



UT-320 UWB Tag



brief introduction

UT-320 is a card-type positioning tag designed by Nanjing Wexu Communication Technology Co., Ltd. based on ultra-broadband (UWB) technology. It supports high-precision positioning of TDoA, ToF and AoA, and is equipped with barometer and three-axis accelerometer to assist positioning.

The tag supports active SOS alarm, low power alarm, super long time stationary alarm, issuing alarm to support vibration and buzzer prompt.

tags support badge type or armband type wear, support RFID access control function. Product protection grade IP67, explosion-proof grade support Ex ib IIC T4 Gb / Ex ib IIIC T80°C Db, widely used in industry, power energy, construction site and other fields.

leading feature

- **Based on the IEEE 802.15.4z UWB**

-UWB nanosecond level pulse signal to achieve centimeter-level positioning accuracy

- **Suitable for a wide range of areas**

-High-band (CH 5 / CH 9) design to support global application

- **Ultra low power consumption**

-Intelligent dormancy, ultra-low power design

- **Light and convenient**

-Small size design, easy to carry and move

- **levels of protection**

-IP67 protection level, better environmental adaptability

- **SOS key**

-Active alarm, a one-key call for help

- **Vibration, bee sound**

-The platform issues alarm, vibration beep multi-mode alarm reminder

- **RFID**

-ISO 14443A 13.56MHz IC card, support access control management and other functions

product picture



UT-320 personnel card tag

size of product

project	description	
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summary

product model	UT-320	
Related specifications	IEEE 802.15.4z	
USB	4 pin magnetic suction charging	
charging voltage	DC 5 V	
Instantaneous power consumption	< 1 W	
The standby time is ₁	> 1 Month	
refresh rate	0.1-20 Hz (adjustable)	
Light show state	In charging	Red often bright
	Charge full	Green is always bright
	Low battery level (working)	Red flashing
	Normal charge (working)	Green flashing

RF Specification (UWB)

Work band	frequency	6.24 GHz~6.73 GHz (channel 5)
		7.74 GHz~8.23 GHz (channel 9)

Physical rate	850 Kbps
	6.8 Mbps
Output power (25°C)	-41 dBm / MHz (typical value), with adjustable power
channel width	≥500 MHz

RF Specification (RFID) (optional)

standard agreement	ISO 14443A
carrier frequency	13.56 MHz
transmission speed	106 Kbps

Software specifications

UWB work pattern	TDoA/ T oF/ AoA
dormancy	Intelligent dormancy
Alarm upload	SOS active alarm
	Low power alarm
	Fall alarm
	Very long time stationary alarm
Warning issued	Vibration (prompt, alarm, strong alarm)
	Buzzer (prompt, alarm, strong alarm)
upgrade	UART, OTA
configure	The UART interface, and the CLI configuration

Physical specifications

Size (mm)	57mm×87.5mm×7mm
Weight (gram)	36

environmental specification

temperature	working temperature	-20℃~60℃
	Storage temperature ²	-30℃~70℃
humidity	Working humidity	5%~95% without condensation
waterproof and dustproof	IP67	
Fire retardant grade	UL94 V-0	
RoHs	compatible	
closeRegularity	EMC	GB / T 17626-2 IEC 61000-4 grade 3 Class A
	SRRC	The Ministry of Industry and Information Technology has no [2008] 354 standard

1. Standby time: test data of the typical working model of Nanjing Woxu Laboratory
(Typical working model: UWB working mode TOF, working frequency 1Hz, tag working 10 hours daily, dormant 14 hours long)

Products containing rechargeable batteries need to charge about 80% of the power every six months to continue storage, or charge and maintenance for 50% of the expected time of the original full charge.

2. Storage temperature: The product is stored in this temperature range, and the positioning tag will not be damaged, but the recommended temperature is 0~45℃ for long battery life storage.

Delivery content

name	Specification brief	quantity	number of order
UT-320	Personnel card tag	1	AA01UT32000 0

Option (not included in the delivery scope, please contact Warbusiness in advance)

name	Specification brief	quantity	number of order
cutting ferrule	105 * 90mm, transparent PE	1	AD1201010500
RFID tagging	Mark, green with RFID, medium card	1	AD1001000100
Magnetic suction charging line	4pin, line length of 600mm, line diameter of 2.9mm	1	AD1302000100

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