developed bending test.



All the graphs are indicative: performance in real life applications may vary. The data has been determined based on calculations for transmitters with a 2W ERP output power level.

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WEB LITE

High-performance retail tag in a small package.

noun

Web Lite Monza 5 tags and inlays meet growing retail industry demand for inlays in smaller form factors. A design focusing on the performance requirements of small item tagging has won approval from several retailers for applications across a range of specific categories.

Web Lite offers good performance for retail applications in a compact form factor ready to fit several delivery formats.

Benefits:

Compact form factor with excellent performance.

Specifically designed for retail applications.

ISO 9001:2008 Quality Management System and ISO 14001:2004 Environment Management System support.

Serialized TID.

Operating Frequency

860 - 960 MHz

Integrated Circuit (IC)

Impinj Monza 5

Antenna Size

46 x 15 mm (1.81 x 0.59 in)

Die-cut Size

49 x 18 mm (1.93 x 0.71 in)

International Standards

EPC Class 1 Gen 2

ISO 18000-6C

Quality Assurance

100% performance tested

Apparel

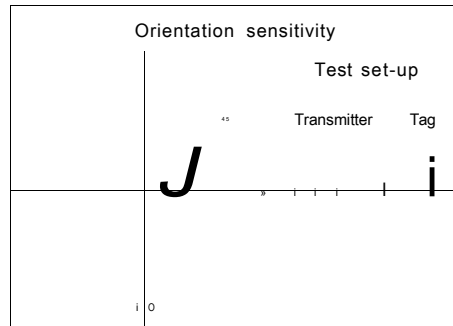
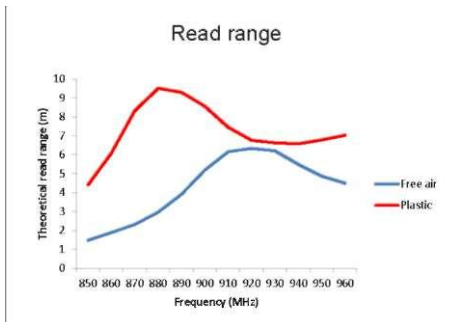
Brand Protection

WEB LITE

Technical Features

IC	Impinj Monza 5
Memory	EPC memory 128 bit
Frequency	
Antenna Size	46 x 15 mm / 1.81 x 0.59"
Die-cut Size	49 x 18 mm / 1.93 x 0.71"
Web Width	52 mm / 2.05"
Operating Temperature	-40°C to 85°C / -40°F to 185°F
Bending Diameter (D)	> 50 mm, tension max. 10 N
Delivery Formats	Dry inlay, wet inlay, tag
Adhesive	Acrylic, water borne adhesive
Adhesive Usage Temperature	min. -20°C to 80°C / min. -4°F to 176°F
Qty/Reel	15,000 dry or wet inlays per reel, 5,000 tags per reel
Core Size	76 mm / 3"
Shelf Life: minimum of 2 years from the date of manufacture in	20°C / 68°F, 50% RH

SMARTRAC TECHNOLOGY GROUP uses three different qualification methods to evaluate the quality and reliability of RFID inlay and tag products. Products are tested according to IEC 60068-2-67 (temperature and humidity), JESD22-A104-B (temperature cycling) and an in-house developed bending test.



All the graphs are indicative: performance in real life applications may vary. The data has been determined based on calculations for transmitters with a 2W ERP output power level.

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WEB

Optimized size and shape for apparel applications.

Operating Frequency

860 - 960 MHz

Integrated Circuit (IC)

NXP UCODE 7

Antenna Size

50 x 30 mm (1.97 x 1.18 in)

Die-cut Size

54 x 34 mm (2.13 x 1.34 in)

International Standards

EPC Class 1 Gen 2

ISO 18000-6C

Quality Assurance

100% performance tested

Apparel
Brand Protection
Supply Chain Management

Web tags and inlays are designed for the unique identification of items such as apparel and electronics. They are suitable especially for item-level retail, logistics and supply chain applications.

Web products are compact and ideally shaped inlays for apparel hang tags providing high read reliability with low total applied costs.

Web tags with the NXP UCODE 7 IC, used in retail applications, have passed the Arkansas Radio Compliance (ARC) tests defined by the RFID Research Center at the University of Arkansas. Retailers and brand owners can deploy SMARTRAC's Web tags for apparel globally, as they comply with frequency regulations set up in US (FCC), EU (ETSI) and Asia.

Benefits:

High end product for item-level tagging in apparel and electronics.

Ideal size and shape for apparel hang tags, compact and reliable.

Perfect for low cost hang tags and care labels.

Excellent performance even when stacked in close proximity.

University of Arkansas approved, ARC categories A, B, D, I, and K.

Unique TID and pre-serialized EPC number.

Parallel encoding i.e. multiple tags can be encoded at the same time.

Product status flag i.e. the tag can be used as EAS (Electronic Article Surveillance) tag without the need for a back-end data base.

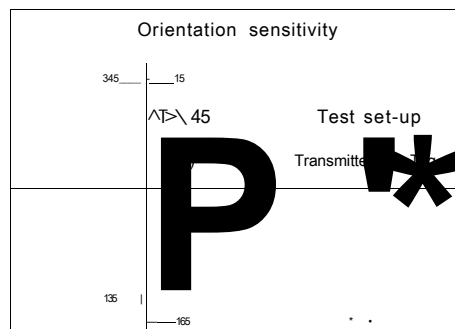
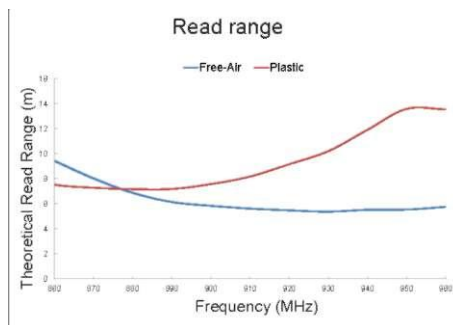
ISO 9001:2008 Quality Management System and ISO 14001:2004 Environment Management System support.

WEB

Technical Features

IC	NXP UCODE 7
Memory	EPC memory 128 bit
Frequency	
Antenna Size	50 x 30 mm / 1.97 x 1.18"
Die-cut Size	54 x 34 mm / 2.13 x 1.34"
Web Width	60 mm / 2.36"
Operating Temperature	-40°C to 85°C / -40°F to 185°F
Bending Diameter (D)	> 50 mm, tension max. 10 N
Delivery Formats	Tag
Adhesive	Acrylic, water borne adhesive
Adhesive Usage Temperature	min. -15°C to 90°C / min. 5°F to 194°F
Qty/Reel	2,000 per reel
Core Size	76 mm / 3"
Shelf Life: minimum of 2 years from the date of manufacture in	20°C / 68°F, 50% RH

SMARTRAC TECHNOLOGY GROUP uses three different qualification methods to evaluate the quality and reliability of RFID inlay and tag products. Products are tested according to IEC 60068-2-67 (temperature and humidity), JESD22-A104-B (temperature cycling) and an in-house developed bending test.



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