

GPS functions for 7188XA introduction



◆ void Get_NMEA(int ComPort, char *NMEAmsg, char *buf)

The function allows you to get the NMEA 0183 sentence with 7188XA.

The argument ComPort is the Com port of 7188XA which connect to the GPS receiver, such as 1,2,3 or 4. The argument *NMEAmsg decides which kind of NMEA 0103 sentence you will get; you should input the sentence formatter such as "\$GPGGA". The argument *buf is the NMEA 0183 sentence and decided by the argument *NMEAmsg. If you input "\$GPGGA", then you will get the GGA sentence as follows:

\$GPGGA,062816.894,2451.7314,N,12100.9174,E,1,03,07.9,-0016.2,M,16.2,M,,*78

You can handle the *buf depend on your application. Refer to the GPSDEMO.c & GPS_GSM.C for the usage of this function.

◆ void Get_Field(int Field, char *pkg, char *buf)

The function allows you to get the specific GPS info. of NMEA 0183 sentence which is from the *buf of the above function Get_NMEA, such as UTC, lat., or long.

The data of sentence is comma delimited. For instance: the GGA sentence has 14 fields, the argument Filed decide which data you'll get from *pkg.

\$GP GGA,<1>,<2>,<3>,<4>,<5>,<6>,<7>,<8>,<9>,<10>,<11>,<12>,<13>,<14>*hh.
<1> UTC of Position, hhhmmss format
<2> Latitude, ddmm.mmmm format (leading zeros will be transmitted)
<3> Latitude hemisphere, N or S
<4> Longitude, dddmm.mmmm format (leading zeros will be transmitted)
<5> Longitude hemisphere, E or W
<6> GPS quality indication 0=Fix not available, 1=Non-differential GPS fix available, 2=Differential GPS (DGPS) fix available, 6=Estimated
<7> Number of satellite in use, 00 to 12 (leading zeros will be transmitted)
<8> Horizontal dilution of precision, 0.5 to 99.9
<9> Antenna height above/below mean sea level, -9999.9 to 99999.9 meters
<10> Meters (antenna height unit)
<11> Geoidal height, -999.9 to 9999.9 meters
<12> Meters (Units of geoidal separation)
<13> Differential GPS (RTCM SC-104) data age, number of seconds since last valid RTCM transmission (null if non-DGPS)
<14> Differential reference station ID, 0000 to 1023 (leading zeros will be transmitted, null if non-DGPS)

Refer to the GPSDEMO.c & GPS_GSM.C for the usage of this function.

- ◆ Before you use the above two functions, you should include the head file GPS.h in your program and insert GPS.lib in your *.prj file when you compiler this program.