

Data Sheet

Ultra-Rugged UHF RFID Tag

Fujitsu WT-A543

Wash, dry, track, repeat

Fujitsu's latest industrial-strength, flexible UHF RFID tags are designed for ultra-rugged commercial and industrial textile applications. Uniquely created with a compact form factor that is 30 percent smaller than previous generation tags, the Fujitsu WT-A543 Linen Tag can be inserted into virtually any linen and go effectively unnoticed. Laundries will greatly improve linen and garment processing with near 100 percent accurate reading by leveraging Fujitsu's RFID technology. Garment and linen owners will see improved asset tracking and reduced loss, while enhancing their bottom line by improving workflow and efficiency. Fujitsu's ultra-rugged WT-A543 RFID Linen Tag is suitable for any linen used in hospitality, healthcare, hotel, food and beverage, and entertainment applications.

Key Features

- Soft, flexible material ideal for textiles, linens, and garments
- Smaller form factor for direct inseam attachment
- New mechanical design for improved performance
- Exceptional durability for washing, drying, dry cleaning
- Suitable for high-pressure extractors up to 60 bar
- Suitable for Autoclave sterilization
- 100% non-magnetic construction suitable for hospital use

Using Fujitsu's innovative UHF RFID tag solutions, commercial and industrial laundries can greatly enhance asset tracking processes and improve efficiency for sorting and tracking linen items. UHF technology increases tag read performance to read hundreds of tags in a single pass, making inventory management faster and more accurate. The WT-A543 Linen Tag was designed from the ground up to meet industry demand to withstand high-pressure extractors, flatworks irons, industrial washing and drying, and all rugged environments without losing performance. Fujitsu tag technology provides cost-effective garment management.



Fujitsu WT-A543 Linen Tag Specifications

RFID Standard	ISO/IEC 18000-63 (EPC Gen2)
Regulations	RoHS: Conforms to RoHS regulations China RoHS: Conforms to Administrative Measure on the Control of Pollution Caused by Electronic Information Products
MRI Safety Information	MR Conditional (Static magnetic field of 1.5-T and 3-T)
Size & Weight	55 (W) x 7 (D) x 1.6 (H) mm, 0.8g
Tag Type	Passive
EPC Number Area	128bit/ unlock (The first 96bit are pre-written by Fujitsu)* ¹
Reading Range (Textile)	902-928 MHz: 4W eirp 250 cm (Typical), 2W erp: 220 cm (Typical) 865.6-867.7 MHz: 2W erp 200 cm (Typical)
Reading Range (Rubber Mat)	902-928 MHz: 4W eirp 200 cm (Typical) 865.6-867.7 MHz: 2W erp: 220 cm (Typical)
Tagging	Directly sewing into seam of linen items; sewing with patch/pouch, heat sealing
Estimated Lifetime	200 washing cycles/dry cleaning or 3 years from shipping date, whichever comes first * ²
Washing Method	Laundry, dry cleaning (Perchloroethylene, Hydrocarbon solvent)* ³
Water Extraction Pressure	Up to 60 bar
Chemical Resistance	Standard Detergent, Softener, Bleach (Oxygen/Chlorine), Alkali, Acetic/Peracetic Acid
Autoclave Sterilization	121 °C, 20 minutes, 80 cycles * ⁴
Heat Resistance	Drying: 85 °C (Up to 60 min.) or 120 °C (Up to 10 min.) Ironing: 200 °C (Up to 10 sec. with press cloth)
Temperature/Humidity	Operating: -20 to 50 °C, 10 to 95% RH Storage: -40 to 55 °C, 8 to 95% RH
Heat Sealing Conditions (max)* ⁵	Temp (Celsius): 225° Time (seconds): 30 Pressure (bar): 7

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

*1: Last 32 bits are not specified. Modifying EPC area is not covered by product warranty

*2: Verified with independent testing - nominal industrial laundry conditions

*3: Conditions for dry cleaning: Up to 10 minutes/cycle for washing, and 30 minutes/cycle within 60 °C for drying

*4: This test was conducted under Fujitsu Frontech's laboratory

*5: When heat sealing the tags, please do not exceed above conditions

Contact Fujitsu Frontech North America

Address: 36 Technology Dr, Suite 150, Irvine, CA 92618

Phone: 877-766-7545

Email: FFNA.sales@fujitsu.com

Website: fujitsufrontechna.com/wt-a543-linen-tag

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