

Jupiter SL869 EVK User Guide

1VV0301004 Rev.3 – 2013-04-18



Usage and Disclosure Restrictions

License Agreements

The software described in this document is the property of Telit and its licensors. It is furnished by express license agreement only and may be used only in accordance with the terms of such an agreement.

Copyrighted Materials

Software and documentation are copyrighted materials. Making unauthorized copies is prohibited by law. No part of the software or documentation may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, without prior written permission of Telit

High Risk Materials

Components, units, or third-party products used in the product described herein are NOT fault-tolerant and are NOT designed, manufactured, or intended for use as on-line control equipment in the following hazardous environments requiring fail-safe controls: the operation of Nuclear Facilities, Aircraft Navigation or Aircraft Communication Systems, Air Traffic Control, Life Support, or Weapons Systems (High Risk Activities"). Telit and its supplier(s) specifically disclaim any expressed or implied warranty of fitness for such High Risk Activities.

Trademarks

TELIT and the Stylized T Logo are registered in Trademark Office. All other product or service names are the property of their respective owners.

Copyright © Telit Communications S.p.A. 2012.



Contents

1.	Introduction	7
1.1.	Scope	7
1.2.	Audience	7
1.3.	Contact Information, Support.....	7
1.4.	Text Conventions	8
1.5.	Related Documents	8
2.	Preparing for the SL869 EVK	9
2.1.	What is Necessary	9
2.1.1.	Installing the USB Drivers.....	9
3.	SL869 Evaluation Kit	10
3.1.	What's in the Box.....	10
3.2.	Jupiter Evaluation Board.....	11
4.	Step-by-Step: First Time Running the SL869 Evaluation Board.....	12
4.1.	Step-by-Step: First Time Connection	12
5.	TelitView	13
5.1.	Main Interface.....	13
5.2.	Connecting to the EVK.....	13
5.2.1.	Main Menu Bar.....	13
5.2.2.	Main Tool Bar.....	13
5.2.3.	'Connect to GPS' Window	14
5.3.	TelitView Tabular View	14
5.3.1.	Front Panel Status.....	15
5.3.2.	Scatter Plot	15
5.3.3.	NMEA Monitor.....	16
5.4.	User Menu Commands Manager	16
6.	Flashing Firmware with X-Loader.....	17
6.1.	Flashing Requirements	17
6.2.	Flashing Instructions.....	17



- 7. **Communication Interface..... 18**
 - 7.1. Commands..... 18
 - 7.2. Messages Description 18
 - 7.3. Commands Description..... 19
- 8. **Evaluation Kit Schematic20**
- 9. **Document History21**



1.4. Text Conventions



Danger – This information MUST be followed or catastrophic equipment failure or bodily injury may occur.



Caution or Warning – Alerts the user to important points about integrating the module, if these points are not followed, the module and end user equipment may fail or malfunction.



Tip or Information – Provides advice and suggestions that may be useful when integrating the module.

All dates are in ISO 8601 format, i.e. YYYY-MM-DD.

1.5. Related Documents

- [Telit_Jupiter_SL869_Product_Description](#)
- [Telit_SL869_Software User_Guide](#)



NOTE:

- ***To prevent ESD and EOS damage, a properly grounded ESD wrist strap should be worn when working inside the EVK***
- ***Do not alter shunt connectors while USB power is applied***
- ***Do not short the RF signal to ground if antenna voltage is installed. Damage to the EVK may occur.***

Always follow ESD safety precautions when utilizing the SL869 evaluation kit. For additional information on the SL869, ask your local sales representative for additional documentation.



3.2. Jupiter Evaluation Board

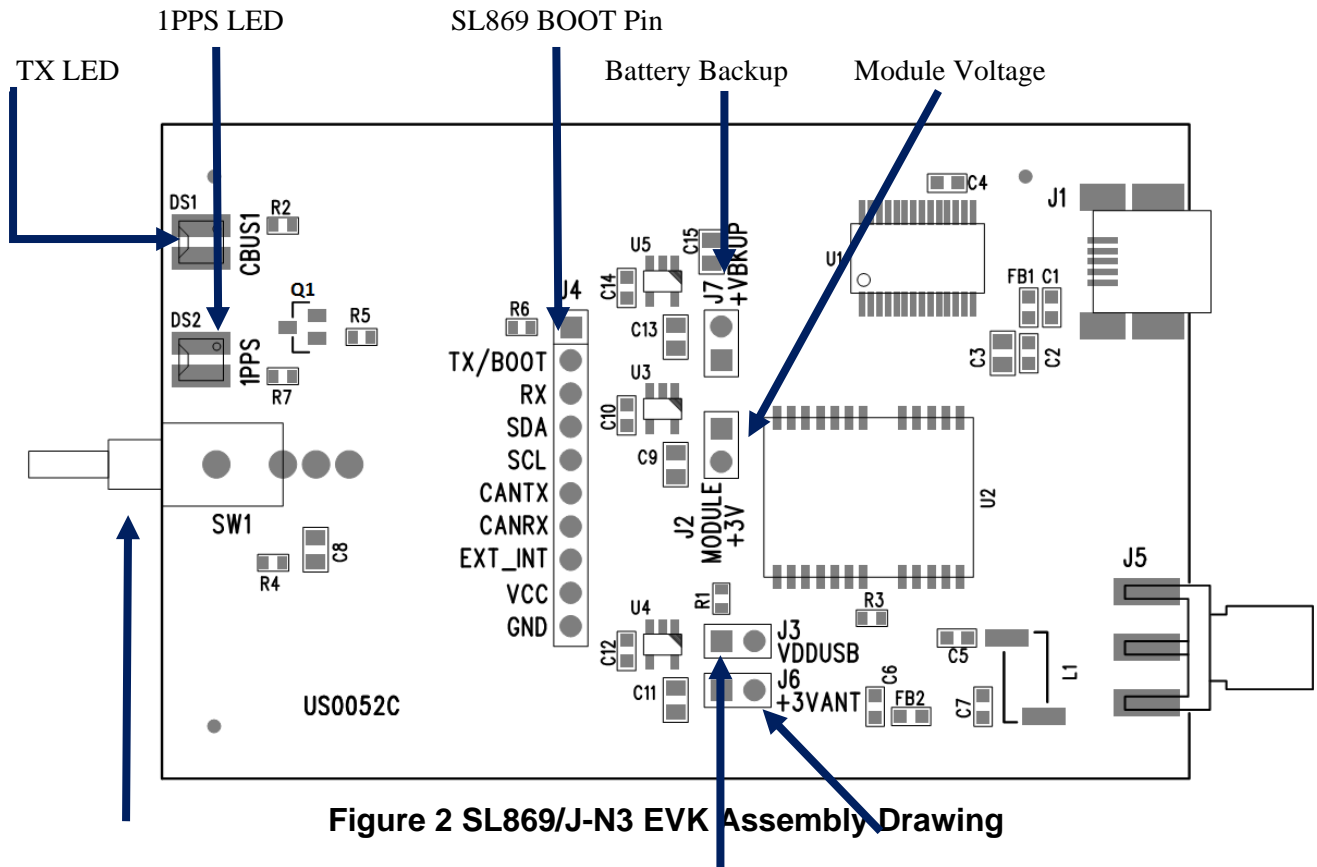


Figure 2 SL869/J-N3 EVK Assembly Drawing

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.

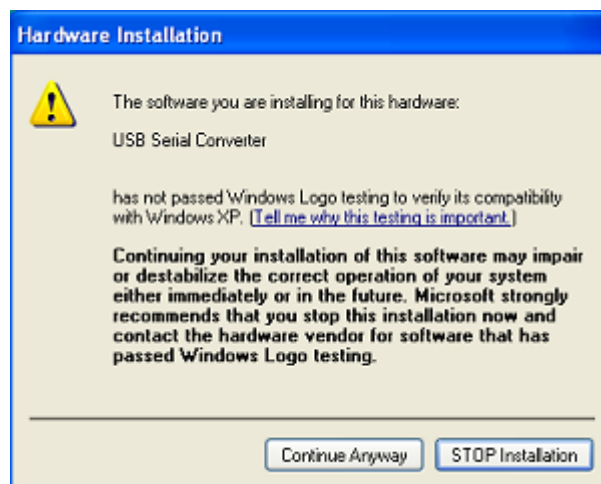


Figure 3 USB installation, select "Continue Anyway" to proceed

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.

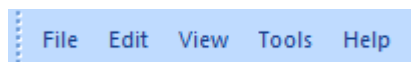


Figure 4 Main Menu Bar



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

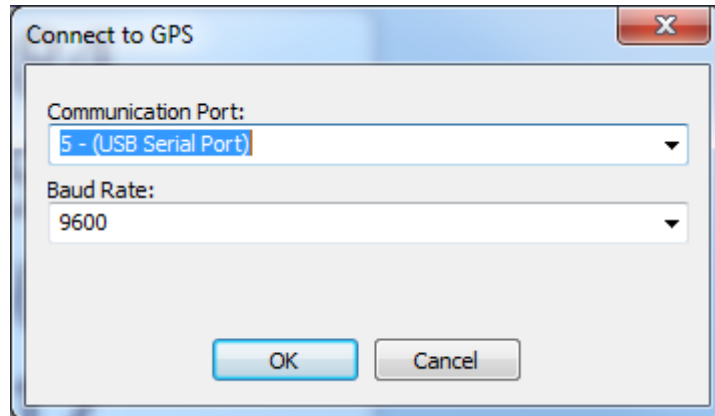


Figure 6 Connect to GPS Window

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.

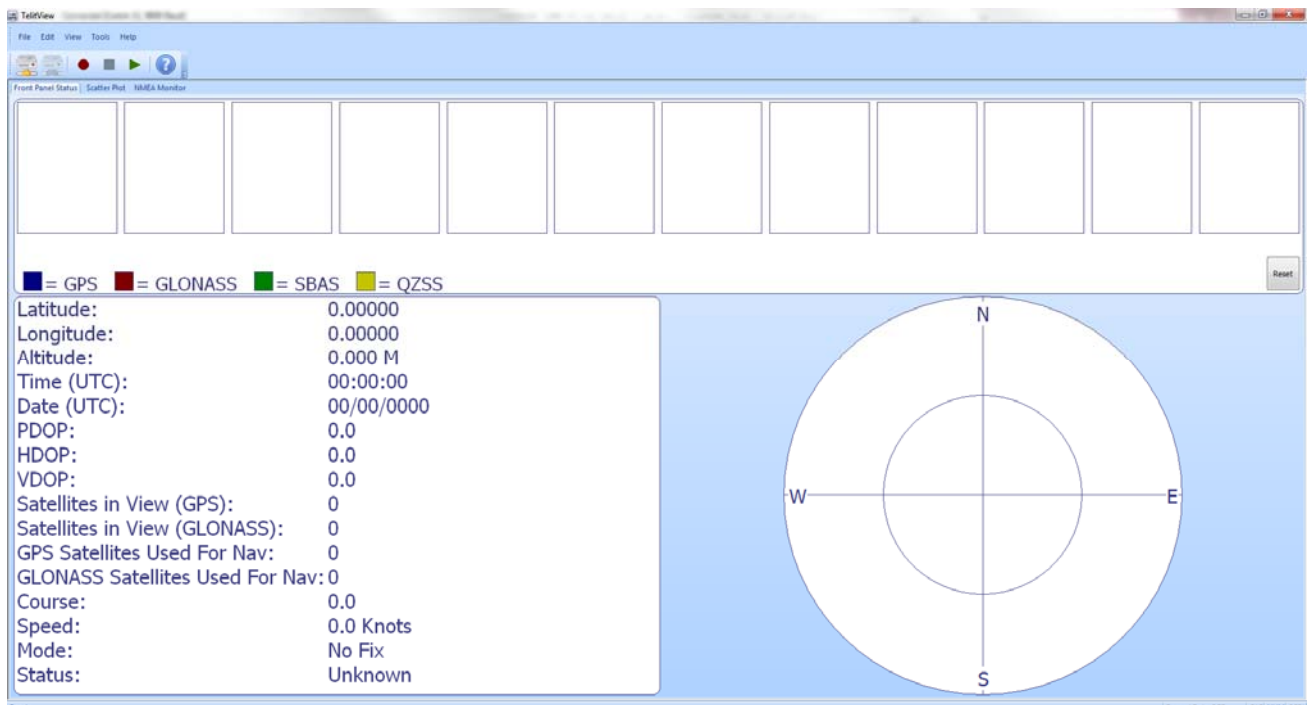


Figure 7 TelitView Application



5.3.3. NMEA Monitor

The NMEA Monitor displays the NMEA output of the receiver. The user can also type in commands in the Transmit toolbar.

TelitView automatically adds a checksum to the command being sent.

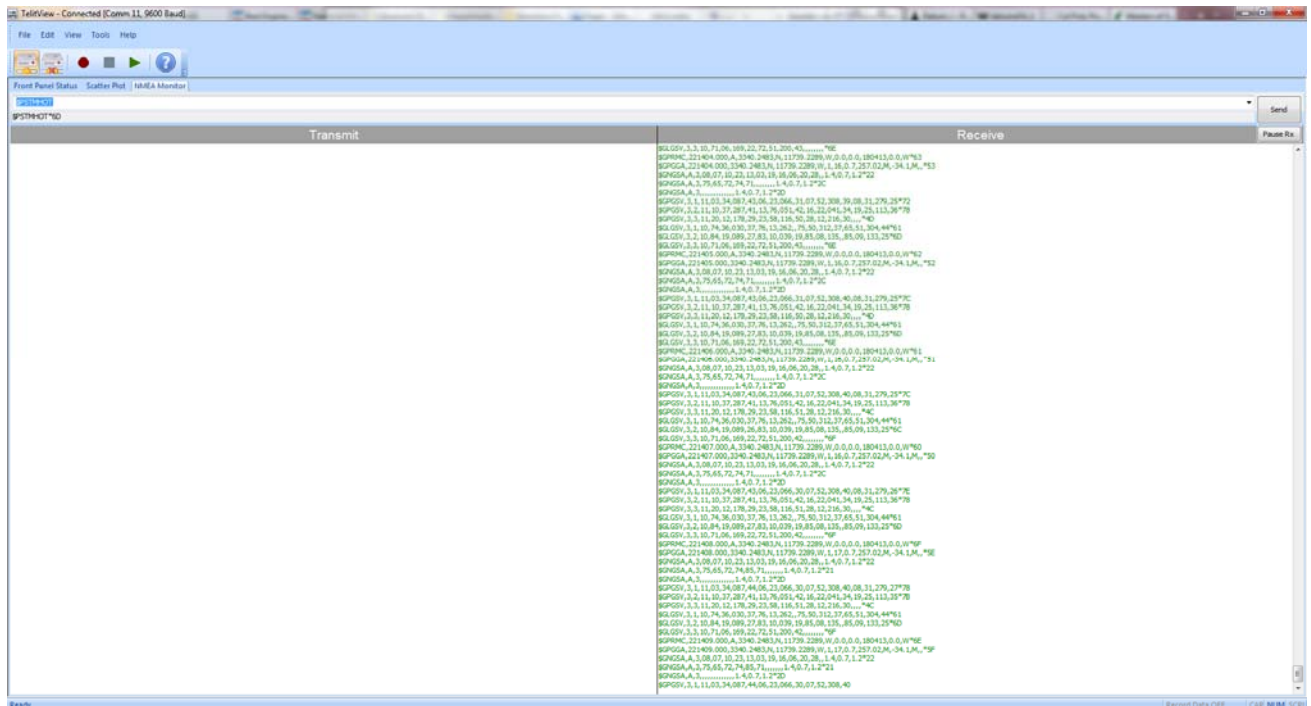


Figure 10 NMEA Monitor Tab

5.4. User Menu Commands Manager

The TelitView 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.’

The User Menu Command Manager is accessible through the “Tools” selection on the **Main Menu Bar**.

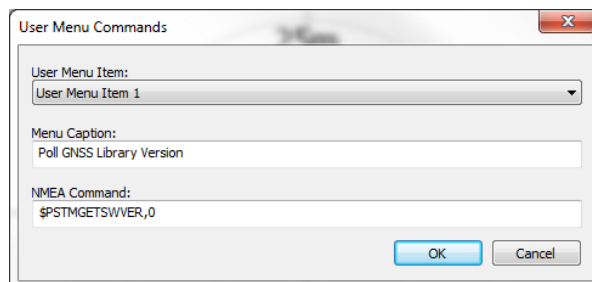


Figure 11 User Menu Command Manager



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 (Pin2) 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.

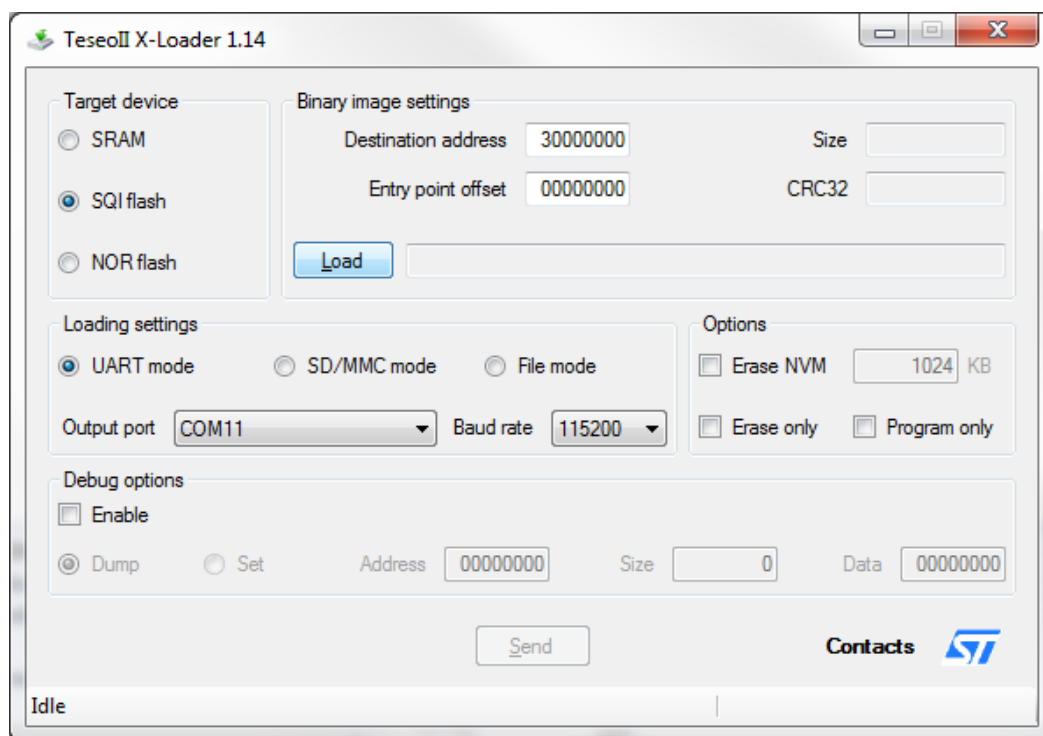
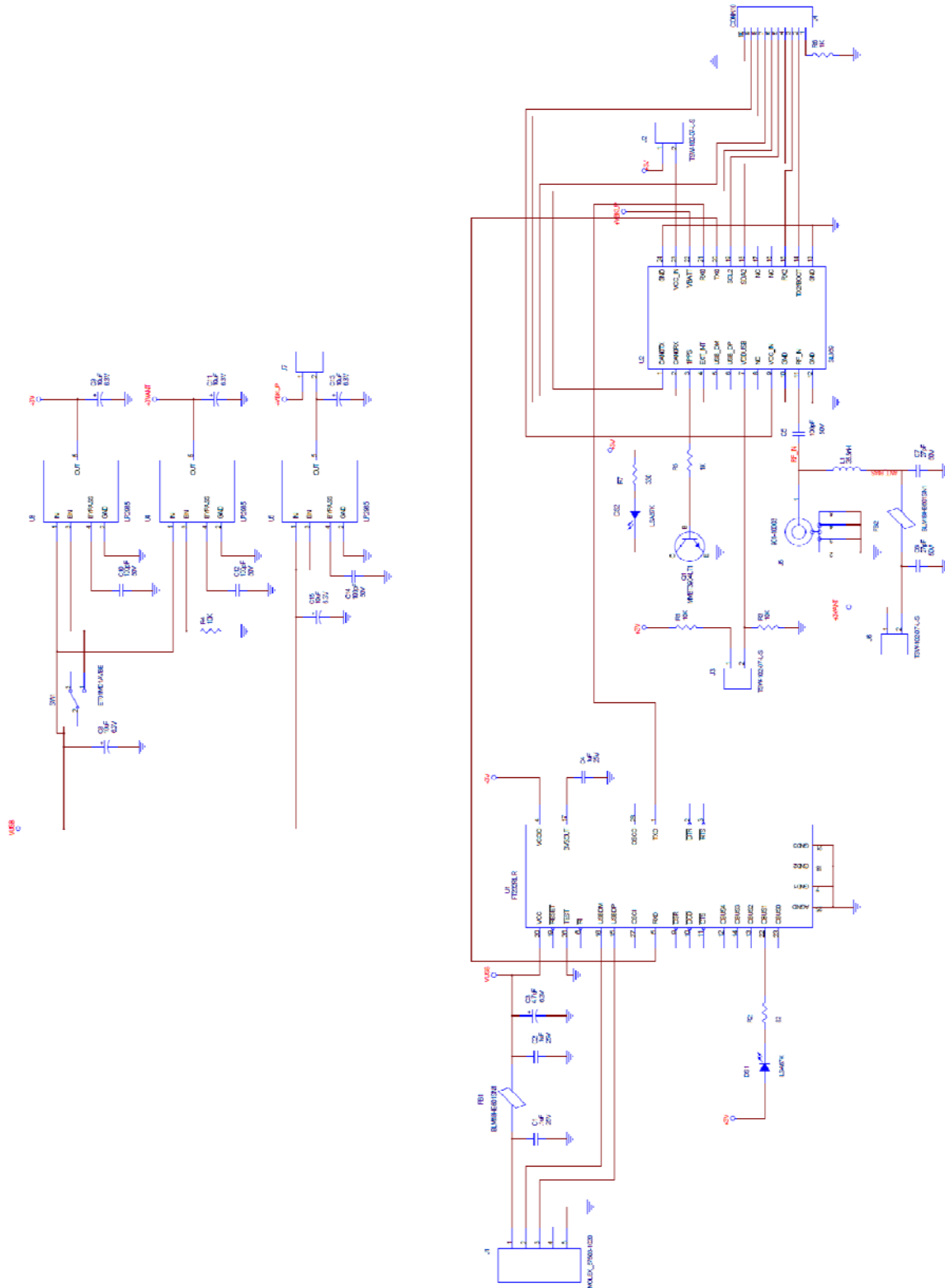


Figure 12 X-Loader

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.



8. Evaluation Kit Schematic



9. Document History

Revision	Date	Changes
0	2012-03-22	Draft issue
1	2012-04-02	Add Flashing and Messaging sections
2	2012-06-11	Updated TelitView section for v2.0 Build 1001
3	2013-04-18	Updated TelitView section for v3.0 Build 1008, update Section 7.3, and add EVK schematics.



X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Adhesive Tapes](#) category:

Click to view products by [Telit](#) manufacturer:

Other Similar products are found below :

[PF24.0W](#) [4718](#) [4516-1/4x36](#) [56-YELLOW-34"X72YD](#) [00-021200-13972-7](#) [021200-64630](#) [60 TAPE \(1"\)](#) [62-GRAY-12"X36YD](#) [62-GRAY-1"X36YD](#) [69-1"X36YD](#) [764-1"x36yd-Red](#) [764-1"x36yd-White](#) [PG ASSY](#) [926-1/4X18YD](#) [967454-1](#) [1194-14"X36YD](#) [1181 19MM X 16,5 METERS](#) [1182-7.7X10](#) [1245-34"X18YD](#) [1267](#) [130C-1X15FT](#) [130-1x10FT](#) [1345-3/8x18yrd](#) [1380-2"X8"](#) [E39-RS1-CA](#) [1900-48mm](#) [22-1/2X36YD](#) [2229-P-2-1/2x3-3/4](#) [88-SUPER-34X44FT](#) [890103N001](#) [2670](#) [SJ3527N-Black-1.5"x50yd](#) [EVK-TA-TM047NBH01](#) [AD-UCUSB-DCAUD-SPL](#) [20-1"X60YDS](#) [2020-18mmx55m](#) [H150](#) [3900-Blue](#) [3939-24mmx55m](#) [396-1"x36yd](#) [4016-34"x36yd](#) [4462W-12"x72yd](#) [44-TAN-14"X90YD](#) [4504-34x18](#) [471-Trans-1"x36yd-Bulk](#) [5414 34X36](#) [C-22](#) [35-Gray-1/2](#) [371-Tan-48mmx50m](#) [4008-12"X36YD](#)