PRODUCT DATASHEET
Ironside Slim™

Versatile and durable tag for global asset tracking applications with excellent performance

ELECTRICAL SPECIFICATION

Device type
RAIN RFID / EPCglobal Gen2v2

Operational frequency
Global: 865-928 MHz

IC options and memory configurations
Impinj M780™ - EPC 496 bit; User 128 bit; TID 96 bit

EPC memory content
Unique number encoded as a default

Read range (2W ERP)*
M780 (Global):
- On metal up to 17 m / 55 ft
- Off metal up to 6 m / 20 ft

Applicable surface materials*
Ideal application on metal, works on any material

*Radiation patterns are theoretical values that are calculated for non-reflective environment. Different surface materials may influence performance.

MECHANICAL SPECIFICATION

Tag materials
High quality engineering plastics.

Weight
15.5 g

Delivery format
Single

Amount in box
600 pcs

Dimensions
85 x 21 x 10 mm / 3.35 x 0.83 x 0.39 in

ENVIRONMENTAL RESISTANCE

Operating temperature
-35°C to +85°C / -31°F to +185°F

Ambient temperature
-35°C to +85°C / -31°F to +185°F

IP classification
IP68

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

Acetone should be avoided. For achieving increased chemical tolerance, the tag is designed to be attached with industrial adhesives such as polyurethane adhesives or epoxies.

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 Zebra for more specific information.
INSTALLATION INSTRUCTIONS

Ironside Slim™ can be attached with several fixing methods:

1. High performance acrylic adhesive (not included by default)

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. Other adhesive fixings
   - Polyurethane adhesives
   - Epoxies
   - Silicone sealants

Structural adhesives like 3M DP410 provide very high bond strength and resistance against mechanical stress. When tag is attached with sealant adhesive, insert a layer of sealant under the tag and press the tag on the surface. Increase the bond by adding extra sealant from the tag holes. Adhesive type and thickness may have an effect on tag performance. Insert maximum 2mm layer of adhesive under the tag. Please refer to adhesive supplier for exact fixing instructions and test the performance with chosen adhesive.

3. Mechanical fixing

Mechanical fixing is recommended to be used in every application that includes risk for high mechanical stress or low temperature during tag fixing. During fixing make sure there is no air gap left in between the metal surface and tag. Hole dimensions are identical with and without compression limiters. Ironside Slim comes by default with compression limiters included. DIN 7985 M4 screws can be used as a reference.

Ideally the tag is placed on large even metal surface with direct metal contact underneath the whole tag. If placement to edge is needed follow below guidance on positioning and leave metal on the left side for the best performance. Tag polarization is along the longest dimension. This should be taken into account when using linearly polarized reader antennas.

PERSONALIZATION OPTIONS

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

Customized data label
- Customer specific layout including logo, text, numbers, barcodes etc.

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

Personalization Kit
- Ironside Slim™ is available also as a Personalization kit where 700 blank PET data labels are delivered on reel per each box of 600 tags. Labels can be printed with standard label printers. Resin ribbon is recommended for best durability.

ORDER INFORMATION

Zebra part number: 10041053
Product name: Ironside Slim™ M780

For additional information and technical support, please contact your Authorized Zebra Reseller or Zebra Technical Support.

DISCLAIMER

THE MATERIALS, PRODUCTS AND SERVICES ARE SOLD SUBJECT TO ITS STANDARD CONDITIONS OF SALE, WHICH ARE INCLUDED IN THE APPLICABLE DISTRIBUTOR OR OTHER SALES AGREEMENT. ALTHOUGH ANY INFORMATION, RECOMMENDATIONS, OR ADVICE CONTAINED HEREIN IS GIVEN IN GOOD FAITH, ZEBRA MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, (I) THAT THE RESULTS DESCRIBED HEREIN WILL BE OBTAINED UNDER END-USE CONDITIONS, OR (II) AS TO THE EFFECTIVENESS OR SAFETY OF ANY DESIGN INCORPORATING ITS PRODUCTS, MATERIALS, SERVICES, RECOMMENDATIONS OR ADVICE. EXCEPT AS PROVIDED IN ZEBRA STANDARD CONDITIONS OF SALE, ZEBRA AND ITS REPRESENTATIVES SHALL IN NO EVENT BE RESPONSIBLE FOR ANY LOSS RESULTING FROM ANY USE OF ITS MATERIALS, PRODUCTS OR SERVICES DESCRIBED HEREIN.

Each user bears full responsibility for making its own determination as to the suitability of Zebra products, materials, services, recommendations, or advice for its own particular use. Each user must identify and perform all tests and analyses necessary to assure that its finished systems incorporating Zebra products, materials, or services will be safe and suitable for use under end-use conditions. Nothing in this or any other document, nor any oral recommendation or advice, shall be deemed to alter, vary, supersede, or waive any provision of this Disclaimer, unless any such modification is specifically agreed to in a writing signed by Zebra.