

# AXEM+

Services

Tags & labels

## Studies

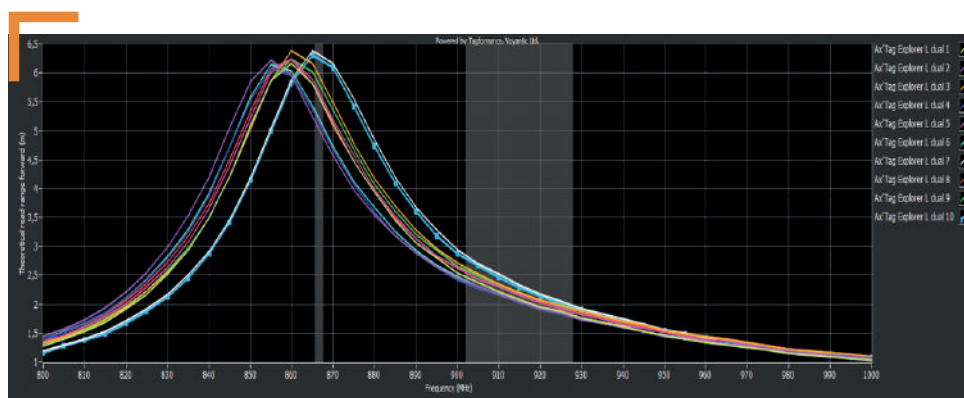
- Analysis of the customer's needs and environment.
- Evaluation of the functionalities, performances and behaviours of the tags according to a set of specifications:
  - o Simulations: design and modeling of the antenna and its environment, optimizing antenna parameters and performance.
  - o Materials characterization.
  - o Study of the sensitivity of the tags to different factors: orientation, sensibility and radiation diagram.
  - o Analysis of tag behaviour in a specific environment.
  - o Tests of the tags' resistance to high temperature cycles up to 400°C.
  - o Comparative studies.
- Recommendations based on the results of research and measurements.



Anechoic chamber to test tag reading performance



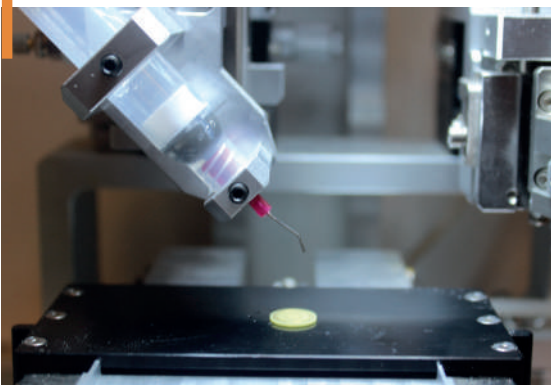
Climate chamber to test the environmental resistance of tags



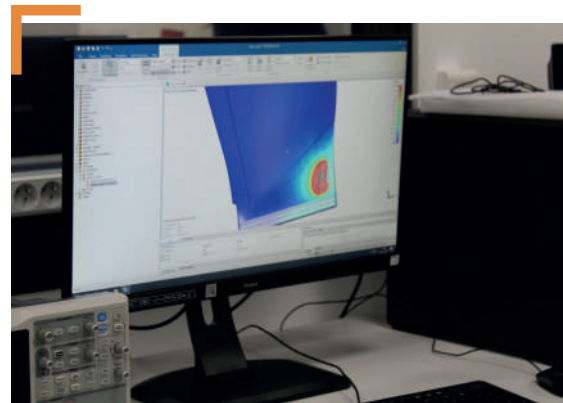
Measures of the reading performance of the Explorer L dual tag at the Voyantic

## Custom design

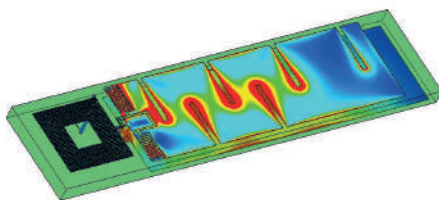
- Adaptation of existing products to a customer project:
  - Fixing method: standard, reinforced adhesive.
  - Type of packaging: label or hard tag.
  - Chip type: UHF, HF, LF, dual technology.
  - Memory capacity: up to 64Kbits.
- Compliance with specific norms and standards:
  - GS1 (GTIN, GIAI...).
  - ATA Spec 2000 (aeronautics, defence).
  - ATEX zones 1 and 2.
  - OEKO-TEX, MR conditional.
- Creation of custom products in the AXEM Lab according to customer specifications: simulation, prototyping, performance measurements in an anechoic chamber.



Chip transfer machine



Design of a tag for aeronautics



Surface current density of a tag



Design of a tag that can be integrated into concrete

## Personnalisation

- Marking:
  - Printing (colour or black and white; factory and printer): logo, barcode, Datamatrix...
  - Laser engraving: logo, barcode, Datamatrix...
  - Marking in the plastic mould
- Encoding according to market standards (GS1, ATA Spec 2000, GIAI, VDA...).



GIAI encoding and impression of an AX'Label Platina RFID label with **TOSHIBA** printer



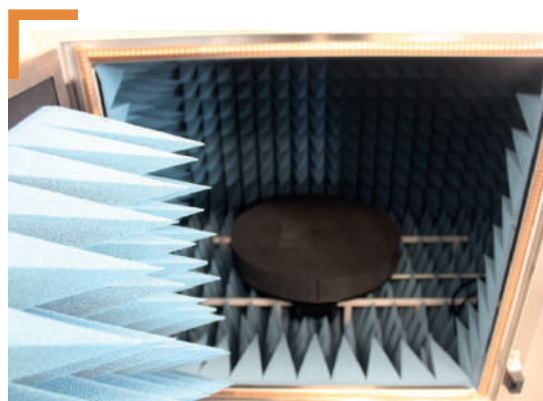
Various personnalisation options for AX'Tag Explorer L dual: marking in the plastic mould or colour printed label

## Quality

- Ex-factory quality control of products.
- Homogeneity and stability of product performance over time.
- Quality policy integrated into project management.



RFID label as strong as hard tag



Verification of the frequency response of the tags according to the customer's needs