Data Sheet
Ultra-Rugged UHF RFID Tag Softight W5R/W5RL

Fujitsu Frontech's ultra-rugged UHF RFID tag Softight W5R/W5RL is designed for superior performance and durability for flat linen applications. The industrial-strength RFID Tags were specifically created to withstand high-pressure extractors without sacrificing quality or performance. At just 52.5 or 59.5mm wide and 6.5mm depth, the ruggedized RFID Tag comes in a compact footprint that is smaller than competitor tags. The small form factor allows for insertion into virtually any type of flat linen, with the tag being virtually unnoticeable when installed. Laundries will greatly improve linen processing with near 100 percent accurate reading by leveraging our RFID Tags' innovative technology. All this comes at a cost-effective price so that linen processing facilities can reduce their cost of entry and enhance their bottom line.

Key Features

- Flexible materials ideal for flat linen applications
- Small form factor for simplified attachment
- Lower cost of entry enhances bottom line
- Exceptional durability for washing, pressing, drying
- Suitable for high-pressure extractors up to 60 bar
- Read hundreds of tagged items in a single pass
- Near 100% accuracy rate improves inventory management

Using Fujitsu Frontech's UHF RFID tag solutions, commerical and industrial laudries can greatly enhance asset tracking processes and improve efficiency for sorting and tracking flat linen items such as towels, sheets, and pillow cases. UHF technology increases tag read performance to read hundreds of tags in a single pass, making inventory management faster and more accurate. The Softight W5R/W5RL RFID Tags were designed to meet industry demand to withstand high-pressure extractors, industrial washing and drying, and rugged environments without losing performance, all in a cost-effective package.

Softight W5R/W5RL RFID Tag Specifications

Product Name	Softight W5R	Softight W5RL
Model	WT-A546	WT-A548
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	52.5 (W) x 6.5 (D) x 2.4 (H) mm, 1.0g	59.5 (W) x 6.5 (D) x 2.4 (H) mm, 1.0g
Tag Type	Passive	
EPC Number Area	96 bit/ unlocked (pre-written by Fujitsu Frontech)	
Reading Range (Textile*1)	902-928 MHz: 4W eirp 250 cm (Typical) 2W erp 220 cm (Typical) 865.6-867.6 MHz: 2W erp 250 cm (Typical)	902-928 MHz: 4W eirp 400 cm (Typical) 2W erp 360 cm (Typical) 865.6-867.6 MHz: 2W erp 340 cm (Typical)
Reading Range (Rubber Mat)	902-928 MHz: 4W eirp 230 cm (Typical) 2W erp 200 cm (Typical) 865.6-867.6 MHz: 2W erp 380 cm (Typical)	902-928 MHz: 4W eirp 310 cm (Typical) 2W erp 280 cm (Typical) 865.6-867.6 MHz: 2W erp 410 cm (Typical)
Tagging	Directly sewing in hem, seam of linen items; Sewing with patch/pouch	
Estimated Lifetime	200 washing cycles or 3 years from shipping date, whichever comes first*2	
Washing Method	Laundry cleaning	
Water Extraction Pressure	60 bar	
Chemical Resistance	Standard Detergent, Softener, Bleach (Oxygen/ Chlorine*3), Alkali, Acetic/Peracetic Acid	
Autoclave Sterilization	121 °C, 15-20 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	

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

**1: Reading distance with the condition that textile and attached tag are dry*
**2: When used according to the specification, unless otherwise noted*
**3: The tag has been tested 10 times under the conditions in the JIS L 0856 Severe test*
**4: This test was conducted under Fujitsu Frontech's laboratory*

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