CM410 GPS MODEM

Product Introduction

Industrial GPS MODEM/CM410, is a positioning device which is based on global satellite positioning system, the device adopts industrial GPS wireless module, and supports serial port RS232 interface output or RS485 interface output.

GPS MODEM can output the positioning data of $GPGGA $GPGSA $GPGSV $GPRMC one time/per seconds by serial port RS232 or RS485 interface, we usually use $GPRMC Simplified data to output this message, this message includes longitude, latitude, speed (nautical mile/hour), Movement direction Angle, year, month, hour, minutes, seconds, millisecond.

CM410 has been widely used in Official vehicles positioning, taxi positioning, Logistics vehicles positioning, Company vehicles positioning etc industry.

Model No.

Model No.	Interface Type	RS232	Receive GPS
CM410	DB9 Interface	Support	Support

Technical Parameters

Device Interface Diagram

CM410 Accessories

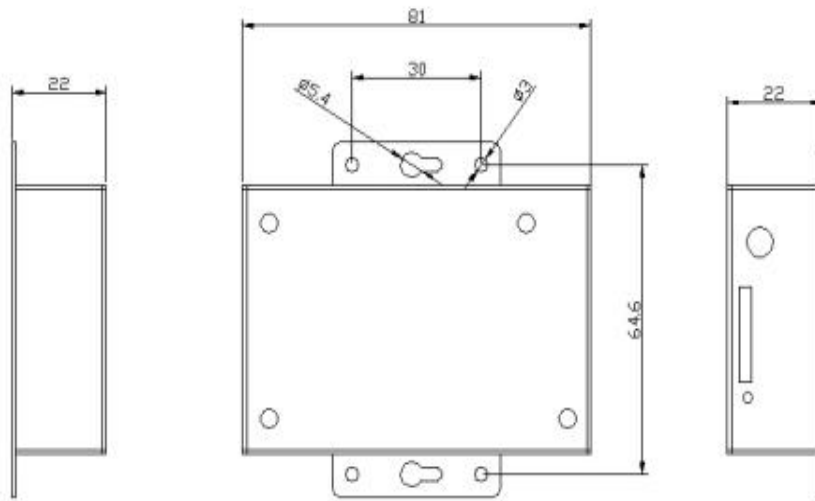| Power Connector | RS232 Serial Cable | RS485 Serial Cable | Antenna |

Industrial Design

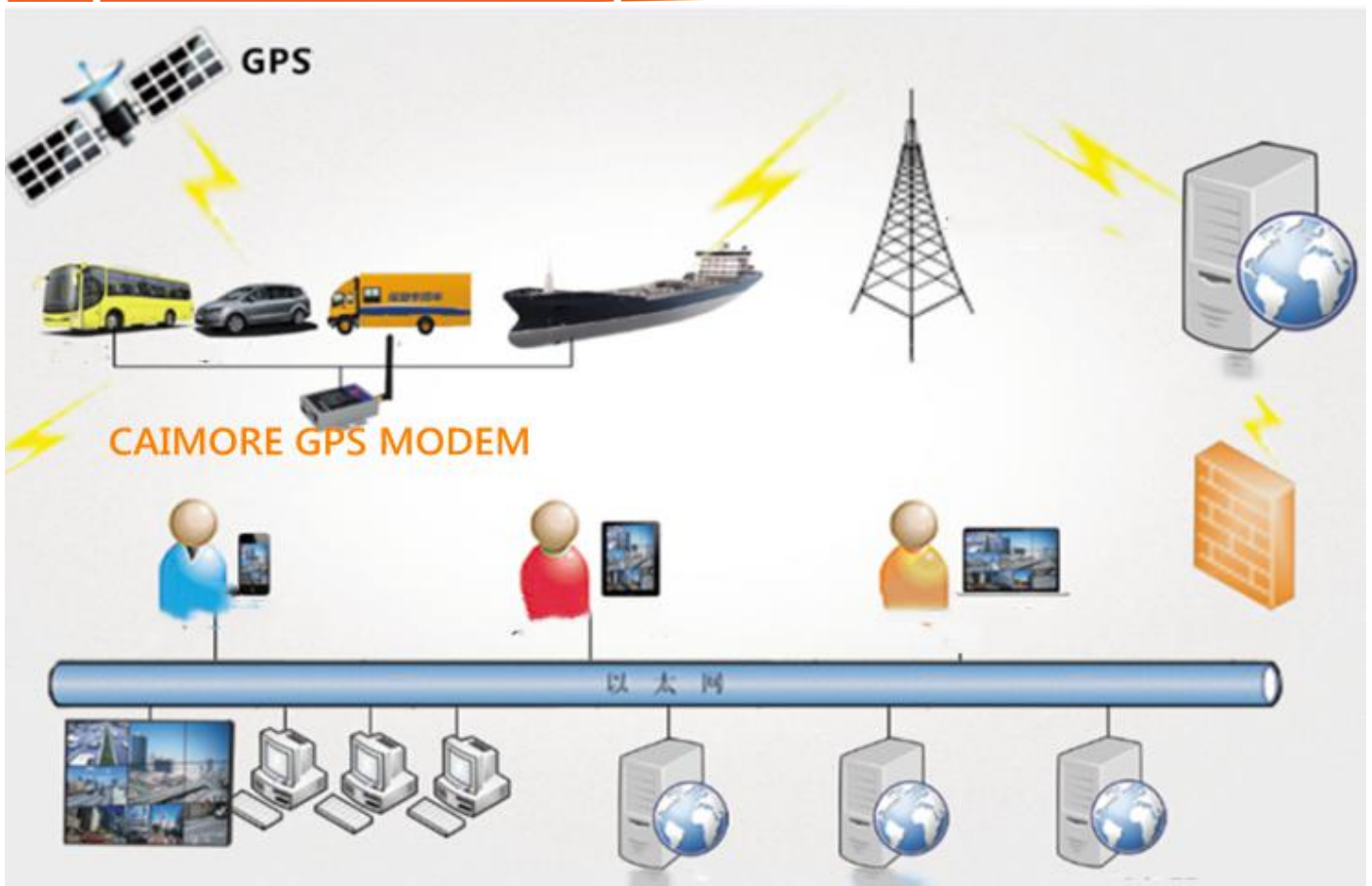| Industrial wireless module	Using industrial wireless module, with strong anti-interference and stable transmission.
Strengthened circuit board	PCB followed the principles of 20H and 3W, meanwhile all products of circuit boards used high-quality materials to ensure the plate material stable and reliable.
Industrial components	Device components use strictly screened industrial-grade components.

Model NO.	CM410
Parameters	
Wireless module	Using industrial GPS wireless module
Receiver types	Receive global positioning system, 50 channel, L1 frequency,1.023Mhz chip speed, C / A coding. Support SBAS:WAAS,EGNOS, MSAS, can be compatible with GALILEO
Positioning accuracy	Position:2.5m CPE SBAS:2.0m CPE
Speed accuracy	Speed accuracy< 0.01 m/seconds（High speed）<0.01° (heading),（ 50 % @ 30 m/seconds）
Time accuracy	1 microsecond synchro GPS time
Capture time	Cold boot :27S, Auxiliary Start:<3 seconds, warm boot:<1 seconds
Data format	NMEA-1083, SiRD binary system

Input information	NMEA, SiRF binary system, height/position/date/time
Output information	NMEA-0183,SiRF binary system,GGA GSA GSV RMC VTG GLL
Seconds pulse output	1pps accuracy±1us
Navigation data update rate	5Hz
Sensitivity	Following: -162dBm, cold boot:-147dBm, warm boot:-156dBm
Serial Port Parameters	
Data Bit	7, 8
Stop Bit	1, 2
Parity Bit	No parity, Odd parity, Even parity, SPACE and MARK parity
Serial Speed	110bps ~ 230400bps
Flow Control	None flow control, RTS / CTS hardware flow control or XON / XOFF software flow control
Interface	DB9, Support 1* RS485 interface or 1* RS232 serial port (support RS422/TTL)
Interface	
Indicator	Power / ACT / Online
Antenna Interface	Standard SMA female interface,50ohm, optional 3M/5M/10M/15M antenna extension cable, meet the different needs of customers.
UIM Interface	NONE
Voice Interface	Standard headset interface (requires software)
Power Interface	Standard 3-pin power jack.
Power Supply	
Supply Voltage	Wide voltage design, DC 5V to the DC32V power supply directly to the device, and built-in power supply over-voltage protection and reverse current protection
Standard Power Supply	DC9V/500mA
Average Communication Current	90mA@+9VDC
Communicating Instantaneous Peak Current	1.0A@+9VDC
Standby Current	<36mA@+ 9VDC
Physical Features	
Shell	Metal shell: metal case, anti-radiation, anti-interference, shell and system security isolation, lightning protection design, meet the power requirements of safety regulations, protection rating IP30, particularly suit for harsh industrial control environments.
Product Dimension	81*55*20 mm(Antenna and fixer are not included)
Package Size	298*226*60mm
Weight	0.41kg
Other Parameters	
Operating Temperature	-25ºC ~ +65ºC
Extended Operating Temperature	-35ºC ~ +75ºC
Storage Temperature	-40ºC ~ +85ºC
Relative Humidity	95%(No condensation)

Installation Dimension

Product Application

Typical application

Transitional industry

- ✧ Taxi positioning
- ✧ Official vehicles positioning
- ✧ Logistics vehicles positioning
- ✧ Company vehicles positioning etc industry
- ✧ Ship positioning
- ✧ All kinds of Application Scenario that need positioning

Corporate Qualification

Item	Content
Corporate Honor	2011, it was rated as "the best supplier for customer satisfaction in China's industrial control industry", the company's GPRS DTU product was rated as "innovative product award". 2012, the company became a member of "China Quality Travel". 2013, the company became a member of the "Technical Innovation Strategic Alliance of Intelligent Power Transmission and Distribution Equipment Industry". 2014, it was rated as an innovative pilot enterprise . 2014, the company's Zhanjiang Wi-Fi coverage project was awarded the "Sample Engineering Award" by the 13th China Automation Annual Conference. 2015, its video products were rated as "Top Ten Video Transmission Enterprises" by China's industrial control industry. 2015, the noise monitoring project was awarded the "Sample Project Award" by the 14th China Automation Annual Conference. 2015, its video products were rated as "Top Ten Video Transmission Enterprises" by Huaqiang Security Network. 2016, the video products was rated by Huaqiang Security Network as "2015-2016 High-quality Supplier in China's Security Industry". 2016, it was rated as the "best supplier of charging equipment parts" by charging pile communication equipment. 2016, won the " Product Gold Award of 2016 7th Guangzhou International New Energy

	Automobile Industry Exhibition ". 2016, The 3rd China Good Wi-Fi Organizing Committee awarded Caimore "2016 Best Wi-Fi Industry Application Solution Provider". 2018, the company's industrial router was rated as "China's Top Ten Industrial Router Brands", and DTU was rated as "China's DTU Top Ten Brands" 2018, it was rated as a key listed reserve enterprise in Xiamen City. 2019, it was rated as a key listed reserve enterprise in Xiamen City. 2019, it was rated as a key listed reserve enterprise in Fujian Province. 2019, Shortlisted for China Telecom Corporation Limited, DICT solution partner of Shanghai branch 2020, Selected as a key listed reserve company in Xiamen
High-tech Enterprise	2009, it was recognized as a high-tech enterprise by the country
Double-soft Enterprise	2010, it was recognized as a double-soft enterprise by the country
Occupational Health and Safety Management System Certification	ISO9001:2015 quality management system conforms to the standard ISO14001:2015 environmental management system conforms to the standard ISO45001:2018 occupational health and safety management system conforms to the standard
Copyright	The company has 7 patented technology certificates to maintain equipment stability and 31 software copyright certificates.
Offices	Nine regional offices have been established nationwide to provide customers with close and considerate services.
Registered Capital	The company has a registered capital of 20.58 million, it is a key high-tech enterprise supported by Xiamen City.
Historical Accumulation	18 years of industry R&D accumulation and industry application test.