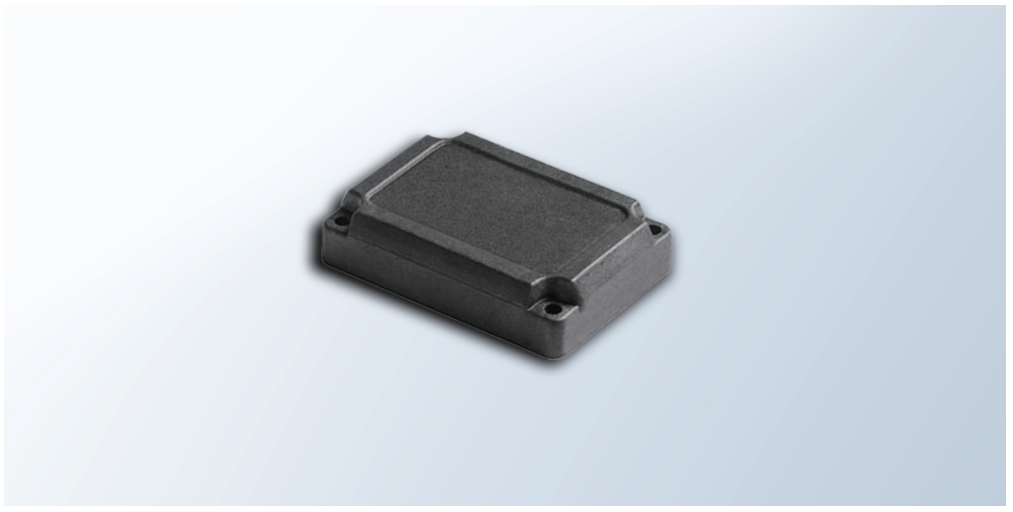
AZ-U8-PEEK-4129

NXP UCODE® 8 Chemical Resistant RFID On-Metal Tag



Key Features

Frequency Band
865-868MHz (EU) / 902-928MHz (US)

Chip
NXP UCODE® 8

International Standard
EPC Class1 Gen2, ISO18000-6C

EPC memory
128 Bits

IP Rating
IP68, IP69K

High-Temperature Resistant
150 °C

Chemical Resistant
PH 0-14

Max. Read Range (2W ERP FCC)
6.5m on metal

Max. Read Range (2W ERP ETSI)
6m on metal

1. Product Overview

This chemical resistant RFID tag is suitable for use in corrosive work environments. It can adapt to pH values from 0 to 14 and can be used in chemical industry scenarios such as medical devices, automotive industry and electronic fields.

2. Product Parameters

2.1 Physical Characteristics

SKU	AZ-U8-PEEK-4129
Material	PEEK
Tag Size	41x29 mm (Hole: Diameter 2.3 mm x4)
Tag Thickness	11.8 mm
Tag Weight	19 g
Tag Color	Black
IP Rating	IP68, IP69K
Mounting Methods	Screw- Socket head cap screw (M2)

2.2 Technical Parameters

Operating Frequency	865-868MHz (EU) / 902-928MHz (US)
Communication Protocol	EPC Class1 Gen2, ISO18000-6C
Applicable Surface	Metal Surfaces
Read Range (Fix Reader)	865-868MHz (EU): 6m on metal 902-928MHz (US): 6.5m on metal
Read Range (Handheld Reader)	865-868MHz (EU): 3m on metal 902-928MHz (US): 3.5m on metal

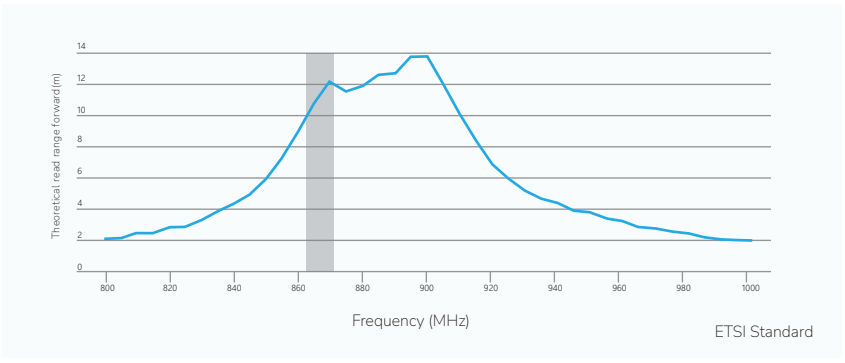
2.3 Chip Characteristics

Chip Manufacturer	NXP®
Chip Family	NXP UCODE®8
Write Cycles [typical cycles]	100 000
Data Retention [years]	Up to 50
EPC Memory	128 Bits
User Memory	0 Bits
TID Memory	96 Bits
(Perma) LOCK™	Support
Kill Command	Support
EAS Tag Alternative Function	Support
Tag Performance Optimization	Support
Autocorrect Memory Protection	Support
Authenticity Certification	Support

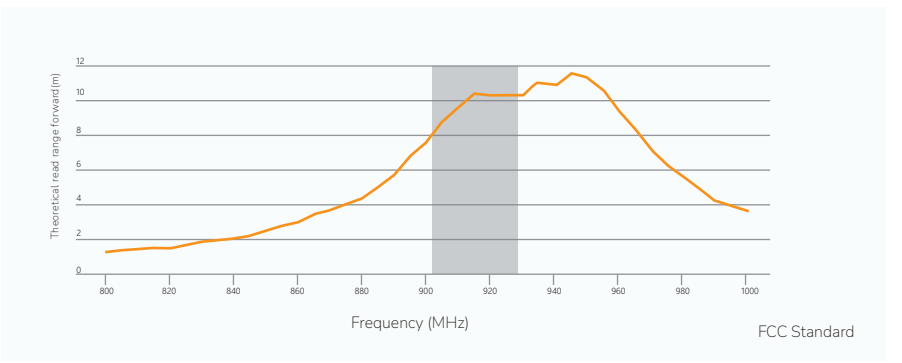
2.4 Additional Information

Storage Environment	Temperature -60°C to +250°C
Operating Environment	Temperature -40°C to +150°C
Chemical Resistant	PH 0 to PH 14, and all other liquid that PEEK can handle with
Testing Limits	1. Heating in oven at 250 °C for 4 hours; 2. Soaking in water 2 meters depth for 8 hours immediately; 3. Cleaning with ultrasonic at 70 °C for 90 minutes; 4. 200 Kpa pressure test for 2 hours under the high temperature and high humidity; After running 30 circles the above steps, the tags with no damage.
Compression Strength	150 Mpa

Reading range under different frequency

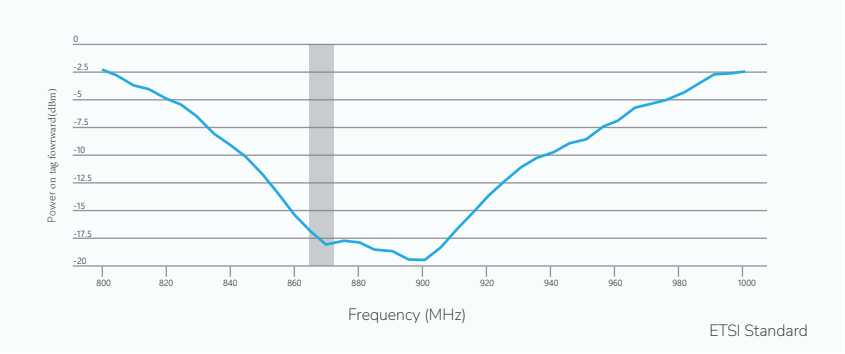


ETSI Standard

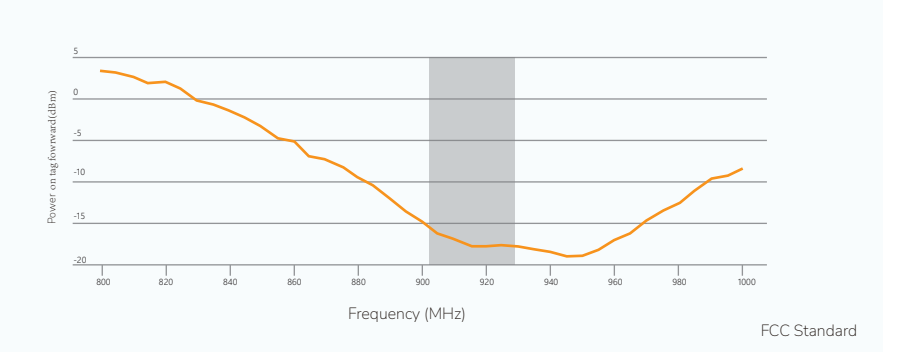


FCC Standard

Tag power under different frequency

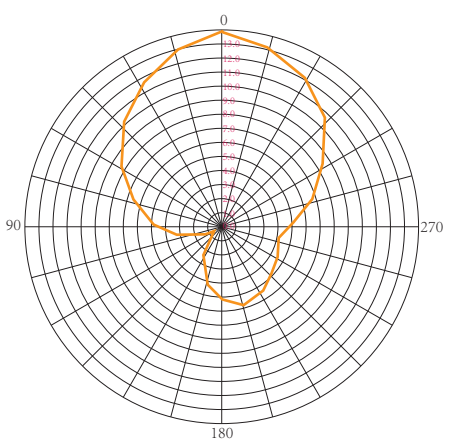


ETSI Standard

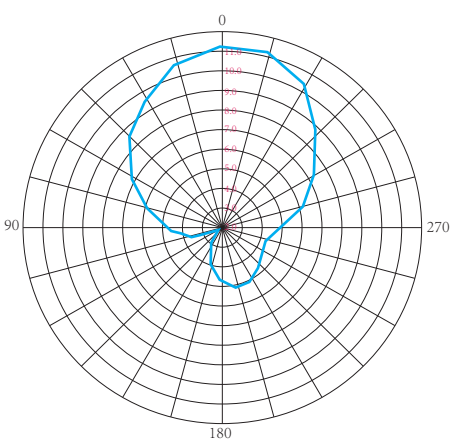


FCC Standard

Radiation pattern under different frequency (on-metal)



ETSI Standard



FCC Standard

https://www.rfidtag.com

E-mail : sales@rfidtag.com Phone Number: +86-131-3958-0585

Singapore Office : 10 Science Park Road #03-17A, The Alpha, Singapore Science Park, Singapore 117684

Shenzhen Office : 33-408, Qianhai SZ-HK Fund Town, Nanshan, Shenzhen, China 518052

Shenzhen Factory : Q5, XingDao Industrial Park, LongGang, Bantian, Shenzhen China 518129