

WE-T311 Material Location Label

brief introduction

The WE-T311 is a material tracking tag developed by Hainan Shidian Technology Co., Ltd. using ultra-wideband (UWB) technology, which, when paired with Shidian's positioning system, enables centimeter-level accuracy. Featuring an ultra-low-power design, the tag delivers years of battery life on a single charge, significantly extending maintenance intervals while reducing operational costs.

Compact and lightweight design with multiple mounting options including adhesive backing, screws, and zip ties. Featuring dual IP43/IP68 protection ratings, it adapts to diverse environments and is widely used for material location management in industrial manufacturing, warehousing logistics, healthcare facilities, elderly care, and smart office applications.

leading feature

high accuracy positioning

Ultra-wideband nanosecond pulse signal with centimeter-level positioning accuracy

The applicable area is wide.

High-band (CH5/CH9) design, supporting global applications

ultra low power

Smart sleep mode and ultra-low power consumption design, with a single battery life of up to 5 years

Light and easy

Compact design with multiple installation options

levels of protection

Optional IP68 version for better environmental adaptability

Product picture



project	description	
summary		
product model	WE-T311	
Related regulations	IEEE 802.15.4z	
instantaneous power dissipation	No more than 0.2W	
Battery life	5 years	
supply electricity	Disposable lithium battery	
way to install	backing tape/screw/tying tape	
Status notification	Green Flash	regular work
	Red Flash	Low battery
UWB radio frequency specifications		
service frequency	6.24GHz~6.74GHz （channel 5）	
	7.74GHz~8.24GHz （channel 9）	
physical rate	6.8 Mbps	
Output power (25℃)	-41.3dBm/MHz (typical value)	
operating bandwidth	≥500MHz	
antenna gain	0.5dBi	
Software specifications		
work pattern	TOF/TDOA	
localization frequency	0.1~20Hz (system setting)	
dormancy	Smart hibernation	

Alarm upload	Low battery alert	
upgrade	OTA	
configure	OTA	
physical specification		
Size (mm LWH)	60×25.5×11	
Weight (g)	15.3	
environmental specification		
temperature	working temperature	-20℃~60℃
	storage temperature	-30℃~70℃
humidity	working humidity	5%~95% no coagulation
levels of protection	IP43/IP68	
flame retardant rating	UL94 V-2	
RoHs	compatible	

Explain

- *1. Battery life: Typical working model test data from Shidian Technology Laboratory
(Typical operating model: UWB mode TDOA, operating frequency 1Hz. The tag has 1 hour of daily active time and 23 hours of inactivity time)
- *2. Storage temperature: The product can be stored within this temperature range without damage to the positioning label and will function normally. However, for optimal battery longevity, the recommended storage temperature is 0–45°C.
- *3. Protection rating: The default IP43 rating provides splash-proof protection in all directions, with optional IP68 rating available.

Delivery content

name	Brief specification	quantity	number of order
WE-T311	Locate item labels (IP43)	1	AA01UT311000
WE-T311	Locate item labels (IP68)	1	AA01UT311001
Installation Kit	screw/backing	1	