How to Use SecureSync Unit as timing reference and distribution system to be used as a GPS timing receiver for synchronizing the GSG8.

1. Hardware connection

You need to connect 3 links from SecureSync to GSG8:

- 1PPS signal
- 10MHz signal
- RS232 – NMEA GGA & RMC serial Time Code messages
For connections between units:
Use a USB to SUBD serial adaptor (for distributing NMEA GGA & RMC serial Time Code messages)
Example:
FTDI Chip US232R-100-BLK

Use BNC / MCX coaxial cables (2 cables for 1PPS and 10MHz signals)
2. SecureSync Side:
Set the ASCII output PORT (J1 port of a 1204-02 module for example):

Set both RMC and GGA as mentioned in the following example
Offsets of 1PPS and RS232 signals can be adjusted if needed through GUI of SecureSync.
3. GSG8/Skydel Side:

Global Skydel Menu Setting:
Setting preference to get NMEA link:

Set Preferences

Edit for Setting parameters
Use SecureSync for Synchronizing GSG8

Configuration setting:
Setting Time to your scenario:

Receiving SecureSync NMEA Time Code
**Hardware setting:**
Set the CDM5 Rear panel selector to EXT for taking in account the incoming 1PPS and 10MHz clock signals.

**General cabling:***
4. How to test if my synchronization is consistent?

In order to check synchronization result, please refer to our Application Note: “Timing calibration of a GNSS receiver”. This note is available on our web site under the following link: https://www.orolia.com/skydel/support/timing-calibration-gnss-receiver