

SL869 EVK User Manual

1VV0301004 Rev.1 – 2012-06-11



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1. Introduction

1.1. Scope

Scope of this document is to give an overview of the Evaluation kit of the GPS/GLONASS standalone module SL869

1.2. Audience

This document is intended for customers who are evaluating one or more products in the applicability table.

1.3. Contact Information, Support

For general contact, technical support, to report documentation errors and to order manuals, contact Telit Technical Support Center (TTSC) at:

TS-EMEA@telit.com
TS-NORTHAMERICA@telit.com

Alternatively, use:

<http://www.telit.com/en/products/technical-support-center/contact.php>

For detailed information about where you can buy the Telit modules or for recommendations on accessories and components visit:

<http://www.telit.com>

To register for product news and announcements or for product questions contact Telit Technical Support Center (TTSC).

Our aim is to make this guide as helpful as possible. Keep us informed of your comments and suggestions for improvements.

Telit appreciates feedback from the users of our information.



2. Preparing for the SL869 EVK

2.1. What is Necessary

To use the SL869 EVK, you will need:

1. FTDI USB Drivers
2. TELITGPSView
3. A PC with a USB port that fulfills the minimum software requirements
 - Windows XP
 - .NET Framework 2.0
4. A programmed/flushed SL869 EVK
 - V2.0.0.1

2.1.1. Installing the USB Drivers

Before connecting the SL869 EVK, install the necessary USB drivers

1. Double-click the USB driver executable and follow the onscreen directions for installation.



3. SL869 Evaluation Kit

3.1. What's in the Box

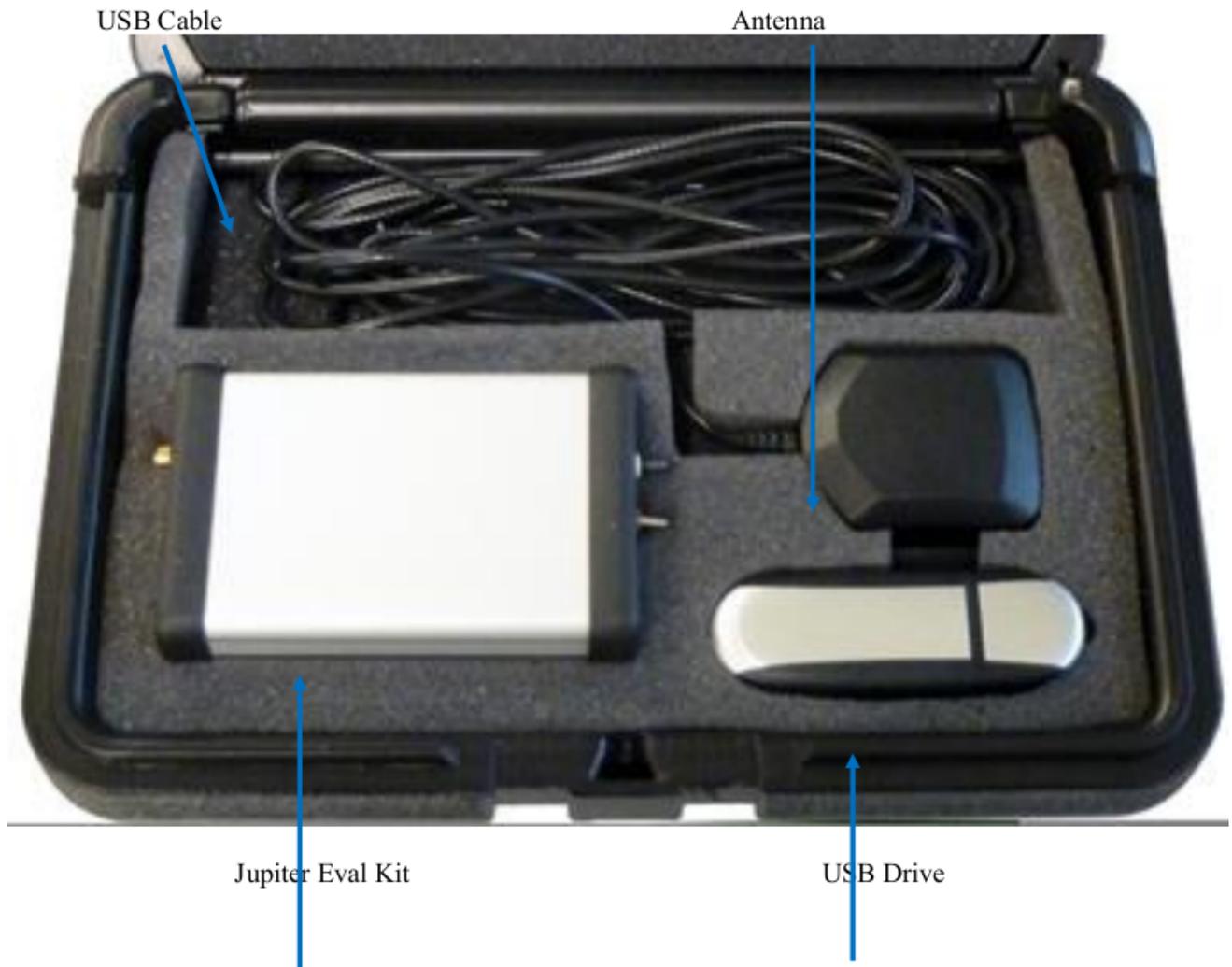


Figure 1 Box Contents



3.2. Jupiter Evaluation Board

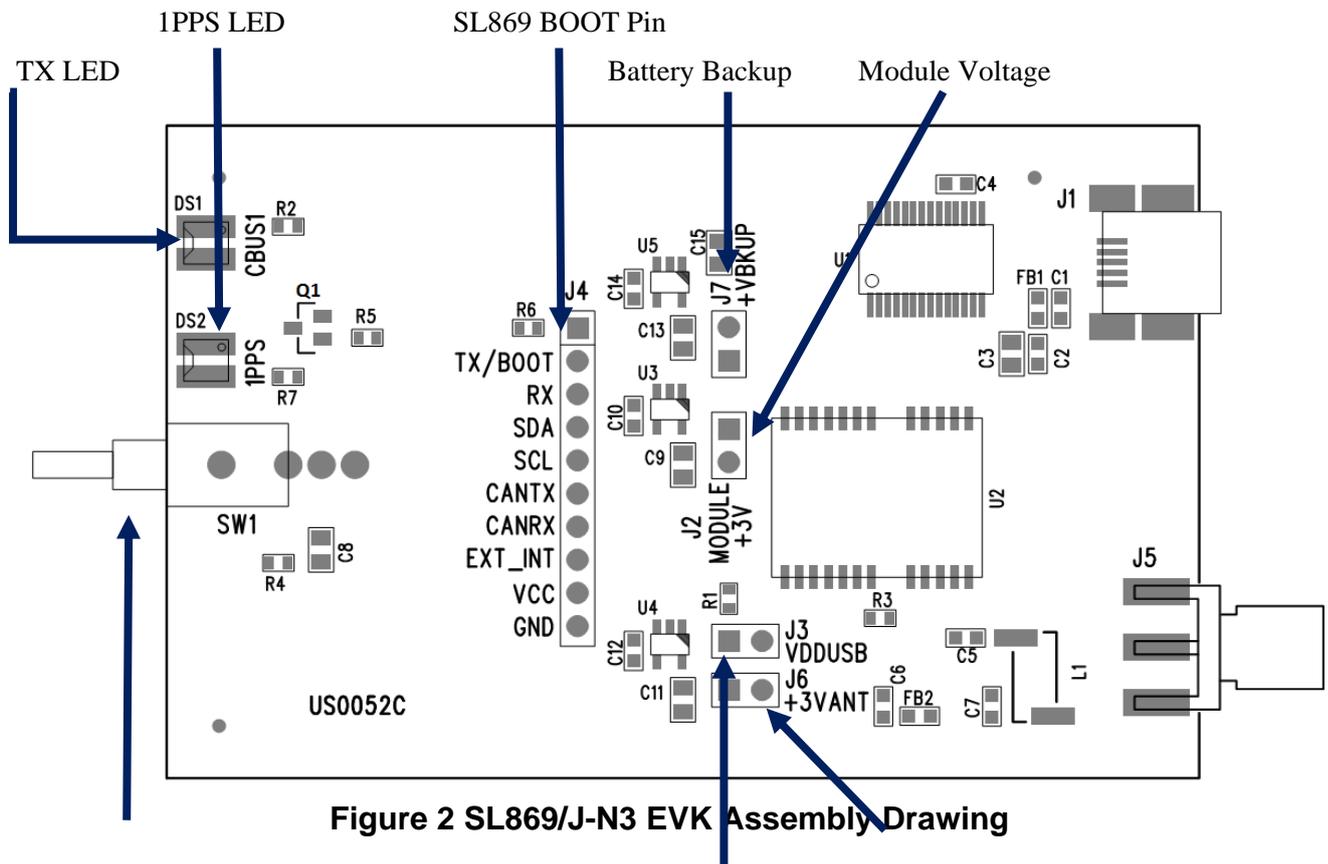


Figure 2 SL869/J-N3 EVK Assembly Drawing

ON Switch

3.3V Antenna Supply

J-N3 BOOT PIN

ITEM

FUNCTION

TX LED

LED that is tied to the USB to UART bridge RX line. The LED blinks whenever it receives data from the module.

1PPS LED

LED that displays the 1PPS output of the module

ON SWITCH

Applies power to the EVK

SL869 BOOT PIN

Place a shunt jumper on PIN 1 and the TX/BOOT of the strip before power application to place the SL869 module into BOOT mode.

BATTERY BACKUP

Place a shunt jumper to enable application of Battery Backup 3.3V

MODULE VOLTAGE

Place a shunt jumper to enable application of 3.3V to the module. Do not remove.

VDDUSB

Place a shunt jumper before power application to put J-N3 to BOOT mode.



+3VANT

Place a shunt jumper to apply 3.3V to an external active antenna.



4. Step-by-Step: First Time Running the SL869 Evaluation Board

4.1. Step-by-Step: First Time Connection

1. Before connecting the evaluation board, ensure that the USB drivers are installed.
2. Ensure that jumpers are installed on **J2**, **J6**, and **J7**.
3. Ensure that there are no jumpers installed on **J3** and **J4**.
4. Connect the provided Active Antenna to the SMA connector.
5. As soon as the evaluation board is connected to the PC, it will be detected and installed.



Figure 3 USB installation, select "Continue Anyway" to proceed.

6. After the evaluation board has been installed, check the "Device Manager" window for the evaluation board COM port number. This information is needed for use with the GPS tools.
7. Turn the switch vertically UP to turn On the EVK.
8. Refer to Chapter 5 for using the EVK with software.



NOTE:

On some occasions, Windows will install a "Microsoft Serial BallPoint mouse after connecting the USB. Uninstall the Microsoft Serial BallPoint mouse if Windows mistakenly installs it.



5. TelitView

Launch the TelitView application



5.1. Main Interface

After launching TelitView, first notice the application’s main interface.

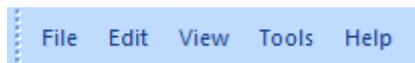


Figure 4 Main Menu Bar



Figure 5 Main Tool Bar

5.2. Connecting to the EVK

5.2.1. Main Menu Bar

Under the “Tools” option on the *Main Menu Bar*, select “Connect to GPS.” This will open the ‘Connect to GPS’ window.

5.2.2. Main Tool Bar

Select the “Connect to GPS” icon under the *Main Tool Bar* and the ‘Connect to GPS’ window will open.



5.2.3. 'Connect to GPS' Window

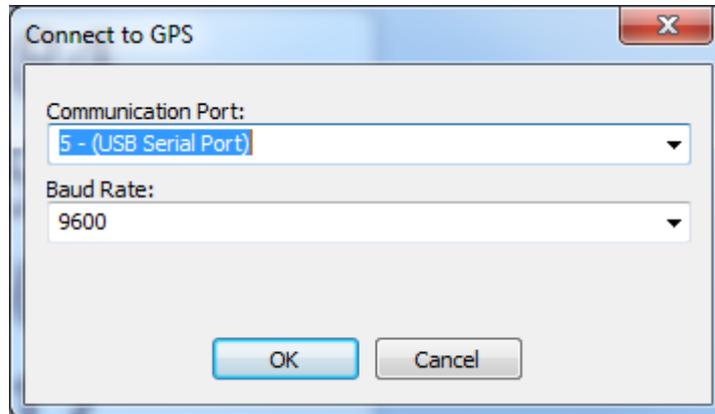


Figure 6 'Connect to GPS' Window

1. Select the correct Communication Port
2. Select the correct baud rate (default – 9600 SL869)

5.3. TelitView Tabular View

TelitView implements a tabular view. Switching between tabs displays different information parsed from the receiver.

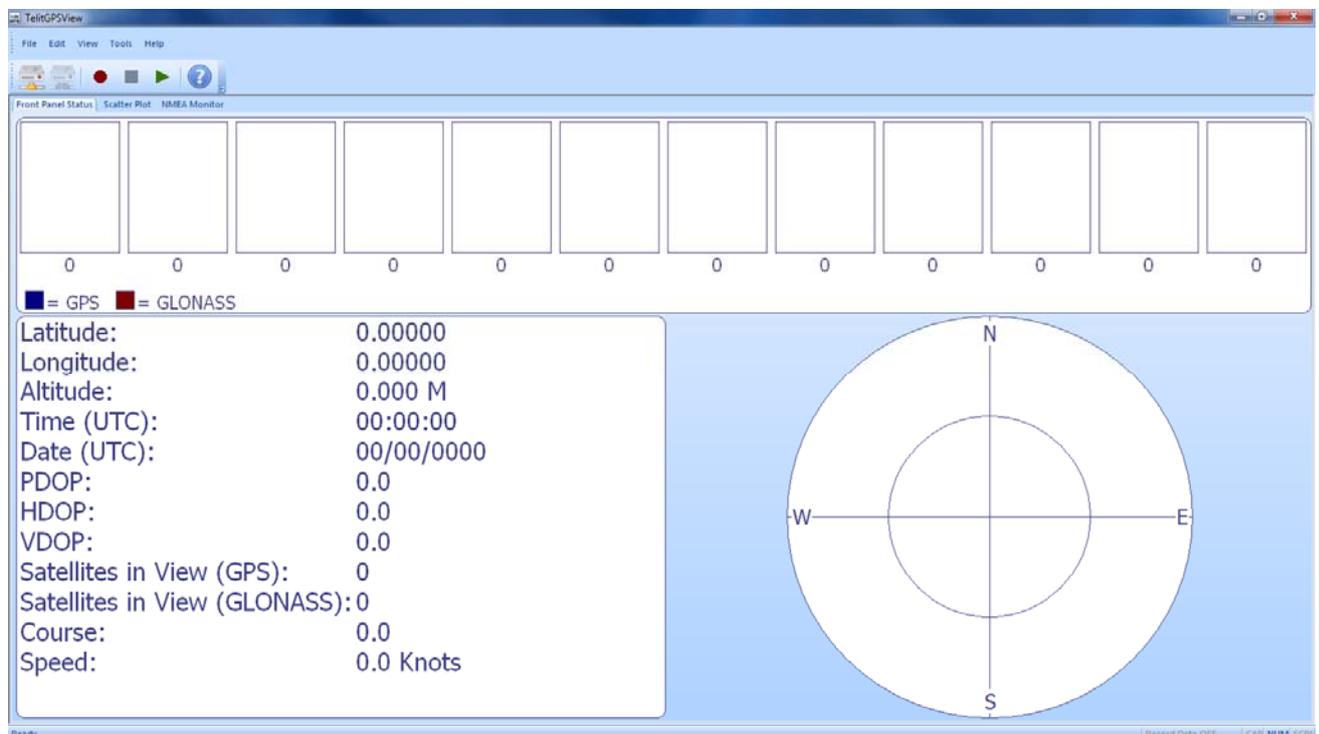


Figure 7 TelitView Application



5.3.1. Front Panel Status

The Front Panel Status Tab displays satellite information as well as position information.

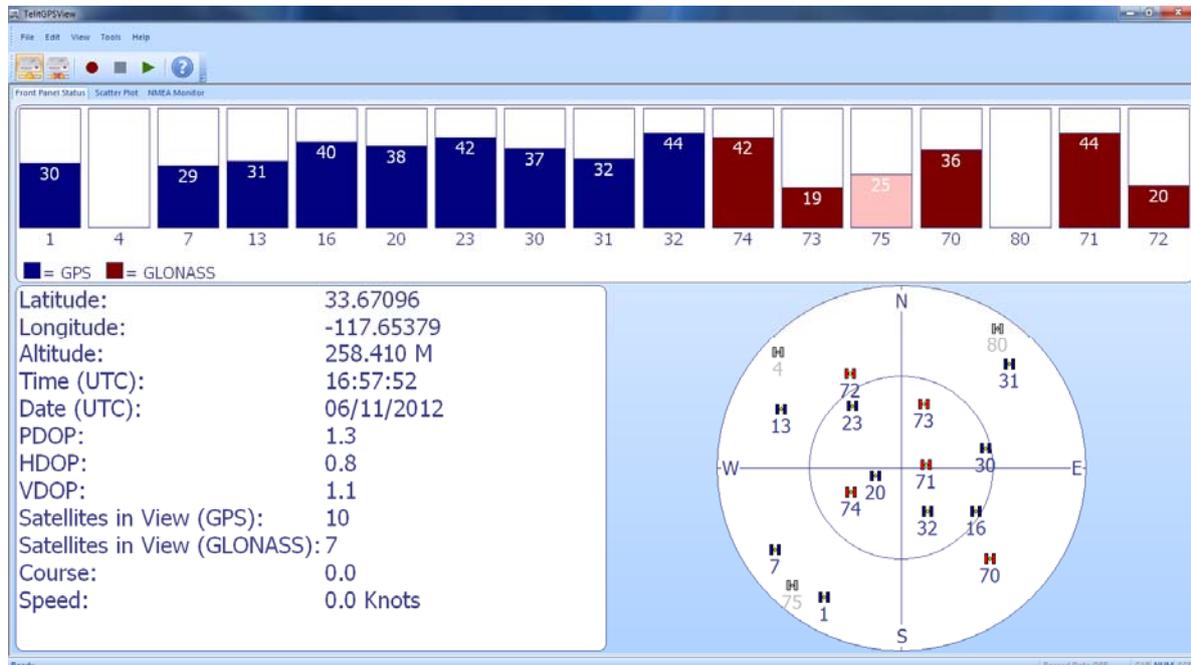


Figure 8 Front Panel Status Tab

5.3.2. Scatter Plot

The Scatter Plot displays position points that are updated every second. The position points are compared to each other in an axis in meters.



Figure 9 Scatter Plot Tab



5.3.3. NMEA Monitor

The NMEA Monitor displays the NMEA output of the receiver. The user can also type in commands in the Transmit toolbar. In order to pause the “Receive” screen, right-click on the window and select “Pause receive”

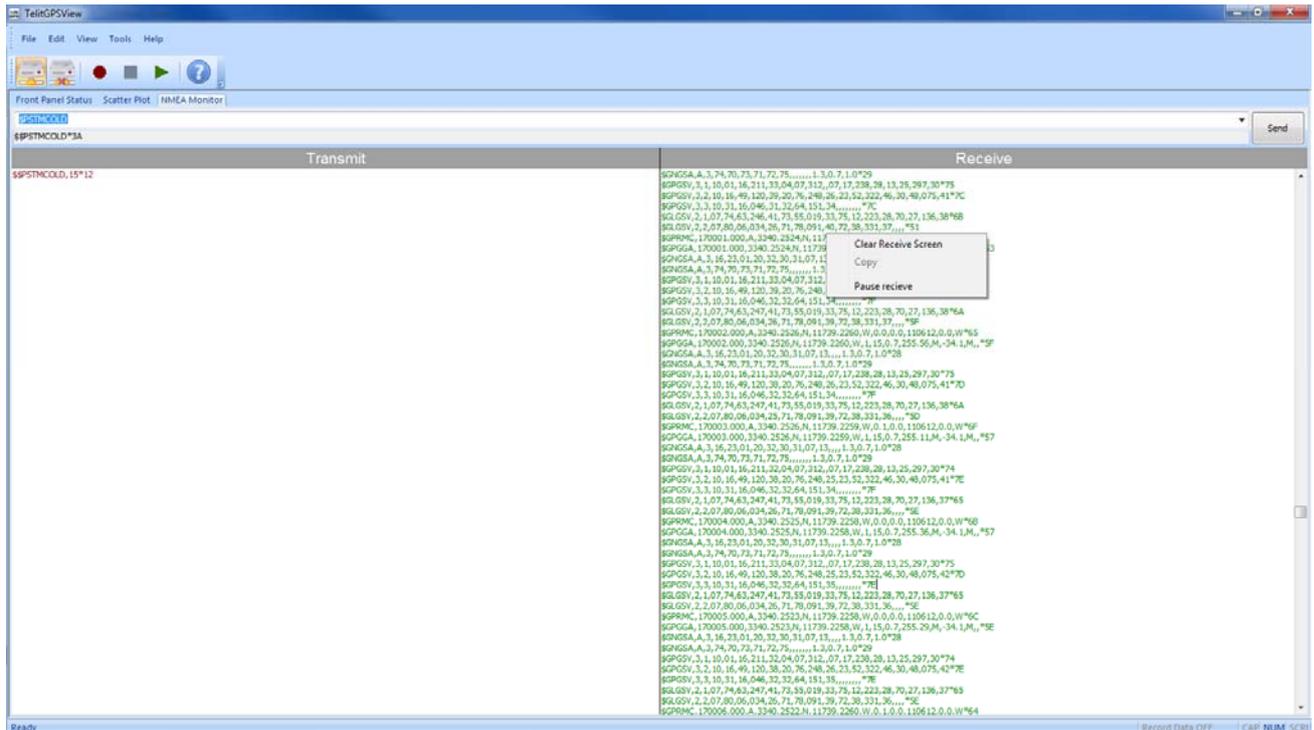


Figure 10 NMEA Monitor Tab

5.3.3.1. User Menu Command Manager

The user has the option to enter in custom commands through the “User Menu Command Manager.” There are 10 available slots for custom commands. Each slot requires a ‘Menu Caption’ and ‘NMEA Command’.

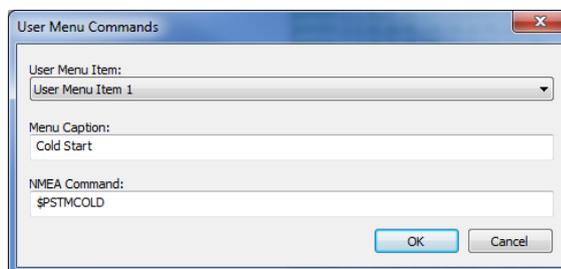


Figure 11 User Menu Command Manager



6. Flashing Firmware with X-Loader

6.1. Flashing Requirements

- V2.0.0.1 and up software from TELIT
- TeseoII X-Loader v1.71 from TELIT

6.2. Flashing Instructions

1. Install a shunt connector on Pin 1 of J4 and TX/BOOT of J4, tying both pins together.
2. Connect the USB connector and let the Host PC machine enumerate the USB connection.
3. Enable SW1 to the upward state to power the SL869 receiver.
4. Launch the TESEOII X-Loader and set the selections as shown in Figure 11.

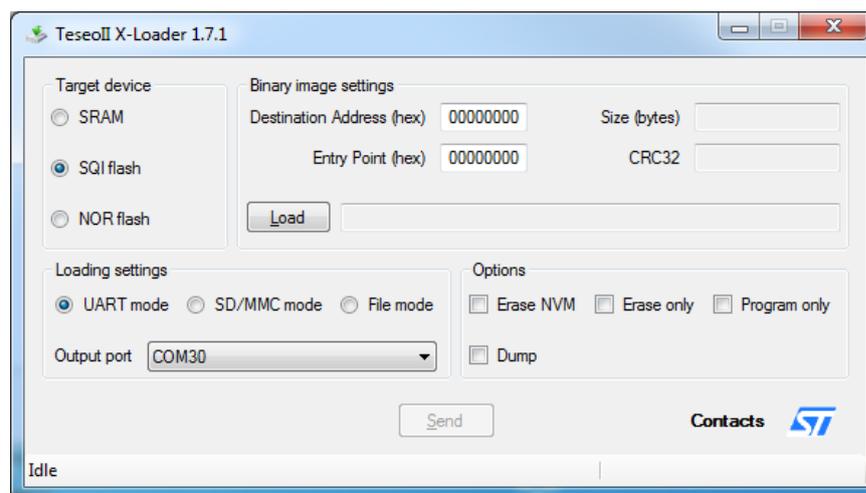


Figure 12 TeseoII X-Loader

5. Click on the Load button then locate and select the provided software by Telit
6. After selecting the correct Output port for the connected receiver (Look under Device Manager for possible COM connection), click on Send to program the device.



