

F209规格书/Datasheet

GPS追踪器/GPS Tracker

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目录/Contents

1 产品简介/Product profile	4
2 应用/Applications	4
3 特性/Features	5
4 性能参数/ performance parameter	6
5 产品使用介绍/Introduction to Product Usage	8
5.1 SIM 卡安装方式/SIM card installation mode	8
5.2 指示灯说明/Indicator light description	8
5.3 工作逻辑/ Work logic	8
6 联系信息/ Contact information	10

1 产品简介/Product profile

F209 是针对宠物精心打造的一款 4G 全网通宠物定位终端，融合了 4G 全网通无线通信技术以及 GPS/BDS 卫星导航定位技术，终端采用工业级高集成度全内置天线设计，设备内置 3 轴传感器，智能省电唤醒工作。具有实时定位，震动报警、灯光寻宠、声音寻宠、点名定位等功能。可设定四种模式工作模式，满足客户各种应用场景，用户可发送指令切换工作模式。搭配全球定位服务平台，随时随地都可查询到设备位置。

F209 is a 4G full netcom pet positioning terminal carefully built for pets, which integrates 4G full netcom wireless communication technology and GPS / BDS satellite navigation and positioning technology. The terminal adopts industrial high integrated full built-in antenna design, built-in 3-axis sensor, intelligent power saving wake up work. With real-time positioning, vibration alarm, light pet search, sound pet search, roll call positioning and other functions. Four modes of working modes can be set to meet various application scenarios of customers, and users can send instructions to switch the working mode. With the global positioning service platform, the location of devices can be found anytime and anywhere.

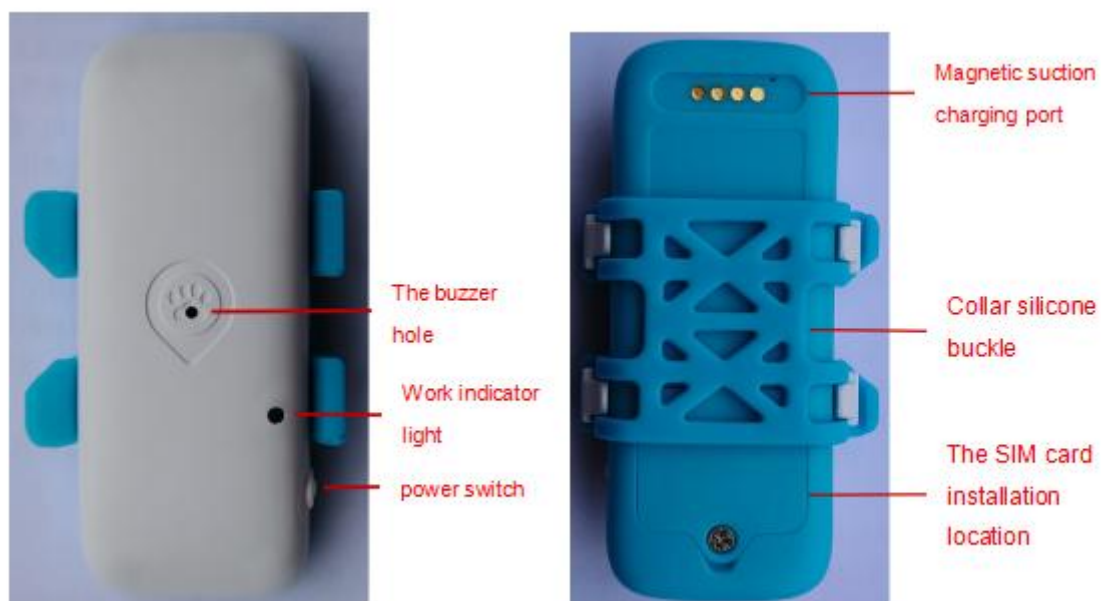


图 1: F209 产品图/Product diagram

2 应用/Applications

- ◆ 人员定位/Personnel positioning
- ◆ 宠物定位/Pet positioning
- ◆ 客运车辆等/Passenger vehicles, etc

3 特性/Features

- ◆ GPS+BDS+AGPS+LBS 多重定位;/GPS + BDS + AGPS + LBS multiple localization;
- ◆ 支持电子围栏功能，用户通过平台/APP 划定虚拟电子围栏，当设备进出围栏时均可被平台识别并发出警报； /Support the electronic fence function, users can delimit the virtual electronic fence through the platform / APP, when the device can be recognized and alert the fence by the platform;
- ◆ 可在发生报警时向监护号码发送警报短信/电话，警报同时上传平台； /Send an alert SMS / phone to the monitoring number when the alarm occurs, and the alarm can be uploaded to the platform at the same time;
- ◆ 终端采用知名厂商工业级高稳定性 GPRS 模块，内置 GSM 高灵敏度天线，支持 TCP/IP 数据传输，支持域名/IP 地址连接服务器； /The terminal adopts industry-grade high stability GPRS module of well-known manufacturers, with built-in GSM high sensitivity antenna, supports TCP / IP data transmission, and supports domain name / IP address connection server;
- ◆ 内置大容量存储芯片，支持离线状态下数据存储，盲区数据的补传；当宠物在无线信号弱或者干扰严重的地方，把宠物行走的数据暂时存储在 FLASH 内，当无线信号恢复正常之后，能补传这些数据，实现数据不遗漏； /Built-in large capacity memory chip, support offline data storage, blind area data transmission; when the pet in the wireless signal is weak or serious interference, the pet walking data temporarily stored in FLASH, when the wireless signal returned to normal, can transfer these data, to achieve data without omission;
- ◆ 内置 3 轴加速度传感器，融合精准加速度算法，实时获取宠物当前姿态等情况判断； /Built-in 3-axis acceleration sensor, fusion of accurate acceleration algorithm, real-time access to the pet's current attitude and other situation judgment;
- ◆ 高灵敏度 GPS/BDS 双星定位模块，抗干扰的陶瓷天线，实现搜星信号更稳定，支持 AGPS 快速定位跟踪、同步授时； /High sensitivity GPS / BDS double star positioning module, anti-interference ceramic antenna, to achieve more stable star search signal, support AGPS fast positioning and tracking, synchronous timing;
- ◆ 支持在线远程升级、远程配置产品参数； /Support online remote upgrade, remote configuration of product parameters;
- ◆ 历史轨迹平台保留 180 天。 /The historical track platform was retained for 180 days.

4 性能参数/ performance parameter

项目/Item	YES	NO	参数/Parameter	
电气特性/electrical character				
供电方式/名 power supply mode	●		电池供电/Battery powered	
工作电压范围/Operating voltage range	●		DC 3.4V - 4.5V	
工作状态:电压/电流/ Operating status: voltage / current	●		4V/平均/ 4V / average	
待机状态:电压/电流/ Standby state: voltage / current	●		4V/平均/ 4V / average	
内置电池容量/Built-in battery capacity	●		700mAh (3.7V 聚合物电池)/ 700mAh (3.7V Polymer Battery)	
环境特性/Environmental				
工作温度范围/ Operating temperature range	●		-20℃ - 75℃	
存储温度范围/ Storage temperature range	●		-30℃ - 80℃	
工作湿度范围/Operating humidity range	●		10%-85% RH 不凝结/ non-condensing	
通信特性/Communication characteristics				
通信模组品牌/芯片型号/ Communication module brand/chip model	●		SIMCOM A7670C	
通信频段/ Communication frequency band	●		LTE/4G	LTE-FDD: B1/B3/B5/B8
				LTE-TDD: B34/B38/B39/B40/B41
SIM 卡/SIM card	●		Nona SIM card	
通信天线/Communication antenna	●		内置 FPC 天线/ Built-in FPC antenna	
GPS/BD 定位特性/ The GPS/BD localization characteristics				
定位模组品牌/芯片型号/Positioning module brand / chip model	●		AT6558R	
定位方式/Location mode	●		BDS/GPS/GLONASS	

冷启动时间/Cold start time	●		平均 32 秒/ Average 32 seconds
热启动时间/Hot start time	●		平均 1 秒/ Average 1 seconds
跟踪灵敏度/Tracking sensitivity	●		-162dBm
定位天线/Positioning antenna	●		内置天线/Built-in antenna
天线规格/Antenna specifications	●		5mm×5mm×0.9mm
GPS 频段/GPS frequency range	●		L1: 1575.42±1.023MHz
北斗频段/Beidou frequency band	●		B1: 1561.098±2.046MHz
卫星通道数/ Number of satellite channels	●		64
定位精度/ positioning accuracy;	●		<2m (1σ)
授时精度/Time accuracy	●		<30ns (1σ)
测速精度 / Rate accuracy	●		<0.1m/s (1σ)
外部接口/Peripheral interface			
磁吸充电口+串口/Magnetic suction charging port + serial port	●		1 路/1 Road
蜂鸣器/Buzzer	●		1 路/1 Road
LED 灯	●		充电灯(红)+GPS(黄)+4G(蓝)+录宠灯(白) /Charging light (red) + GPS (yellow) + 4G (blue) + record pet light (white)
外形规格/Appearance specifications			
主机尺寸(长宽高)/ Host size (length, width and height)	●		75.8mm*37.6mm(不计算挂耳为 30mm)*19mm/ 75.8mm*37.6mm(30mm not calculated)* 19mm
外壳材质/Case material	●		ABS 塑料/ABS plastics
IP 防护等级/IP levels of protection	●		IP67
主机重量/Host weight	●		42.2g

5 产品使用介绍/Introduction to Product Usage

5.1 SIM 卡安装方式/SIM card installation mode

摘除项圈固定硅胶扣后，用螺丝刀拧开背盖进行安装。

After removing the collar to fixing the silicone buckle, unscrew the back cover with a screwdriver for installation.

5.2 指示灯说明/Indicator light description

红色灯-充电指示灯/Red LED-charging indicator light

灯的状态/status of LED	含义/meaning
常 亮/Often bright	充电中/In charging
不 亮/Not bright	已充满/Has been full of

黄色灯-GSM 指示灯/Yellow LED-The GSM indicator light

灯的状态/status of LED	含义/meaning
2 秒内快闪 1 次/Flash up once in 2 seconds	GSM 初始化/GSM initialise
常 亮/Often bright	GSM 通讯正常/ The GSM communication is normal
不 亮/Not bright	GSM 休眠/关机/ GSM dormancy / shutdown

蓝色灯-GPS 指示灯/Blue LED-GPS indicator light

灯的状态/status of LED	含义/meaning
2 秒内快闪 1 次/Flash up once in 2 seconds	卫星信号搜索中/ Satellite signal search in the
常 亮/Often bright	GPS/BDS 已定位/The GPS / BDS is located
不 亮/Not bright	GPS/BDS 休眠/GPS / BDS dormancy

5.3 工作逻辑/ Work logic

①状态说明/State description:

开关机状态：设备通过按键长按三秒开关机，关机后不上传任何数据。

Switch status: the device presses it for three seconds, uploading no data after shutdown.

工作状态：设备工作灯亮，GPRS、GPS 都处于工作状态。

Working state: the equipment working light is on, GPRS and GPS are in working state.

待机状态：设备 GPRS 工作（平台保持在线，可在线下发指令和短信），GPS 不工作。

Standby status: the device is GPRS to work (the platform remains online, it can issue instructions and text messages online), and the GPS does not work.

②工作模式说明/ Work mode description:

连续定位：设备默认处于工作状态，默认 30S 更新一次位置；

Continuous positioning: the device is in working state by default, and the default 30S updates updated once;

正常模式：设备默认处于待机状态，期间检测到震动每 10 分钟进入工作状态更新一次位置，未检测到震动则一直处于待机状态；

Normal mode: the device is in the standby state by default, during which the detected vibration enters the working state to update the position once every 10 minutes, but the undetected vibration is always in the standby state;

省电模式：设备默认处于待机状态，期间检测到震动每 1 小时进入工作状态更新一次位置，未检测到震动则一直处于待机状态；

Power saving mode: the equipment is in the standby state by default, during which the detected vibration enters the working state once every 1 hour, and the vibration is not detected and is always in the standby state;

待机模式：设备默认处于待机状态，期间检测到震动每 12 小时进入工作状态更新一次位置，未检测到震动则一直处于待机状态；

Standby mode: the device is in the standby state by default, during which the vibration is detected in the working state to update the position once every 12 hours, and the vibration is not detected and it is always in the standby state;

③震动报警说明/Shock alarm instructions:

平台下发设防指令后，设备静止三分钟后就会进入设防状态，检测到震动后上传震动报警，设防仅生效一次。

After the platform issues the fortification instruction, the equipment will enter the fortification state after resting for three minutes. After detecting the vibration, the vibration alarm is uploaded, and the fortification only takes effect once.

6 联系信息/ Contact information

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