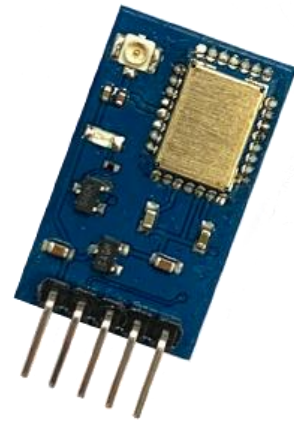


RYS8833_Lite

Ultra Low Power 1.8V UART interface GNSS module

Datasheet



27mm*16mm*1mm



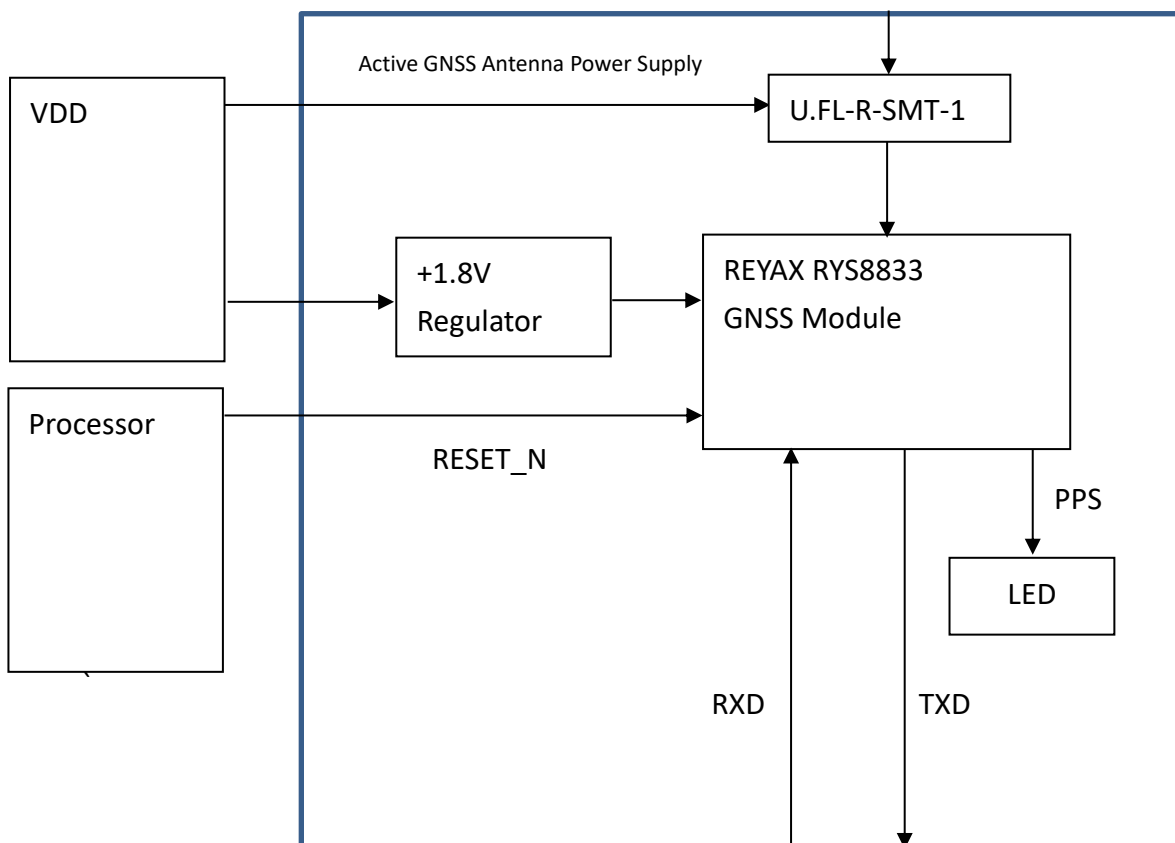
PRODUCT DESCRIPTION

The RYS8833_Lite is a multi-GNSS module with high sensitivity.

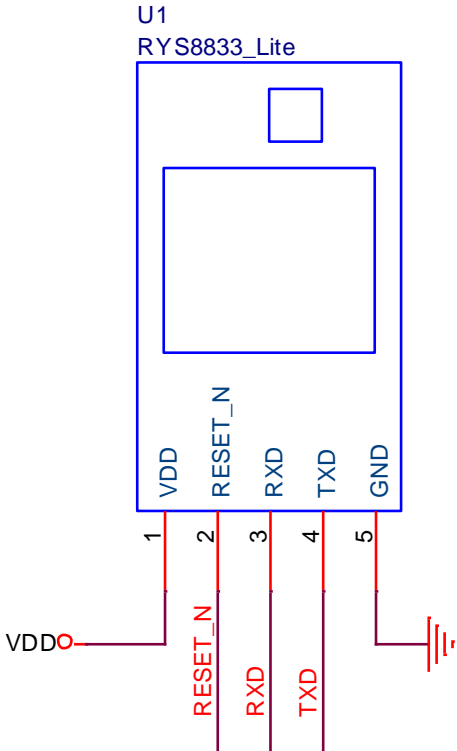
FEATURES

- REYAX RYS8833 with SONY CXD5605GF Engine.
- A multi-GNSS module for GPS(L1 C/A), GLONASS(L1 OF), SBAS(L1 C/A), QZSS(L1 C/A), BeiDou(B1 _{TBD}) and Galileo(E1 CBOC _{TBD}).
- +1.8V UART Interface.

BLOCK DIAGRAM

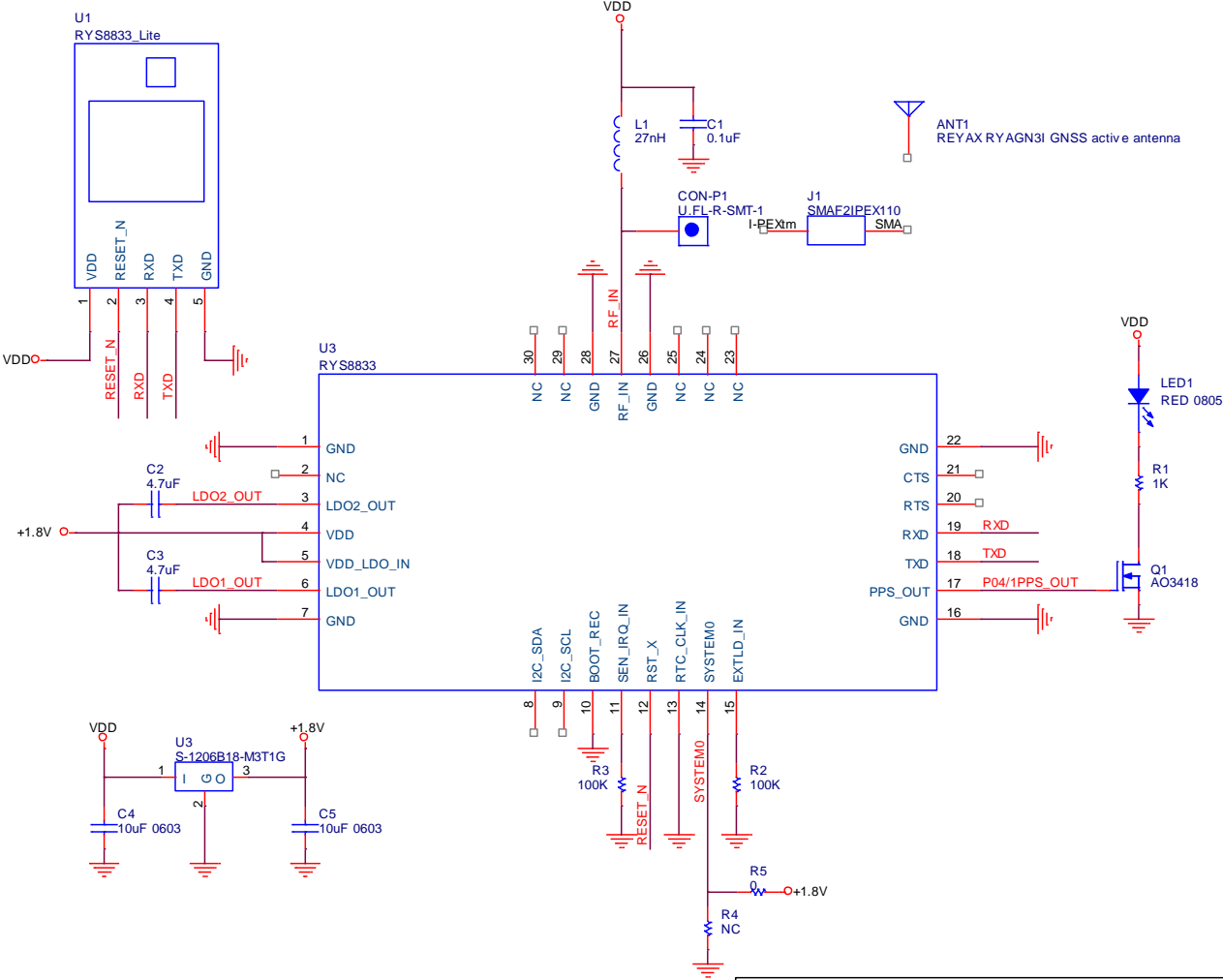


PIN DESCRIPTION



| Pin | Name | I/O | Condition |
|-----|---------|-----|---------------------------------|
| 1 | VDD | I | Power Supply +3.3V |
| 2 | RESET_N | I | Low Reset |
| 3 | RXD | I | Serial interface Input (+1.8V) |
| 4 | TXD | O | Serial interface Output (+1.8V) |
| 5 | GND | - | Ground |

APPLICATION SCHEMATIC (UART Interface)



| | | |
|---------------------|----------------------------|--------------|
| Title | | |
| RYS8833_Lite | | |
| Size | Document Number | Rev |
| Custom>Doc> | | 1.1 |
| Date: | Tuesday, December 20, 2022 | Sheet 1 of 1 |

GNSS Monitor software

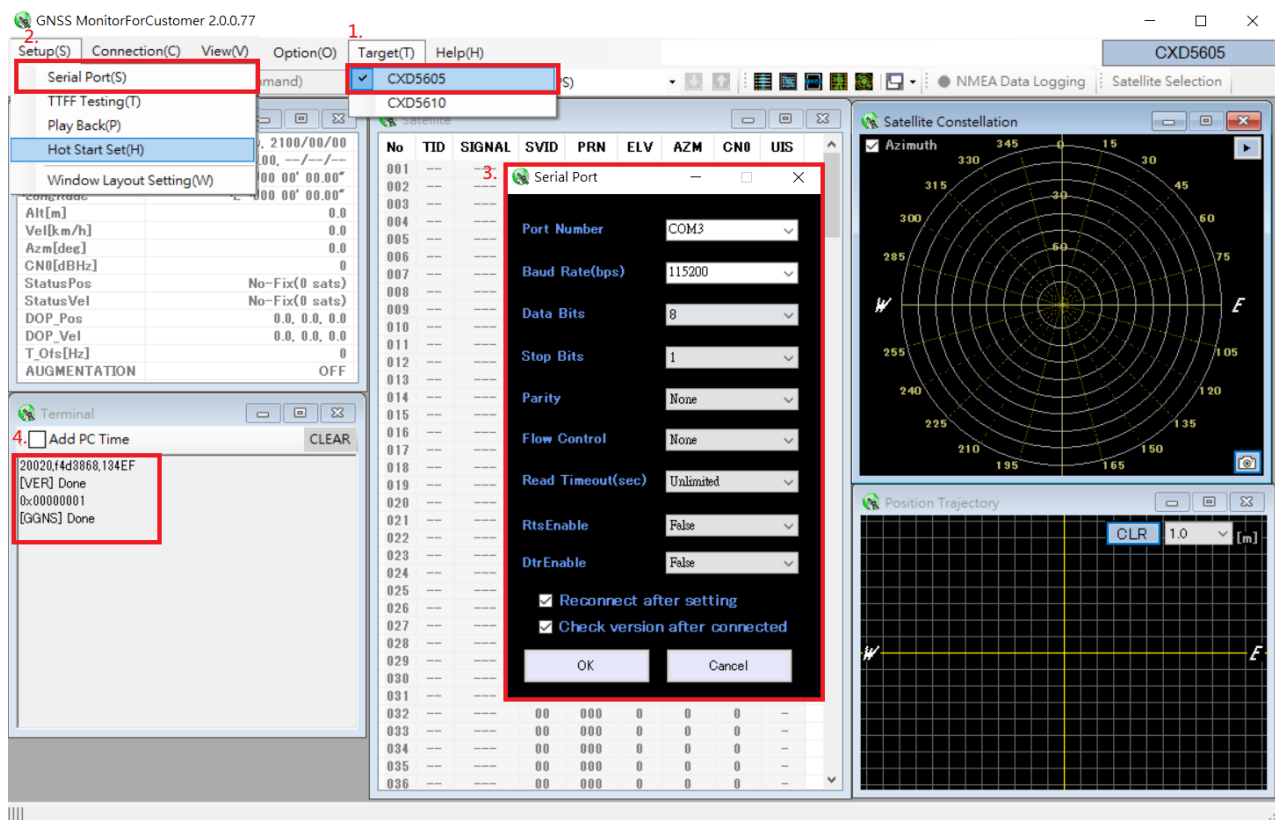
STEP 1. INSTALL THE SOFTWARES

- 1.) Download the GNSS_Monitor2_ForCustomer_Setup(contact REYAX sales)

STEP 2. CONNECTION SETTING

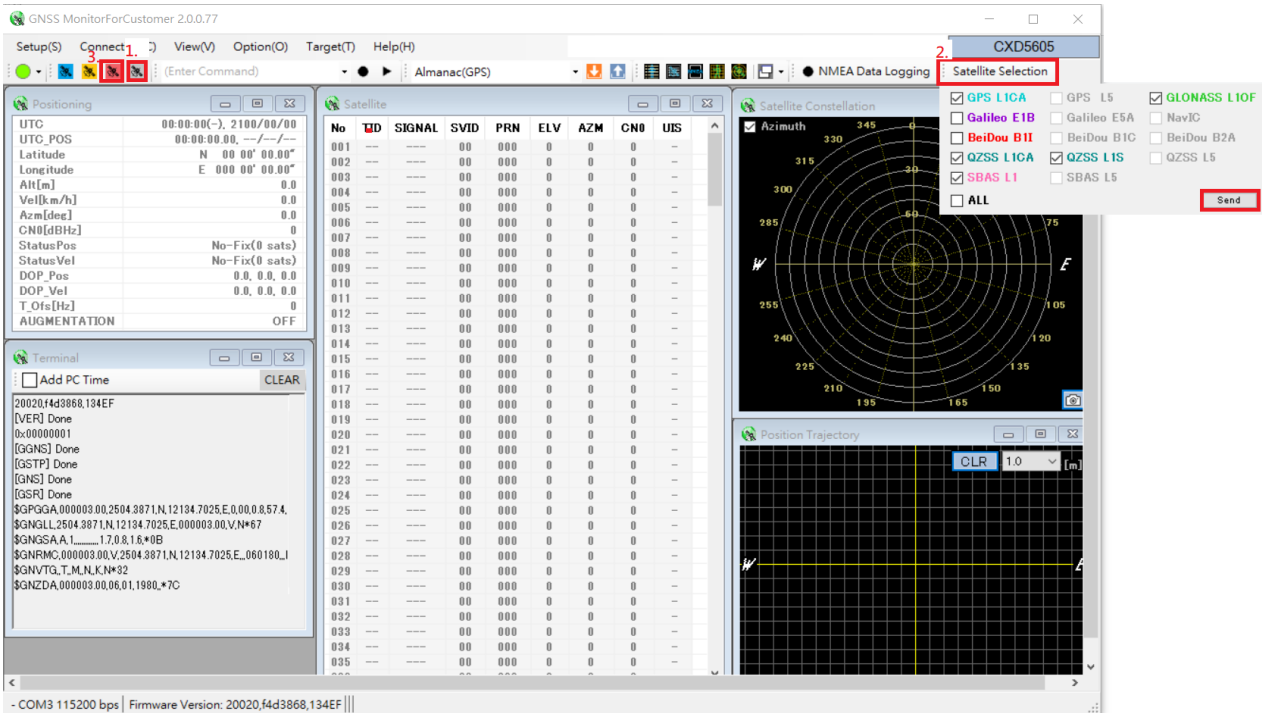
Plug USB to TTL cable to connect the RYS8833_lite and the PC.

- 1.) Open the software GNSS_Monitor2_ForCustomer Target →RYS8833 select CXD5605
- 2.) Open the Serial Port setting
- 3.) Set the COM port number and the baud rate (Default is 115200bps).
- 4.) If connection successful, will show FW version message.



STEP 3. Command input setting

- 1.) Click "IDLE" button, Terminal window will show [GSTP]Done.
- 2.) Click "Satellite Selection" button, after select Satellite and click "Send". Terminal window will show [GNS]Done.
- 3.) Click "Hot start" button, Terminal window will show [GSR]Done. Module start output NMEA log.
- 4.) If want to stop tracking, click "IDLE" button.



*For detailed command user guide, please refer to RYS8830_RYS8833_Software_Guide

QUICK START GUIDE

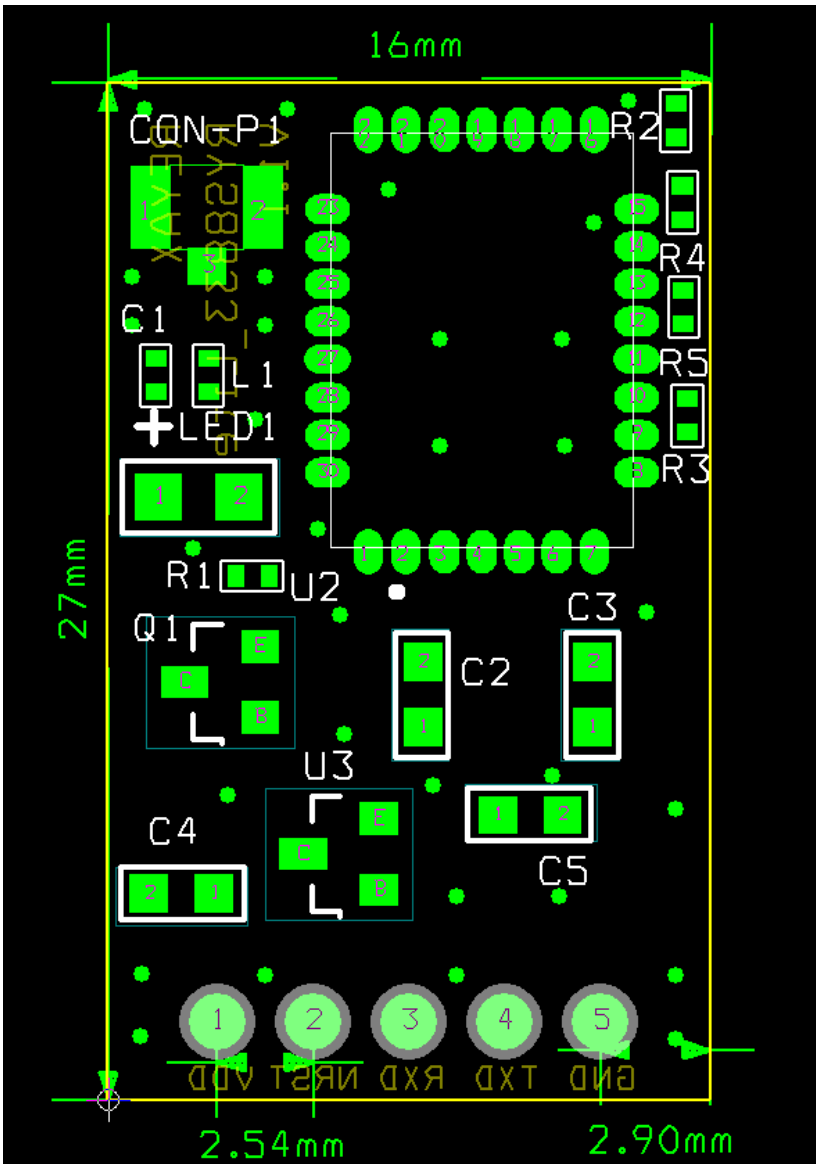
STEP 1. Power on module

STEP 2. Issue command

- 1.) @GSTP // Positioning stop
- 2.) @GNS 47 // Positioning-use satellite use GPS + GLONASS + SBAS + QZSS L1-CA + QZSS L1-S
- 3.) @GTIM 2022 12 20 00 00 00 // inject UTC time
- 4.) @GPPS 1 // enable 1PPS function
- 5.) @GSR // hot start

*For detailed command user guide, please refer to RYS8830_RYS8833_Software_Guide

DIMENSIONS

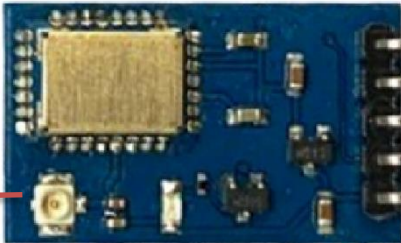


RYS8833_Lite test connection diagram

REYAX RYLS135



REYAX RYS8833_Lite



SMA2IPEX110 Cable



REYAX RYAGN31 Antenna