

NXP UCODE®8

UHF RFID PCB On-Metal Tag

AZT-U8-PCB-D5T2



Key Features

Operating Frequency
(EU)865-868 MHz

Chip Type
NXP UCODE®8

International Standard
ISO/IEC 18000-6C, EPC Global Gen 2v2

EPC Memory
128 bits

IP Rating
IP68

Max. Read Range
0.9m on metal

1. Product Overview

Constructed from robust, tear-resistant, lightweight, moisture-proof, and heat-resistant FR4 PCB, this NXP UCODE®8 UHF RFID on-metal tag is perfect for metal surfaces in demanding environments, providing a read range of up to 1 meter when affixed to metal. Its compact design and versatile mounting options—either embedded or adhesive—facilitate straightforward installation on a variety of metal surfaces. With an IP68 rating for dust and water resistance, it is well-suited for outdoor applications. This UHF RFID on-metal tag is specifically engineered for asset tracking, warehouse management, logistics management, and equipment tracking in tough industrial settings.

2. Product Parameters

2.1 Physical Characteristics

SKU	AZT-U8-PCB-D5T2
Material	FR4(PCB)
Tag Dimension	Diameter: 5mm; Thickness: ≤2.2mm with adhesive
Net Weight	0.5g
Tag Color	Black(Red, Blue, Green, White)
IP Rating	IP68
Mounting Methods	Embed, Adhesive

2.2 Technical Parameters

Operating Frequency	(EU)865-868 MHz
Communication Protocol	ISO/IEC 18000-6C, EPC Global Gen 2v2
Applicable Surface	Metal Surfaces
Read Range (Fix Reader)	0.9m-(EU)865-868 MHz, on metal
Read Range (Handheld Reader)	0.55m-(EU)865-868 MHz, on metal



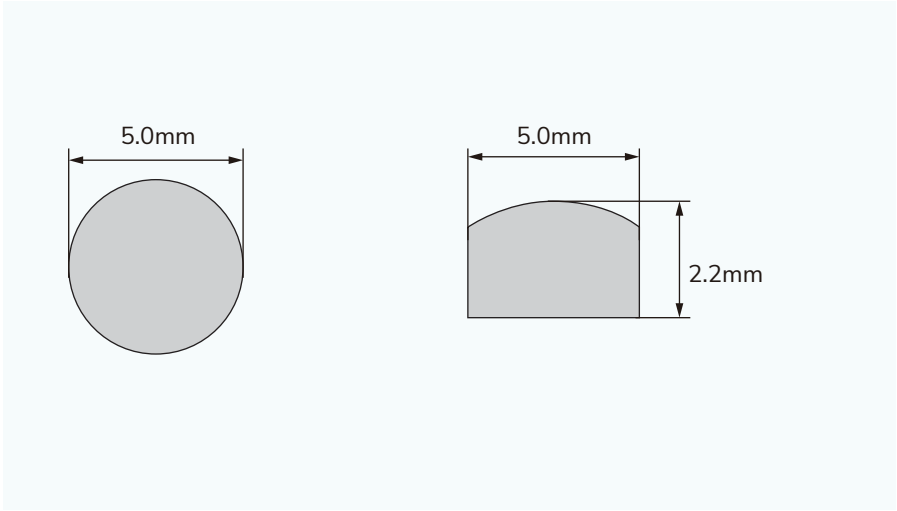
2.3 Chip Characteristics

Chip Manufacturer	NXP®
Chip Type	UCODE®8
Write Endurance	100,000 times
Data Retention	50 years
User Memory	0 bit
EPC Memory	128 bits
TID Memory	96 bits
Self Adjust	Support
EPC Pre-Serialization	Support
(Perma) LOCK™	Support
Kill Command	Support
EAS Tag Alternative Function	Support
Tag Performance Optimization	Support
Autocorrect Memory Protection	Support
Authenticity Certification	Support

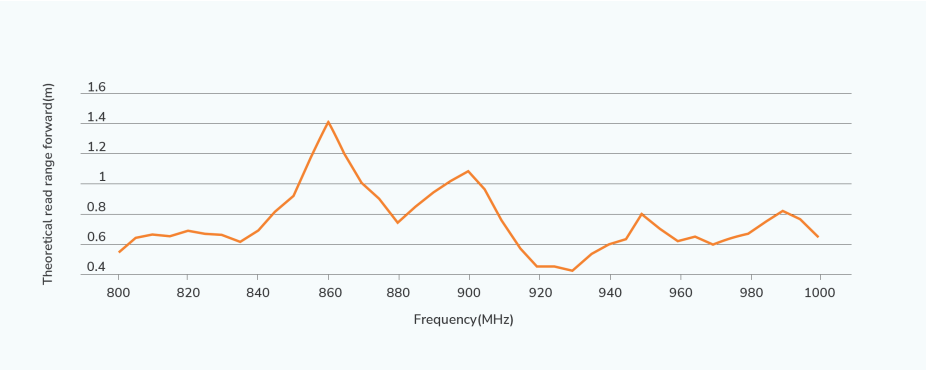
2.4 Additional Information

Operating Environment	-40°C~+100°C
Storage Environment	+18°C~+28°C
Withstands Environment	Asset tracking, warehouse management, logistics management and equipment tracking in challenging industrial conditions.

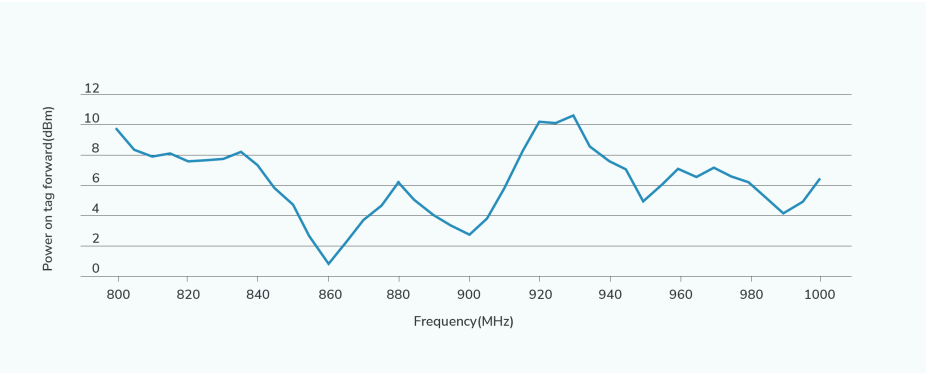
3. Dimensions



4.1 Reading range under different frequency



4.2 Tag power under different frequency



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