Product Datasheet BEONTAG FERROWAVE FLAG



i) Description

Versatile on metal label for item-level asset and part tracking with excellent performance.



Electrical specifications

Device type UHF RFID / EPCglobal Gen2v2

Air interface protocol EPCglobal Class1 Gen2 ISO 18000-6C

Operational frequency Global 865 – 928 MHz

IC type Impinj Monza 4E™

Memory configuration EPC 496 bit; User 128 bit; TID 96 bit **EPC memory content** Same EPC by default

Read range (2W ERP)* On metal up to 12 m / 30 ft Off metal up to 4 m / 13 ft

Applicable surface materials* Works on all surfaces but optimized for metal

Attachment on curved surface* Label can be attached on a curved surface. Check installation instructions for more details.

* Read ranges are theoretical values that are calculated for non-reflective environment with maximum allowed operating power according to ETSI EN 302 208 (2W ERP). Read range is measured on 15x10cm metal plate. The asset shape and location of tag on the asset will influence the read range.



Mechanical specifications

Label surface

White PET with good printability. Resin ribbon recommended for best durability

Background adhesive

Permanent adhesive for general purpose use

Weight 0,2 g

Delivery format

2000 pcs good labels on reel, bad ones marked with "XXX" printing.

Pitch on reel 25,4 mm / 1"

Reel core inner diameter 76 mm / 3"

Tag dimensions

46 x 21 x 0.2 mm / 1.81 x 0.83 x 0.01"



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₩ Radiation pattern

Radiation pattern is heavily affected by the shape of the tagged asset. Testing in real environment is recommended to find the best orientation and location for the tag.





Environmental resistance

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Installation instructions

For easier installation Ferrowave Flag has a shape that indicates the optimal position for the metal edge. When attaching the tag ensure that metal edge is within the indicated area for optimal performance.



For optimal attachment

• Select a smooth surface without uneven areas below tag

 \cdot Avoid touching the background adhesive and IC location during installation

When mounting the label with its adhesive, clean and dry the surface for obtaining the maximum bond strength. Typical cleaning solvents are heptane or acetone for oily surfaces or isopropyl alcohol for plastics. Do not use household cleaning solvents that contain oils. Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

Ideal application temperature is from +20°C to +30°C (+68°F to +86°F). Bond strength can be improved with firm application pressure. Application at temperatures below 10°C (50°F) is not recommended.

Standard polarization is along the tag's longest dimension. As the **Beontag Ferrowave Flag** uses metallic asset as part of the antenna the asset may also affect the polarization.



Performance of the tag will vary depending on the installation location. Therefore it is recommended to test the optimal location for the tagged asset. You may also contact Beontag for recommendations.

Smallest recommended bending diameter of the **Beontag Ferrowave Flag** is 50mm. Smaller radius might have an effect on adhesion depending on the surface material.

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Product number: **3003441** Product Name: **Beontag Ferrowave Flag M4E** For other versions, additional information and technical support please contact Beontag.

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About Beontag

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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

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