



RFO RTLT 0501 Low Temperature UHF RFID Tag

-196°C

DATA SHEET

Product Description

Main Features

The RFO-RTLT0501 is a miniature RFID Low temperature tag (**-196°C**) designed for cryogenic conditions, capable of withstanding liquid nitrogen temperatures. Its small size allows embedding at the bottom of frozen storage tubes, providing each sample with a unique ID for secure and efficient tracking. Batch reads can be made easily in seconds. Can be used for liquid Nitrogen, Cryogenic systems, Cryostorage and/or as Pipe Tag.

Key Features:

- > Operates in extreme low temperatures, compatible with liquid nitrogen
- > Small form factor for embedding in frozen sample tubes
- > Enables real-time sample tracking throughout the lifecycle
- > Supports automated inventory management and LIMS integration
- > Ensures chain of custody and regulatory compliance
- > Tamper Proof
- > Monitors environmental conditions for sample quality control
- > Reduces manual handling, enabling laboratory automation
- > Provides sample authentication and secure identification

Product pictures



Article no:	Standard	RFO RTLT0501
Typical Applications		
<ul style="list-style-type: none"> •Manufacturing •Security •Waste management •Logistics 	<ul style="list-style-type: none"> •Health Care •Asset management •Food •Transportation 	<ul style="list-style-type: none"> •Service Maintenance & Diagnostics •Automotive •Retail & POS •Home Automation

Contact:

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Technical Specifications		RFO RTLT0501
Operation mode	Passive (Battery less)	
Protocol	EPC Class 1 Gen2	
ISO Standard	ISO 18000-6C	
Operating Frequency	865-868MHz (EU) 902-928MHz (FCC)	
Memory	EPC: 128 Bit User: 32 Bit TID: 96 Bit	
IC Type	Impinj R6-P	
Polarization	Linear	
Read Range	Up to 0.5 m	
Environment Compatibility	Optimized on Air	
Mechanical Specifications		
Material	FR4	
Surface Materials	Industry grade epoxy resin	
Dimensions	Φ4.7 x 1.4 mm	
Weight	0.1 g	
Attachment	Embedded	
Color	Black by default	
Environmental Specifications		
Ambient Temperature	-196 °C bis +150 °C	
Certifications	CE & RoHS approved / ATEX/IECEX certified	
γ ray sterilization	adapted (Other sterilization methods are applicable)	