

UT-241-E Datasheet

1 Introduction

UT-224-E is a card type positioning tag developed by Woxu wireless Co., Ltd. based on UWB technology. It is equipped with BLE, six-axis sensors, etc., and supports TDoA and ToF positioning. It can be worn as an employee's work badge, and is widely used in personnel positioning in various fields.

UT-241-E is equipped with 1.54inch high-resolution electronic ink screen, close to 180° viewing angle, support information display, can be used to send prompt messages ;

The product is equipped with RFID (ISO 14443a) which supports the access control and other functions.;

The product protection grade reaches IP65, meeting the needs of various industrial environments.

2 Main feature

- IEEE 802.15.4a UWB wireless
- High resolution electronic ink screen (E-ink)
- Step counter, time display, battery display, etc.
- BLE 5.0
- SOS button
- IP65 Protection level
- RFID (optional)

3 Product picture



4 Specification

Item	Description
Overview	
Model	UT-241-E
Specification	IEEE 802.15.4a
	IEEE 802.15.1
Charging interface	4pin Magnetic charging
Charging voltage	DC 5V
Instantaneous power	< 1W
Standby time	> 1 month
Refresh rate	0.1~20Hz (adjustable)

LED	In charging	Blue on
	Fully charged	Green on
	Low battery (operate)	Red blink
	Normal battery (operate)	Green blink

RF Spec. (UWB)

Working range	3.25GHz~3.74GHz (channel1)
	3.77GHz~4.24GHz (channel2)
	6.24GHz~6.74GHz (channel5)
Physical rate	110 Kbps
	850 Kbps
	6.8 Mbps
Output power(25°C)	-41.3dBm/MHz (typical), -21dBm/MHz (maximum)
Channel bandwidth	500MHz
Antenna gain	0.5 dBi

RF Spec. (BLE)

Working range	2.4GHz~2.4835GHz
Physical rate	2Mbps
Output power (25°C)	4dBm (maximum)
Antenna gain	1.39 dBi

Electronic ink screen (E-ink)

Size	1.54inch
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Color	Black and white
Resolution	200×200dpi
Refresh	Support partial refresh
Content	Text, time, step count, battery
Language	Simplified Chinese, Traditional Chinese, English, Japanese

Software Spec.

Working mode	TDoA
	ToF
Sleep mode	Smart mode
Alarm load	SOS button
	Low battery alarm
	Inactivity for long period
Alarm issuance	E-ink screen display
	Vibration (prompt、alarm、strong alarm)
	Buzzer (prompt、alarm、strong alarm)
Upgrade	UART, OTA (UWB o BLE)
Configuration	UART interface, CLI configuration

Physical Spec.

Size (mm)	57×87.5×7
Weight (gram)	38

Environmental Spec.

Temperature	Operating : -20°C~60°C (operate the screen requiring 0°C~40°C)
	storage: -25°C~60°C
Humidity	Operating : 0%~90% non-condensing
RoHs	Compatible

5 Delivery content

Model	Specification	Quantity	Order number
UT-241- E	Card type positioning tag	1	AA01UT241E00
Magnetic charging line	4pin magnetic charging line , 800mm	1	/

Accessory (not including in the scope delivery, if you have any requirements, please contact WOXU in advance)

Model	Specification	Order number
Adapter	5V, 1A adapter	AD0203100001