Product Datasheet

BEONTAG IRONSIDE CLASSIC



Description

The most durable tag for challenging industrial asset management applications.

Electrical specifications

Device type
UHF RFID / EPCglobal Gen2v2

Operational frequency
Global 865-928MHz

IC type
Impinj M780™
- EPC 496 bit; User 128 bit; TID 96 bit

-NXP UCODE 9xm
3 Customer configurable memory options:
1.EPC 128 bit; User 752 bit; TID 96 bit
2.EPC 256 bit; User 624 bit; TID 96 bit (as default)
3.EPC 496 bit; User 384 bit; TID 96 bit

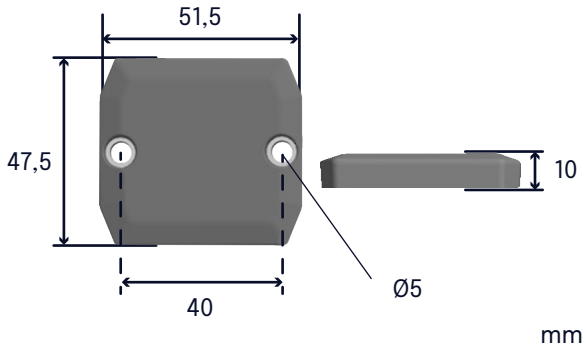
EPC memory content
Unique number encoded as a default

Read range (2W ERP)*
M780=U9xm (Global)
-On metal up to 20 m / 65 ft
-On plastic up to 8 m / 26 ft

Applicable surface materials*
Works on any material but optimized for metal.

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

Mechanical specifications



Tag materials
High quality engineering plastics. Surface thermoplastic elastomer.

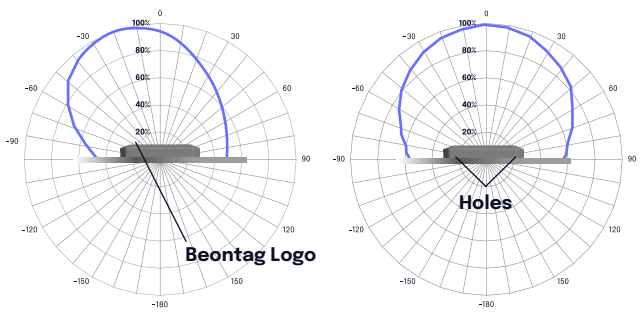
Delivery format
Single

Amount in box
500 pcs

Weight
22g

Dimensions
51,5 x 47,5 x 10 mm/
2.03 x 1.87 x 0.39 in

Radiation pattern



Personalization options

Pre-encoding
Customer specific encoding of EPC or user memory. Locking permanently or with password.

Customized laser engraving
Customer specific layout including logo, text, numbers.

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Environmental resistance

Operating temperature
-40˚C to +85˚C / -40˚F to +185˚F

Ambient temperature
-55˚C (for 3h) to +105˚C /-67˚F (for 3h) to +221˚F

Peak temperature
+125˚C /+257˚F 1h duration

IP classification
IP68

Weather ability
Excellent, including UV-resistance and sea water

Vibration resistance
JESD22-B103B, service condition 2; vibration that is aligned with tag thickness (z-axis)

Chemical resistance
No physical or performance changes in:
- 168 hour Motor oil exposure
- 168 hour Salt water (salinity 10%) exposure
- 168 hour Sulfuric acid (10%, pH 2) exposure
- 24 hour NaOH (10%, pH 13) exposure

Generally good against: Methanol (moderate concentrations), ethanol (moderate concentrations), glycerine, ethylene glycol, consistent grease, most acids, bases and tensides such as sulfuric acid 96%, nitric acid 10%, NaOH 50%, soap solution 30%. Testing recommended for hydrocarbons and carboxylic acids. Acetone 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 Beontag for more specific information.

Installation instructions

Beontag Ironside Classic can be attached with several fixing methods:

1. 3M 300LSE high performance acrylic adhesive
When background adhesive is ordered the tag is delivered with adhesive attached. 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. Structural adhesive
Structural adhesives such as 3M DP110 and SikaFast 5215 provide very high bond strength and resistance against mechanical stress. When tag is attached with structural adhesive, insert a layer of adhesive 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 contact adhesive supplier for exact fixing instructions.

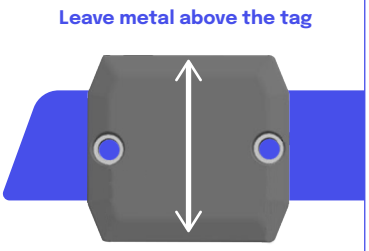
3. Mechanical fixing - Screws M4, pop rivets 4mm
Mechanical fixing is always recommended for applications that includes risk for high mechanical stress or low temperature during the fixing. Make sure there is no air gap left in between the metal surface and tag.

4. Additional fixing tools - welding bracket



When the application is too demanding for adhesives, but the metal surface cannot be punched for screw or rivet fixing, welding the tag with special bracket is an option for attachment. Welding bracket is made of stainless steel and allows attachment on both flat and curved surfaces.

With all attachment methods the optimal performance is achieved when there is metal left above the tag.
Tag orientation as shown with arrow should be considered when using linear reader antennas.



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Order information

Product number: **3004166**
Product Name: **Beontag Ironside Classic M780**

Product number: **3005092**
Product Name: **Beontag Ironside Classic 9xm**

For other versions, additional information and technical support please contact Beontag.

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About Beontag

From the science of graphic and label materials, RFID and wireless IoT enablers, we create solutions across the value chain to deliver digital transformation for businesses around the world.

Sustainability is at the core of what we do and we strongly believe that by substituting non-renewable materials and innovating through more sustainable and renewable products, we act as an ESG enabler for our customers' value chain.

Beontag is one of the world's leading providers of RFID and wireless IoT solutions, being present in more than 40 countries with 7 R&D centers and 2,000 employees, in constant development of technological and sustainable solutions designed to connect items, and gain efficiency and end-to-end traceability.

CONTACT US FOR MORE INFORMATION:
beontag.com

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