

SANMAX[®]

INSTRUCTION MANUAL



TW-5-P1
TRACKER WHEEL

QUZHOU SANMAX HARDWARE TECHNOLOGY CO.,LTD

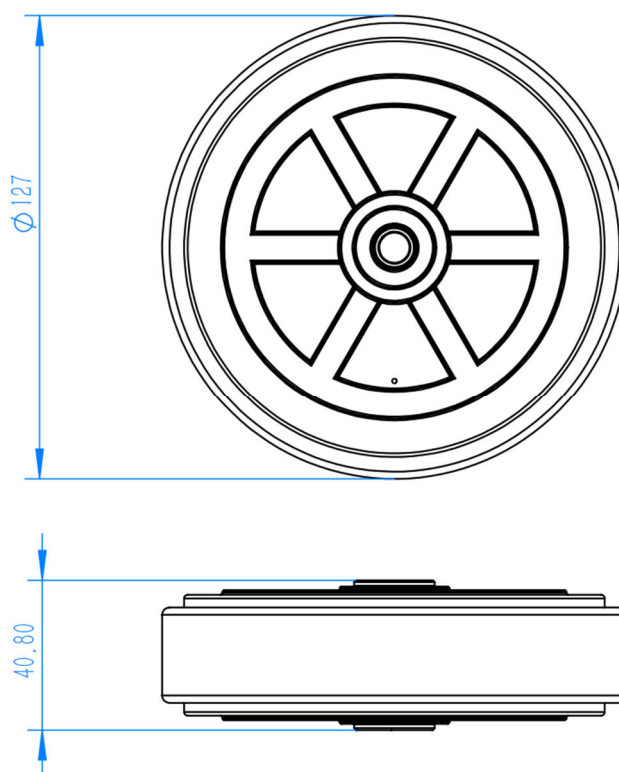
1.Product Definition

TW-5-P1 tracker wheel is a wireless asset monitoring sensor developed based on standard LoRaWAN protocol. The product utilizes high-precision GNSS positioning technology and low-power Bluetooth scanning positioning, enabling rapid and accurate capture of device location information in both indoor and outdoor environments. When the monitored device is used indoors, the locator automatically starts scanning Bluetooth beacons, and when the device is moved outdoors, it automatically activates GPS+BeiDou joint positioning to quickly obtain accurate positioning data, to achieve full-scenario positioning coverage. The tracker is with small size, low power consumption, and easy installation.

2.Functions and Features

- Using standard LoRaWAN protocol
- Full-scenario coverage, intelligent switching between GPS+Bluetooth dual positioning engines
- Supports scheduled or periodic reporting modes to meet various application scenario positioning needs
- Supports Bluetooth wireless configuration of device parameters
- Built-in high-capacity lithium-thionyl chloride battery

3.Product Dimensions



4. General Specifications

Hardware Parameters	GNSS Sensor	The positioning accuracy is 5m, and it supports dual-mode positioning of GPS and Beidou
	Power on/off	Support physical buttons for power on/off control
	GPS Antenna	1575.42MHZ, Bandwidth ± 2 MHZ, Impedance: 50 ohms, Gain 2dbi, RHCP
	LoRa Antenna	Built-in LoRa Antenna
Wireless performance parameters	working frequency	CN470\AS923\AU915\EU868\KR920\US915 Multiple frequency bands are selectable
	Network Access Mode	OTAA or ABP optional
	Working Mode	CLASS A
	Wireless configuration	Support Bluetooth wireless configuration
	LoRa Maximum transmission power	19dbm
	LoRa receive sensitivity	-141dBm

	Bluetooth transmission power	0dBm
	Bluetooth receiving sensitivity	-96dBm
Electrical characteristics	battery capacity	4000mAh
	operating temperature	-20°C ~ 60°C
	operating humidity	10% ~ 90%
DC characteristics	power supply mode	Built-in lithium-ion battery
	supply voltage	DC3.6V
	dormant state	$\leq 40\mu\text{A}$
	Sending Status	150mA
physical parameter	level of protection	
	Size	Diameter:127mm thickness: 40.80mm

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



QUZHOU SANMAX HARDWARE TECHNOLOGY CO.,LTD

Add : Room30, No.2 Juhai Road, Qujiang District, Quzhou City, Zhejiang Province, China

Tel : +86-570-3689738

Fax : +86-570-3689739

ZIP : 324000

Web site : <http://www.san-max.com>

E-mail : tony@san-max.cn

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