

# INVENGO MUTRAK RAIN RFID TAG



## About Invengo's MuTRAK Ultra Small and Robust Tag

Invengo's MuTRAK RAIN RFID (UHF) tags have been specifically designed to meet specific item-level tracking requirements in terms of size, robustness and read performance. An innovative design makes MuTRAK one of the smallest (7 x 7 x 1,4 mm) and sturdiest encapsulated UHF tag available on the market, able to resist harsh processes such as injection molding. The MuTRAK UHF tag is ultra-small and provides a low cost and discrete and easy to affix identifier device.



Invengo's Textile Services division provides an innovative and highly performant IoT Linen Inventory Management Platform (ACUITY), enabling the industrial Laundry industry worldwide as well as their Hospitality and Healthcare customers, to gain continuous access to real-time inventory visibility/availability of their textile assets and to make intelligent business decisions to increase their profitability.

Invengo Technology Pte. Ltd. (Singapore) is the International Headquarters of Invengo Information Technology Co. Ltd, listed on Shenzhen Stock Exchange (SZSE: 002161.SZ). Employing over 600 people globally, Invengo is one of the largest publicly traded, RFID/IoT oriented companies in the world.

## Key Benefits

- Small and discreet
- Ideal to identify small items
- Resistant to injection molding processes
- Low cost identifying device

## Product Specifications

### General

|                       |  |
|-----------------------|--|
| <b>Frequency</b>      | 860 to 960 MHz   |
| <b>Operating Mode</b> | Passive  |
| <b>Tag Dimensions</b> | Standard 7 x 7 mm (0.27 x 0.27 in)                                 |
| <b>Tag Thickness</b>  | 1,4 mm (0.05 in)   |
| <b>Tag Color</b>      | Black  |
| <b>Material</b>       | Epoxy  |
| <b>Marking</b>        | Chip reference and date code laser-engraved on transponder housing |

### RFID

|                                |  |
|--------------------------------|--|
| <b>Protocols Supported</b>     | EPCglobal UHF Class 1 Gen 2,<br>ISO 18000-63 |
| <b>Integrated Circuit (IC)</b> | Monza 5                                      |
| <b>EPC size</b>                | 128 bits                                     |
| <b>TID</b>                     | 96 bits                                      |

### Laundry Cycle Performance

|                              |   |
|------------------------------|---|
| <b>Maximum Temperature</b>   | 200°C (392°F) / 15 seconds /                      |
| <b>Exposure</b>              | 2.5 bars (36.28 PSI)                              |
| <b>Tunnel Washer</b>         | 90°C (194°F) / 15 minutes                         |
| <b>Pre-drying in Tumbler</b> | 160°C (320°F) / 30 minutes                        |
| <b>Tunnel Finisher</b>       | 185°C (365°F) / 30 minutes                        |
| <b>Sterilization Process</b> | 134°C (273°F) / 20 minutes                        |
| <b>Water Extractor Press</b> | 60 bars*  |
| <b>Chemical resistance</b>   | All standard chemicals used in<br>laundry process |
| <b>Warranty</b>              | 200 cycles or 3 years<br>minimum guaranteed       |

\* Performance level measured and guaranteed in Invengo's Laundry tests and conditions

### Delivery

|                           |  |
|---------------------------|--|
| <b>Delivery Packaging</b> | 2000 units in transparent plastic bags<br>(approx. weight 300 g) |
| <b>Parcel Labeling</b>    | Sales reference, order number,<br>quantity                       |
| <b>Quality Control</b>    | 100% functional and visual inspection                            |
| <b>Minimum Order</b>      | 2000 units   |

|                          |                     |
|--------------------------|---------------------|
| <b>Product Reference</b> | MuTRAK v2: TM650E10 |
|--------------------------|---------------------|

## Additional Information

The MuTRAK tags can be used in various applications such as Professional Textile Services where it can be either heat-sealed onto textile items (i.e. garments and linens), or inserted in small pouches, and general industrial applications where a small and robust tag is required (i.e. work tools, surgical tools, metal containers and bottles, sign and electric poles).

MuTRAK provides excellent read performance using Invengo's fixed and portable UHF RFID reading stations. However, read distance is limited to up to 10 cm. To obtain greater reading distances, we recommend Invengo's LinTRAK UHF tag.



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