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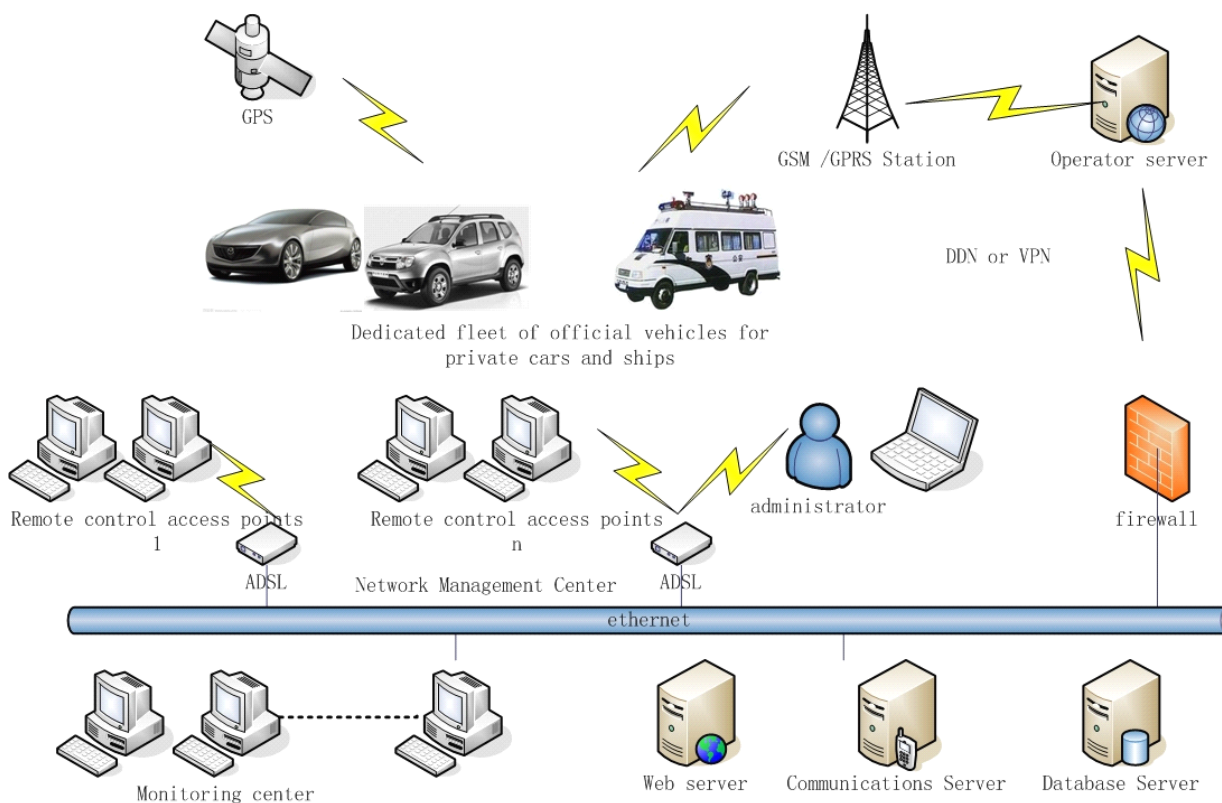
## F7113 GPS+GPRS TRACKER TECHNICAL SPECIFICATION

### General

F7113 GPS + GPRS TRACKER is an independent research and development of wireless car GPS positioning terminal, which is designed by Xiamen Four-Faith Communication Technology Co., Ltd. By using global satellite positioning system (GPS), geographic information systems (GIS), public cellular network (GPRS), it provide user online vehicle RMON.

The product uses the high-performance industrial-grade 32-bit communications processor, industrial-grade GPS positioning module and industrial grade wireless module, taking embedded real-time operating system software as support platform, providing RS232 interface (with the +5 V power output) for communication with external multiple RS232 devices, and the flexibility of the equipment used; design of low-power, lowest power consumption less than 1mA; 9 IO channels for digital input、digital output, pulse output, analog input, pulse counting function .

The product can be widely used in car networking in various industries, such as buses, taxis, police cars, armored car, law enforcement vehicles, logistics team, school bus, class lines bus, tourist bus, dangerous chemicals, freight cars and other vehicles .



## Features

### Design for Industrial Application

- ◆ High-powered industrial cellular module
- ◆ High-powered industrial GPS module, Beidou optional
- ◆ High-powered industrial 32 bits CPU
- ◆ Support low power consumption mode, including multi-sleep and trigger modes to reduce the power dissipation farthest
- ◆ Embedded Real Time Clock(RTC) circuit which can realize timing online/offline function
- ◆ Housing: iron, providing IP30 protection
- ◆ Power range: DC 9~35V, 12V suggested

### Stability and Reliability

- ◆ Support hardware and software WDT
- ◆ RS232 port with +5V power output: 15KV ESD protection
- ◆ SIM/UIM port: 15KV ESD protection
- ◆ Power port: reverse-voltage, overcurrent and overvoltage protection
- ◆ Antenna port: lightning protection(optional)

### Standard and Convenience

- ◆ Standard car terminal interfaces: convenient for Automotive application.
- ◆ Support standard RS232 port that can connect to serial devices directly
- ◆ TTL logic level RS232 interface can be customized
- ◆ Provide management software for remote management
- ◆ Support several work modes
- ◆ Convenient configuration and maintenance interface

### High-performance

- ◆ Real-time wireless data transmission by SMS or GPRS (TCP / UDP)
- ◆ Vehicle roll call monitoring
- ◆ Historical track playback
- ◆ Real time monitoring
- ◆ Distance monitoring(optional)
- ◆ Listener (optional)
- ◆ GSM blind compensation
- ◆ GPS blind compensation(optional)
- ◆ Can store 9000 messages
- ◆ Acceleration sensor(optional)
- ◆ SOS
- ◆ Motion alarm
- ◆ Electronic fence
- ◆ Yaw alarm
- ◆ Undervoltage alarm
- ◆ Down alarm
- ◆ Speed alarm
- ◆ Ignition detection
- ◆ Door switch alarm
- ◆ Power off (optional)
- ◆ Speed detection
- ◆ GPS antenna detection alarm
- ◆ Timeout car alarm(optional)
- ◆ Overtime parking alarm(optional)
- ◆ Built-in lithium battery life of 8 hours
- ◆ Two power system, Car electric and lithium battery, which can automatically switch
- ◆ Remote management and upgrade
- ◆ RS232 port with +5 V power output controllable
- ◆ 2 analog signal input, which can be connected to the fuel tank sensors or other analog sensors.
- ◆ Provide powerful GIS management software, for your convenient device management

## Specifications

### Wireless parameters

Item	Content
Cellular Module	Industrial cellular module
Standard and Band	EGSM900/GSM1800MHz, GSM850/900/1800/1900MHz(optional) Compliant to GSM phase 2/2+ GPRS class 10, class 12(optional)
Bandwidth	85.6Kbps
TX power	GSM850/900: <33dBm GSM1800/1900: <30dBm
RX sensitivity	<-107dBm

### GPS parameters

Item	Content
GPS module	Industrial GPS module
Receiver Type	50 channels,GPS L1 Frequency ,C/A code,SBAS:WAAS,EGNOS,MSAS
TTF	Cold Start:32S Warm start: 32S Hot start: 1S Auxiliary start: 3S
Receiver sensitivity	Tracking and positioning:-160dBm Recapture:-160dBm Cold start:-146dBm Hot start:-156dBm
Horizontal positioning accuracy	GPS: 2.5m SBAS: 2.0m
Speed Accuracy	0.1m/s
Heading progress	0.5 degrees

### Hardware system

Item	Content
CPU	Industrial grade 32 communications processors
FLASH	2MB (expandable 8MB), for the blind compensation data storage, configuration parameters are stored, remote upgrade.
SRAM	512KB (expandable to 1MB)

### Interface Type

Item	Contents
Serial ports	1 RS232 serial port with +5 V controlled power output, with short-circuit protection. Can be flexible external expansion devices, such as TTS voice box, image acquisition. 15KV ESD protection, serial rate: 110 ~ 230400bits / s.
Indicator	Power, Act, Online, GPS indicator
Antenna Interface	Standard SMA female interface, 50 ohm
SIM / UIM card interface	Standard user card drawer interface, support 1.8V/3V the SIM / UIM card, built-in 15KV ESD protection
Power Interface	Car terminal interface, built-in power inverting protection, overcurrent protection, overvoltage protection.

### Power supply

Item	Contents
Standard power	DC 12V
Supply range	DC 9~35V

### Power consumption

Work status	Power Consumption
Communication status	110mA@12VDC;
Standby	30mA@12VDC;
Hibernation	8mA@12VDC;
Timing shutdown state	0.6mA@12VDC;

### Physical characteristics

Item	Contents
Shell	Metal housing, protection class IP30. The shell and system security isolation, particularly suitable for industrial control field applications
Dimensions	91x58.5x27 mm (Not including antenna and mounting)
Weight	220g

### Other parameters

Item	Contents
Operating Temperature	-20~+55°C (-4~+131°F)
Extended Operating Temperature (No battery)	-30~+75°C (-22~+167°F)
Storage Temperature	-40~+85°C (-40~+185°F)
Relative humidity	95%(Non-condensing)