

Shenzhen Xingmai Electronics Co., Ltd

Product datasheet

Product GPS positioning
Name: terminal
Product C011
Model: _____
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1. Basic introduction of the product

1.1 Product Introduction

C011 is a 4G full Netcom pet positioning terminal carefully built for animal husbandry and large pets, integrating 4G full Netcom wireless communication technology and GPS/BDS satellite navigation and positioning technology, the terminal adopts industrial-grade highly integrated fully built-in antenna design, the device has a built-in 3-axis sensor, and the intelligent power-saving wake-up work. It has the functions of real-time positioning, light pet hunting, sound pet hunting, roll call positioning and so on. Five working modes can be set to meet various application scenarios of customers, and users can send instructions to switch working modes. With the global positioning service platform, the location of the device can be queried anytime and anywhere.

1.2 Application fields

Animal husbandry, large pets, vehicles, etc.

1.3 Product Pictures



1.4 Introduction to the use of the product

1.4.1 SIM card installation

Unscrew the SIM card cover with a screwdriver, align the missing corner of the SIM card with the missing corner of the card holder, and install it with the chip side down

1.4.2 Indicator Description

Red Light - Charging indicator

The state of the lamp	Meaning
Solid on	Charging
Not bright	Filled

Yellow Light - GSM indicator

The state of the lamp	Meaning
Flash 1 time in 2 seconds	GSM initialization
Solid on	GSM communication is normal
Not bright	GSM hibernation/shutdown

Blue light - GPS indicator

The state of the lamp	Meaning
Flash 1 time in 2 seconds	Satellite signal searching
Solid on	GPS/BDS has been located
Not bright	GPS/BDS hibernation

1.4.3 Working logic

(1) Status Description:

Powered on and off status: The device is turned on and off by pressing the button (press once to turn it on, press and hold for three seconds to turn it off), and no data will be uploaded after the shutdown

Working status: The working light of the equipment is on, and the GPRS and GPS are in working condition.

Standby state: GPRS of the device works (the platform remains online, and instructions and text messages can be issued online), GPS does not work.

(2) Description of working mode:

10 seconds positioning: the device is in normal mode by default, and the position is updated once in 10S;

5-minute positioning: The device is in standby mode by default, and the position is updated every 5 minutes.

30-minute positioning: The device is in standby mode by default, and the position is updated every 30 minutes.

1-hour positioning: The device is in standby mode by default, and the position is updated every 1 hour.

12-hour positioning: The device is in standby mode by default, and the position is updated every 24 hours.

Low power mode: When the device is in normal mode (positioning interval is less than 2 minutes), the battery is less than 20%, and the position is updated once every 2 minutes.

2. Features:

- GPS+BDS+AGPS+LBS multiple positioning;
- Support the electronic fence function, the user delineates the virtual electronic fence through the platform/APP, and the platform can identify and issue an alarm when the equipment enters and exits the fence;
- When an alarm occurs, it can send an alarm SMS/phone call to the guardian number, and the alarm is uploaded to the platform at the same time;
- The terminal adopts industrial-grade high-stability GPRS module from well-known manufacturers, built-in GSM high-sensitivity antenna, supports TCP/IP data transmission, and supports domain name/IP address connection to the server;
- Built-in large-capacity memory chip, support offline data storage, blind area data supplement; when the pet is in a place where the wireless signal is weak or the interference is serious, the pet walking data is temporarily stored in the FLASH, when the wireless signal returns to normal, the data can be supplemented, so that the data is not missed;
- Built-in 3-axis acceleration sensor, fusion of accurate acceleration algorithm, real-time acquisition of pet's current posture and other situation judgment;
- High-sensitivity GPS/BDS dual-satellite positioning module, anti-interference ceramic antenna, to achieve more stable satellite search signal, support AGPS fast positioning tracking, synchronous timing;
- Support online remote upgrade and remote configuration of product parameters;
- The historical track platform is retained for 180 days.

3. Product parameters

	The name of the feature	Yes	not	Description of the project's functionality	
Electrical characteristics	Power supply mode	●		Battery-powered	
	Operating voltage range	●		DC 3.4V - 4.5V	
	Working state voltage/current	●		4V/59.8mA average	
	Standby voltage/current	●		4V/4.8mA average	
	Built-in battery capacity	●		4000 mAh (3.7V polymer battery)	
Environmental characteristics	Operating temperature range	●		-20℃ - 75℃	
	Storage temperature range	●		-30℃ - 80℃	
	Operating humidity range	●		10%-85% RH non condensing	
Communication characteristics	Communication module brand/chip model	●		SIMCOM A7670SA-LASE	
	Communication frequency bands	●		LTE/4G	LTE-FDD:B1/B2/B3/B4/B5/B7/B8/B28/B66
				GSM/2G	850/900/1800/1900MHz
	SIM card	●		Nona SIM card	
	Communication antennas	●		Built-in FPC antenna	
GPS/BD positioning features	Locate the module brand /chip model	●		AT6558R	
	Targeting method	●		BDS/GPS/AGPS/LBS	
	Cold start time	●		Avg. 32 seconds	
	Hot start time	●		Avg. 1 second	
	Tracking sensitivity	●		-162 dBm	
	Locate the antenna	●		Built-in antenna	
	Antenna specifications	●		20mm×20mm×4mm	
	GPS bands	●		L1: 1575.42±1.023MHz	
	Beidou frequency band	●		B1: 1561.098±2.046MHz	
	Number of satellite channels	●		64	
	Positioning accuracy	●		<2m(1σ)	
	Timing accuracy	●		<30ns (1σ)	
	Speed measurement accuracy	●		<0.1m/s (1σ)	
Peripheral	Magnetic charging port + serial port	●		1 way	
	horn	●		1 way	
	LED lights	●		Charging light (red) + GPS (yellow) + 4G (blue) + pet light (white)	
Form factor	Dimensions of the main unit (length, width and height)	●		82mm*49mm*38mm	
	Housing material	●		Nylon plastic	
	IP rating	●		IP67	
	Weight of the main unit	●		143 g	