

NXP UCODE® 7m RFID PPS Laundry Tag

AZ-U7M-LTPPS-D20



1. Product Overview

NXP UCODE® 7m RFID PPS laundry tag can withstand more than 200 washing cycles, which is very suitable for industrial washing, uniforms management, medical clothing management, personnel inspection management and other application fields. In addition, the tag is made of high temperature resistant material, suitable for UHF frequency band, waterproof, and the surface can be laser engraved with serial number to ensure the uniqueness and traceability of the tag.

2. Product Parameters

2.1 Physical Characteristics

SKU	AZ-U7M-LTPPS-D20
Material	PPS and high temperature resistant epoxy adhesive
Dimension	Diameter 20mm, thickness 2.6mm (±0.2mm)
Weight	1.28g
Surface Color	Black
Mounting Method	Put it inside the cloth bag and sew it

Key Features

Operating Frequency	UHF 902-928MHz (or customized)
Chip Type	NXP UCODE® 7m
International Standard	ISO/IEC 18000-6C, EPC Global Gen2V2
EPC Memory	128-bit
TID Memory	96-bit, including 48-bit unique serial number
Operating Temperature	-25°C to +110°C
Washing Cycles	200 washing cycles



2.2 Technical Parameters

Operating Frequency	902-928MHz (or customized)
Communication Protocol	ISO/IEC 18000-6C, EPC Global Gen2V2
Antenna Polarization Mode	Linear Polarization
Reading Distance	Fixed Reader (4W EIRP): Over 0.4 meters Handheld Reader (30dbi power): 0.1 meter

2.3 Testing

Short-term Heat Resistance	180°C for 2 minutes
Drop Test	Passed 200 drops from 1 meter
Alcohol Test	Passed by cleaning with 95% alcohol
Gasoline Testing	Passed by cleaning with 92# gasoline
High and Low Temperature Alternation Test	-40°C to +150°C 7 times high and low temperature alternation cycle, a total of 2 consecutive days of testing passed
IP Rating	IP67
Washing Cycles	200 washing cycles

2.4 Chip Characteristics

Chip Manufacturer	NXP®
Chip Type	UCODE® 7m
User Memory	32-bit
TID Memory	96 bit, including 48-bit unique serial number
EPC Memory	128-bit
Kill Password	32-bit
Read Sensitivity	-21 dBm
Write Sensitivity	-16 dBm
Encoding Speed	16 bits per millisecond
Block Write (32-bit)	Yes
Permalock	One-time lock
Write Endurance	100,000 times
Data Retention Time	20 years

2.5 Additional Information

Operating Environment	-25°C to +110°C, 5% to 95%RH
Storage Environment	+18°C to +28°C, 40% to 60%RH (recommended)
Application	Industrial washing uniforms management medical clothing management and personnel inspection management, etc.



3. Size and Specification Drawing

