Ultra-Rugged UHF RFID Tags
for Commercial and Industrial
Textile Applications

- UHF technology to read hundreds of tags simultaneously
- More than 2-meter reading distance
- Cost efficient solution with exceptional durability for washing, drying, dry cleaning and ironing
- Suitable for high-pressure extractors up to 60 bar
- Small, soft, flexible material ideal for textiles, linens, garments and accessories
- Conforms to “ISO/IEC 18000-6 Type C (EPC Gen2)”
- 100% non-magnetic construction, suitable for hospital use
UHF RFID Tag
WT-A521/A522

Fujitsu’s Flexible RFID Tags

Businesses can take advantage of the new ultra-rugged Fujitsu WT-A521/A522 flexible and Washable UHF RFID tags to manage their textile, linen and garment assets. Combining the efficiency of check-at-once inventory management with the extended range and accuracy of state-of-the-art UHF RFID tag technology, customers will greatly improve receiving, shipping, and tracking assets while keep their costs low by improving workflow and efficiency.

Advantages of UHF Technology

**Speed**

UHF efficiency increases tag read performance to read hundreds of tags in a single pass.

**Rugged**

Can withstand high pressure extractors and flatworks irons used in high-throughput laundries.

**Accuracy**

Inventory management can be performed accurately and easily by reading multiple tags with very low error rates.

**ROI**

Installation of UHF technology will provide cost-effective garment management by reducing labor cost associated with barcode or high frequency RFID tags.

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Fujitsu RFID Tag WT-A521</th>
<th>Fujitsu RFID Tag WT-A522</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Fujitsu RFID Tag WT-A521</td>
<td>Fujitsu RFID Tag WT-A522</td>
</tr>
<tr>
<td>RFID Standard</td>
<td>ISO/IEC 18000-6 TypeC (EPC Gen2)</td>
<td>ISO/IEC 18000-6 TypeC (EPC Gen2)</td>
</tr>
<tr>
<td>Size &amp; Weight</td>
<td>55(W)x10(D)x1.6(H)mm, 1g</td>
<td>55(W)x10(D)x1.6(H)mm, 1g</td>
</tr>
<tr>
<td>EPC Number Area</td>
<td>96bit permanent locked</td>
<td>96bit password locked</td>
</tr>
<tr>
<td>User Memory</td>
<td>512 bits</td>
<td>512 bits</td>
</tr>
<tr>
<td>Reading Range</td>
<td>902-928MHz</td>
<td>902-928MHz</td>
</tr>
<tr>
<td></td>
<td>4W erp : 250 cm (Typical)</td>
<td>4W erp : 250 cm (Typical)</td>
</tr>
<tr>
<td></td>
<td>2W erp : 220 cm (Typical)</td>
<td>2W erp : 220 cm (Typical)</td>
</tr>
<tr>
<td></td>
<td>865.6-867.7 MHz</td>
<td>865.6-867.7 MHz</td>
</tr>
<tr>
<td></td>
<td>2W erp : 200 cm (Typical)</td>
<td>2W erp : 200 cm (Typical)</td>
</tr>
<tr>
<td>Tagging</td>
<td>Sewing, Heat-sealing</td>
<td>Sewing, Heat-sealing</td>
</tr>
<tr>
<td>Estimated Lifetime</td>
<td>200 washing cycles or 3 years, whichever comes first</td>
<td>200 washing cycles or 3 years, whichever comes first</td>
</tr>
<tr>
<td>Estimated Failure Rate</td>
<td>0.1% excluding DOA *1</td>
<td>0.1% excluding DOA *1</td>
</tr>
</tbody>
</table>

Environmental Resistance

- **Washing Method**: Laundry, Dry cleaning*2 (Perchloroethylene, Hydrocarbon solvent)
- **Water Extraction Pressure**: 60 bar *3
- **Water Resistance**: Water resistant
- **Chemical Resistance**: Detergent, Softener, Bleach (Dyeing/ Chlorine), Alkali *4
- **Autoclave Heat Sterilization**: 121 ºC for 15-20 minutes - 100 cycles
- **Heat Resistance**:
  - Drying: 85 ºC (Up to 60min.) or 120 ºC (Up to 10 min.)
  - Ironing: 200 ºC (Up to 10 sec. with press cloth)
- **Humidity/ Temperature**:
  - Operating: -20 to 50 °C, 10 to 95% RH
  - Storage: -40 to 55 °C, 6 to 95% RH

All data are results performed in our test condition according to Japan Industrial Standard JIS L 0217 - 102, 103, 301, 401, 402. Your test result may vary.

*1: Excludes appearances (discoloration, bending, distortion, etc.) due to normal use.
*2: Conditions for dry cleaning: Up to 10min./cycle (Washing), 30min./cycle at up to 60ºC (Drying).
*3: Tested in Fujitsu Laundry testing conditions - 100 cycles.
*4: The tag has been tested for 10 times at the condition of JIS L 0856 Severe test.

Installation Notes:
Do not attach near metal objects.