

WE-HCBB59

BLE Beacon Ear Tag

Product Specifications



OEM/ODM



100 m broadcast
transmission
distance



Step-Counting



More Accurate on
Temperature



3yrs Lifetime

Overview

The **WE-HCBB59** is a Bluetooth ear tag based on a low-power Bluetooth chip, powered by a lithium manganese button battery, with a theoretical battery life of up to 2.38 years (at an ambient temperature of 25°C, acceleration updates every 60 seconds, temperature updates every 60 seconds, and broadcasts every 10 seconds).

The **WE-HCBB59** can broadcast information such as the Bluetooth name (maximum four characters), Bluetooth MAC address, broadcast interval, transmission power, battery level, temperature, and step count. All broadcast content can be customized according to customer needs.

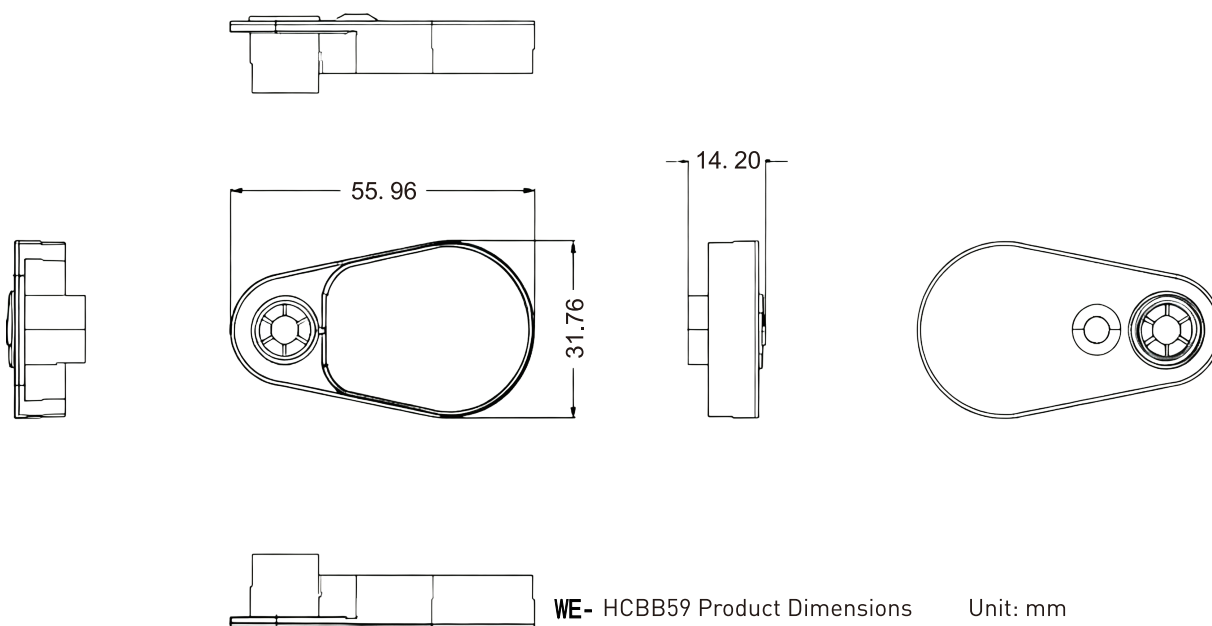
The broadcast distance is up to 100 meters (open field line-of-sight). The Bluetooth ear tag can be attached to the ears of cows, sheep, and pigs using an ear stud.

The Bluetooth ear tag is used for the management of cows, sheep, and pigs, and can be used in conjunction with Kunlun Smart Connect's Bluetooth gateway to count animals, collect ear surface temperature, and track step data.

Images



WE- HCBB59 Product Images



WE- HCBB59 Product Dimensions

Unit: mm

Features

- ▶ Ultra-low power consumption, theoretical battery life up to 2.35 years (accelerometer updates every 60 seconds, temperature updates every 60 seconds, broadcast every 10 seconds, ambient temperature 25°C);
- ▶ Broadcast distance up to 100 meters (open field of view);
- ▶ Ear tag configuration parameters need to be confirmed and modified with the manufacturer before shipment;
- ▶ Supports Bluetooth BLE 4.2 protocols;
- ▶ Can measure the surface temperature of cattle, sheep, and pig ears;
- ▶ Can measure the number of steps in cattle, sheep, and pigs;
- ▶ Supports IP68 waterproof rating;
- ▶ RoHS certified;
- ▶ Complies with CE, FCC, and SRRC certifications;

Product Features

Basic specifications	
Product Model	WE-HCBB59
Product size (diameter*height)	55.96*31.76*14.2mm
Product weight	12.36 g (ear tag including battery) , 1.27 g (ear stud)
Shell material/color	PP / yellow (default)
Waterproof grade	IP68
Installation	Use ear studs to fix ear tags on the ears of cattle, sheep and pigs
Battery Model	Button lithium manganese battery CR2032
Battery voltage	3.0 V
Battery capacity	225 mAh
Is the battery replaceable?	Can't
Configure the app	Should be configed by HoneyComm Before delivery.

Technical Specifications

Bluetooth version	BLE4.2
Broadcast data format	iBeacon or customized according to customer needs
Frequency range	2400MHz~2483.5MHz
Transmit power	-20 dBm ~+ 4 dBm (default 0 dBm)
Broadcast interval	10s (default) , can be adjusted according to customer needs
Receive sensitivity	-9 5 dBm
Broadcast distance	100 meters (open viewing distance)
Temperature measurement accuracy	±0.1°C@+28°C to +43°C ±0.5°C@-10°C to +60°C
Pedometer	support
Average current	10.55uA (acceleration updated every 60s, temperature updated every 60s, broadcast once every 10s)
Theoretical battery life	2.38 years (acceleration updated every 60 seconds, temperature updated every 60 seconds, broadcast every 10 seconds , ambient temperature 25°C)*
Operating temperature	-40°C~85°C
Storage temperature	-40°C~85°C
Operating humidity	10%~90% non-condensing
Storage humidity	5%~90% non-condensing

※Battery life is affected by factors such as ambient temperature and battery self-discharge.
 Actual battery life is generally approximately 0.7 times the theoretical life.
 Please evaluate battery life based on your actual usage environment.

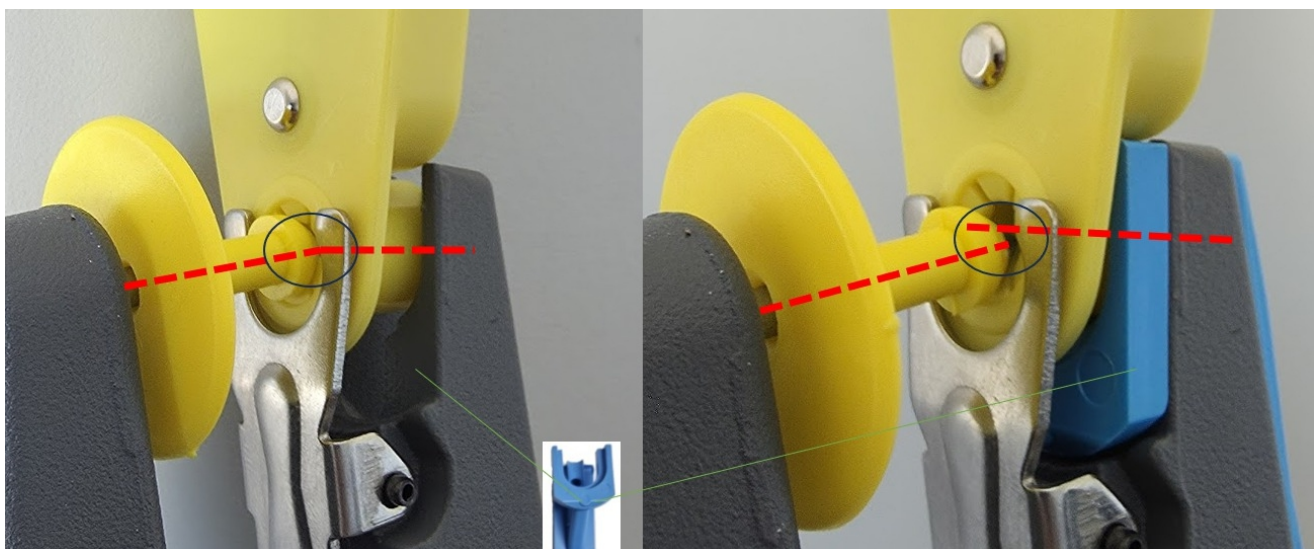
Operating Current

Description	Average current (uA)	Theoretical work duration (years)	30% discount on working hours (per year)
With acceleration and temperature/humidity	10.7	2.35	1.64
With acceleration but without temperature and humidity	10.4	2.41	1.69
With temperature and humidity but without acceleration	7.03	3.57	2.5
No acceleration, no temperature or humidity	6.36	3.95	2.76

Default Protocol

offset	Length	Type	Data	Details
0	1	Data Length	2	Broadcast frame 1 field length
1	1	Type of ADV Flag	0x01	/
2	1	Flag Data	0x06	/
3	1	Data Length	twenty one	Broadcast frame 2 field length
4	1	Type of Service Data	0x16	Broadcast frame 1 type: manufacturer data
5	2	Service UUID	0x4CAB	(little-endian) service data UUID: 0xAB4C
7	1	Version Number	0x03	Device firmware version identifier
8	1	Battery Voltage	30	Unit 1 is 0.1v, 30 is 3.0v
9	1	Broadcast Interval	8	Broadcast interval, 8*100 ms
10	1	Radio TX Power	0x00	Device wireless transmission power
11	6	MAC address	0xF190785634F2	Device MAC address: F190785634F2
17	1	Sensor State		Valid bits: bit[0] current motion status bit[1] Hall sensor status Other bits reserved
18	1	The Integer Part of Temperature	28	Integer part of temperature, signed
19	1	The Fractional Part of Temperature		00-99 means 0.00 to 0.99
20	1	Reserved	1	Reserved
21	4	Step Counter	1	Pedometer value
25	1	Data Length	-	Broadcast frame 3 field length
26	1	Type of Device	0x09	Broadcast frame 3 type: Device name
27	≤4	NameDevice Name	"myDv"	Maximum 4 characters

How to Install Our Eartag Onto Livestock Ear Correctly?



Note: Pls remember to use a tool which have Gasket (Blue Part) which can protect our eartag properly.