



EVB-LIV3F

Teseo-LIV3F Evaluation Board Quick Start Guide



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Introduction to EVB-LIV3F

- The **EVB-LIV3F** evaluation board is a complete standalone evaluation platform for Teseo-LIV3F Tiny GNSS module
- The **Teseo-LIV3F** module is an easy-to-use Global Navigation Satellite System (GNSS) standalone module, embedding Teseo III single die stand-alone positioning receiver IC working on multiple constellations (GPS, GLONASS, Beidou, Galileo, QZSS)



Top view



Front panel



Rear panel

EVB-LIV3F – Front and Rear panels

- On/Off Switch button
- PWR Red LED
- Reset button
- PPS Green LED

Front panel



Rear panel



- Current measure connector
- SMA Antenna connector
- I2C connector
- UART/USB connector

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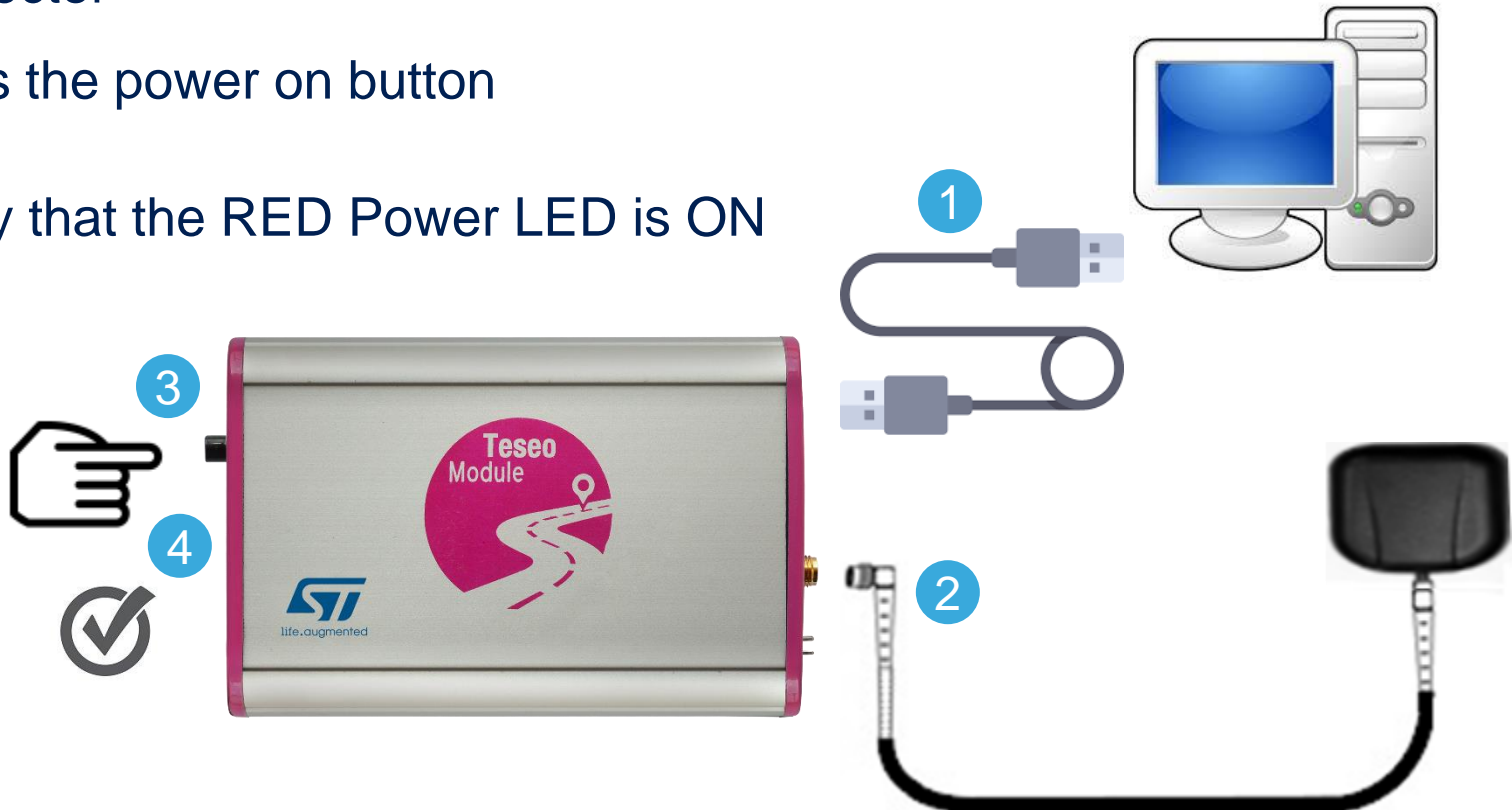
4

Documents & related resources



Connect and start EVB-LIV3F

- 1 Connect the USB cable between PC USB and the EVB-LIV3F UART port
- 2 Connect GNSS Antenna to the SMA input connector
- 3 Press the power on button
- 4 Verify that the RED Power LED is ON



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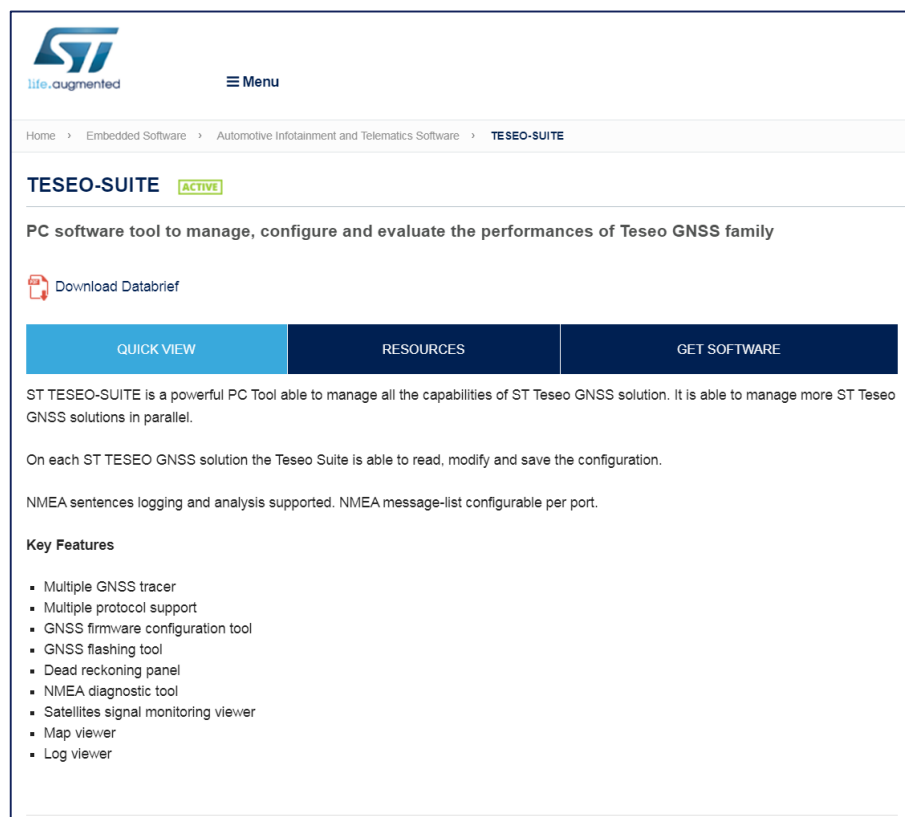
Documents & related resources



Install Teseo Suite Light and VCP Driver

The **Teseo-Suite Light** is a powerful PC Tool able to manage the EVB-LIV3F evaluation board

- Download and install the **Teseo Suite Light** from www.st.com
- Download and install the **FTDIchip VCP Driver** from www.ftdichip.com

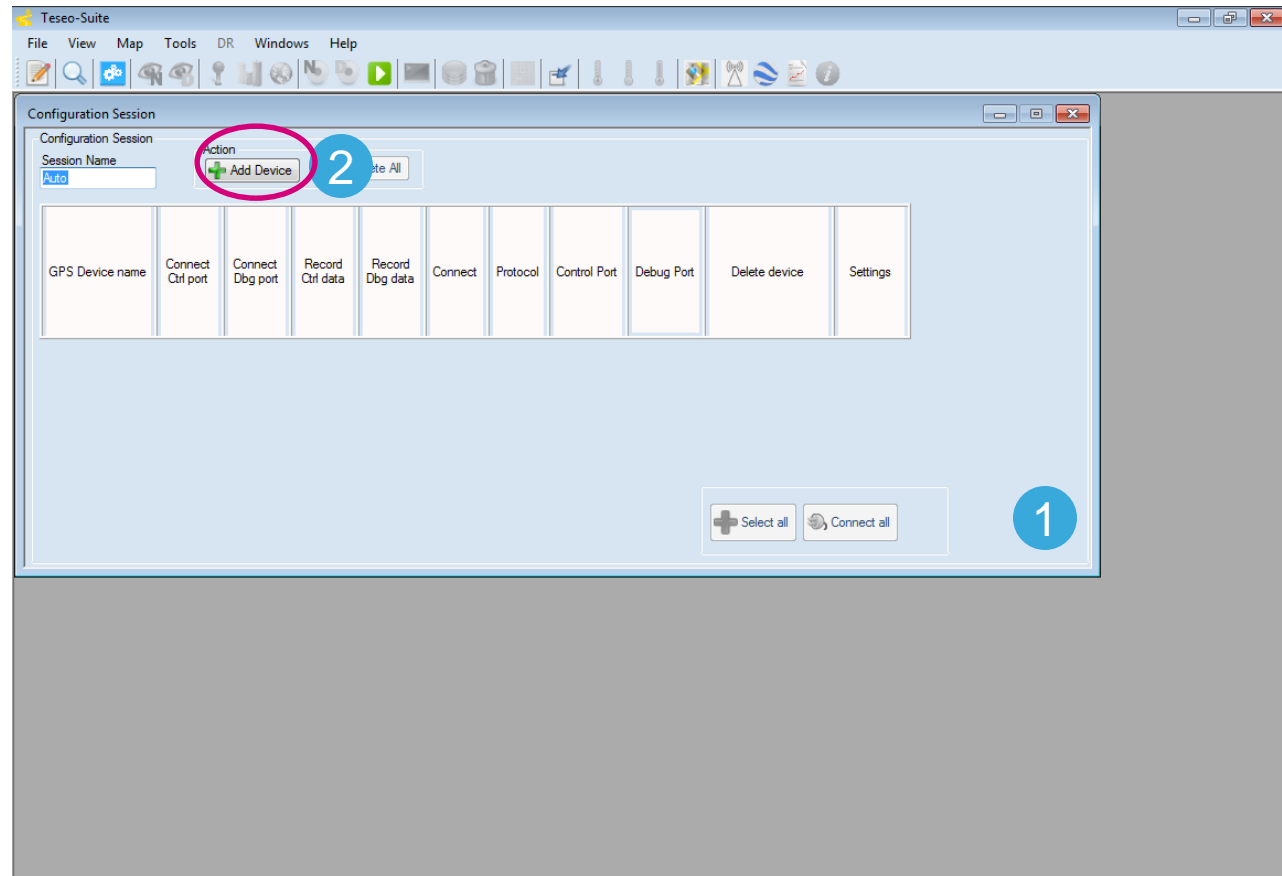


The screenshot shows the ST Teseo-Suite product page. At the top left is the ST logo with the tagline 'life.augmented'. To the right is a 'Menu' icon. Below the logo is a breadcrumb trail: 'Home > Embedded Software > Automotive Infotainment and Telematics Software > TESEO-SUITE'. The main heading is 'TESEO-SUITE' with a green 'ACTIVE' badge. Below this is a description: 'PC software tool to manage, configure and evaluate the performances of Teseo GNSS family'. There is a 'Download Databrief' link with a document icon. A navigation bar contains three buttons: 'QUICK VIEW' (highlighted in blue), 'RESOURCES', and 'GET SOFTWARE'. The main content area contains the following text: 'ST TESEO-SUITE is a powerful PC Tool able to manage all the capabilities of ST Teseo GNSS solution. It is able to manage more ST Teseo GNSS solutions in parallel. On each ST TESEO GNSS solution the Teseo Suite is able to read, modify and save the configuration. NMEA sentences logging and analysis supported. NMEA message-list configurable per port.' Below this is a 'Key Features' section with a bulleted list: Multiple GNSS tracer, Multiple protocol support, GNSS firmware configuration tool, GNSS flashing tool, Dead reckoning panel, NMEA diagnostic tool, Satellites signal monitoring viewer, Map viewer, and Log viewer.



Teseo Suite Light - Start

- 1 During the application start-up, the **Configuration Session** panel is shown
- 2 Click the '**Add Device**' button to add a new entry





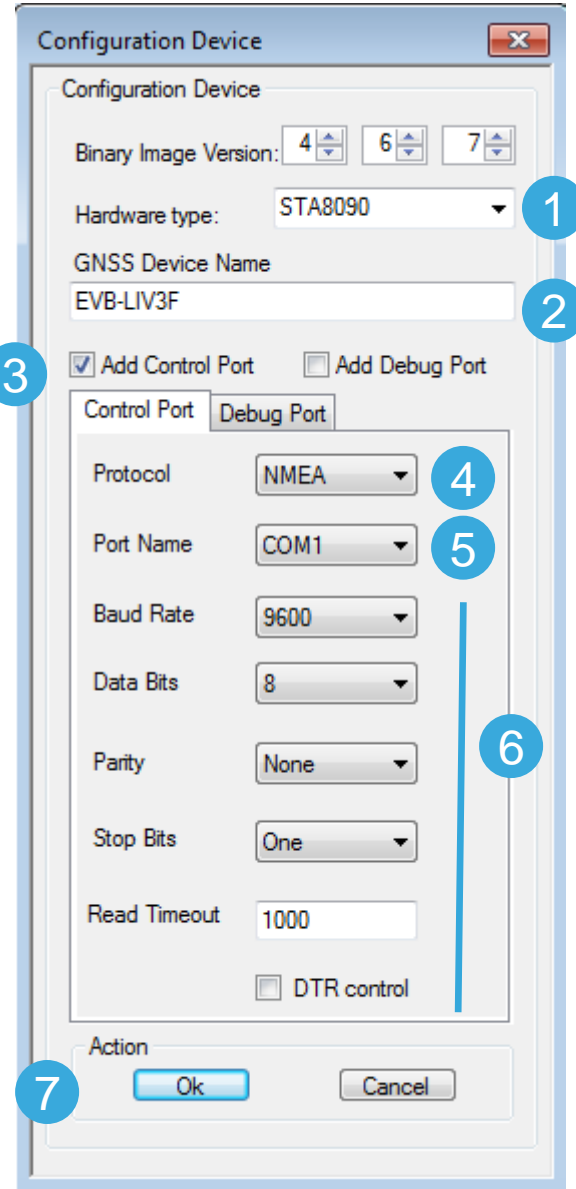
Teseo Suite Light – Configuration Device

- 1 Set the *Hardware type*: **STA8090**
- 2 Set the *GNSS Device Name*: **EVB-LIV3F**
- 3 Enable *Add Control Port*
- 4 Set the *Protocol*: **NMEA**
- 5 Set the *Port Name*: according to the discovered on the PC

6 Configure the port as following table:

Baud rate	Data bits	Stop Bits	Parity	Handshake
9600 bps	8 Bits	1 Bit	None	None

7 Click the *Ok* button





Teseo Suite Light – Connect the device

- 1 In the **Configuration Session** panel a new entry (row) is shown
- 2 Enable **Connect Ctrl port**
- 3 Click the **Connect** button

The screenshot shows the Teseo Suite software interface. The main window is titled "Teseo-Suite" and has a menu bar (File, View, Map, Tools, DR, Windows, Help) and a toolbar. The "Configuration Session" panel is open, showing a table with columns for device configuration. A new entry "EVB-LIV3F" is visible in the table. The "Connect Ctrl port" checkbox is checked, and the "Connect" button is highlighted with a blue circle and the number 3. The "Add Device" button is highlighted with a blue circle and the number 2. The "Delete device" button is highlighted with a blue circle and the number 1. The sidebar on the right shows the "EVB-LIV3F" data panel with fields for Latitude, Longitude, Altitude, Fix Mode, Sats used, PDOP, HDOP, 2D Acc., and 3D Acc.

GPS Device name	Connect Ctrl port	Connect Dbg port	Record Ctrl data	Record Dbg data	Connect	Protocol	Control Port	Debug Port	Delete device	Settings
EVB-LIV3F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		NMEA	COM1			



Teseo Suite Light – device working

- 1 In the summary panel, the GNSS EVB-LIV3F state is reported
- 2 Click on the NMEA output window to inspect the NMEA stream

The screenshot shows the Teseo-Suite software interface. The main window is titled 'Teseo-Suite' and has a menu bar with 'File', 'View', 'Map', 'Tools', 'DR', 'Windows', and 'Help'. Below the menu bar is a toolbar with various icons. A red circle highlights the 'NMEA' icon in the toolbar, with a blue circle containing the number '2' next to it. The main area is divided into two panels. The left panel is titled 'Configuration Session' and contains a 'Session Name' field with 'Auto' entered. Below this is a table with columns for 'GPS Device name', 'Connect Ctrl port', 'Connect Dbg port', 'Record Ctrl data', 'Record Dbg data', 'Connect', 'Protocol', 'Control Port', 'Debug Port', 'Delete device', and 'Settings'. The row for 'EVB-LIV3F' has 'NMEA' in the 'Protocol' column and 'COM5' in the 'Control Port' column. A red circle highlights the 'NMEA' text in the table, with a blue circle containing the number '1' next to it. The right panel is titled 'EVB-LIV3F' and displays various data points: Latitude 0.0000, Longitude 0.0000, Altitude 82.00 m, Fix Mode NO FIX, Sats used 0, PDOP 0, HDOP 99, 2D Acc. 4710598.36, and 3D Acc. 4710598.36. A blue circle with the number '1' is placed over the 'Longitude' value.

GPS Device name	Connect Ctrl port	Connect Dbg port	Record Ctrl data	Record Dbg data	Connect	Protocol	Control Port	Debug Port	Delete device	Settings
EVB-LIV3F	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		NMEA	COM5			

EVB-LIV3F	
Latitude	0.0000
Longitude	0.0000
Altitude	82.00 m
Fix Mode	NO FIX
Sats used	0
PDOP	0
HDOP	99
2D Acc.	4710598.36
3D Acc.	4710598.36



Teseo Suite Light – Inspect Device

- 1 The NMEA Decoding panel is shown
- 2 The NMEA Stream can be seen and inspect

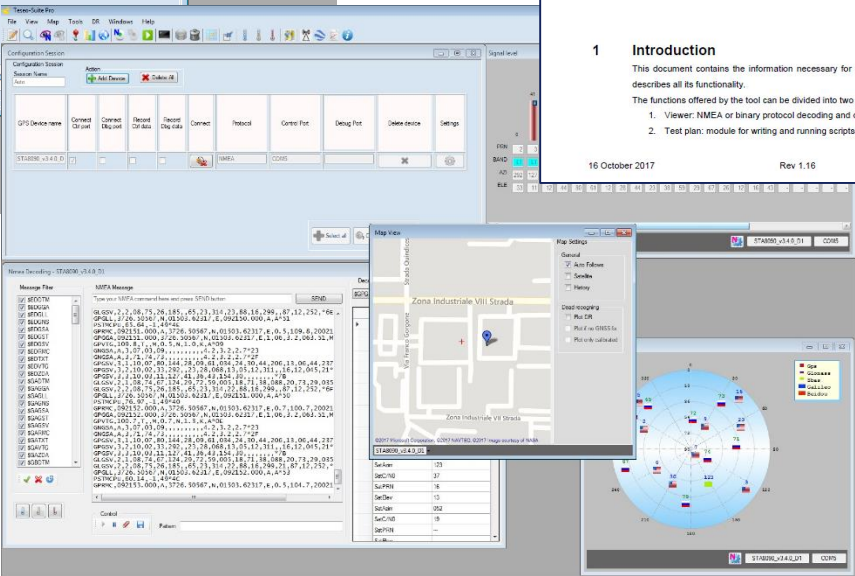
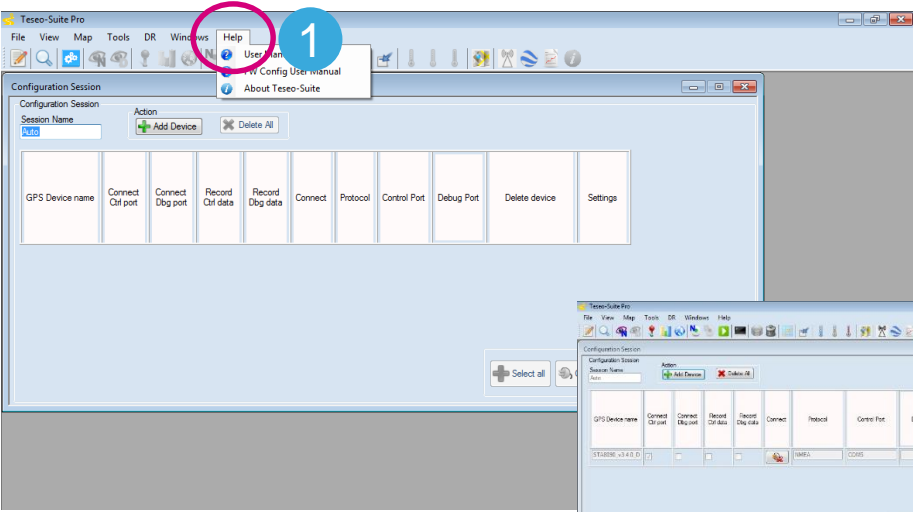
The screenshot shows the 'Nmea Decoding - EVB-LIV3F' application window. On the left, a 'Message Filter' panel lists various NMEA sentence types with checkboxes, including \$BDDTM, \$BDGGA, \$BDGLL, \$BDGNS, \$BDGSA, \$BDGST, \$BDGVS, \$BDRMC, \$BDTXT, \$BDVTG, \$BDZDA, \$GADTM, \$GAGGA, \$GAGLL, \$GAGNS, \$GAGSA, \$GAGST, \$GAGSV, \$GARMC, \$GATXT, \$GAVTG, \$GAZDA, and \$GBDTM. The main 'NMEA Message' area displays a stream of NMEA sentences, with a blue circle '2' highlighting a portion of the text. At the bottom, there are control buttons for play, pause, stop, and a 'Pattern' input field. On the right, a 'Decoding' panel shows a dropdown menu set to '\$BDDTM' and a checked box for 'Follow last frame received'. Below this is a table with 'Label' and 'Value' columns. A blue circle '1' is positioned at the bottom right of the interface.

Label	Value
Local datum code	---
Local datum code ID	---
Latitude offset	---
N/S	---
Longitude offset	---
E/W	---
Altitude offset	---
Reference datum code	---



Teseo Suite Light – Extra features

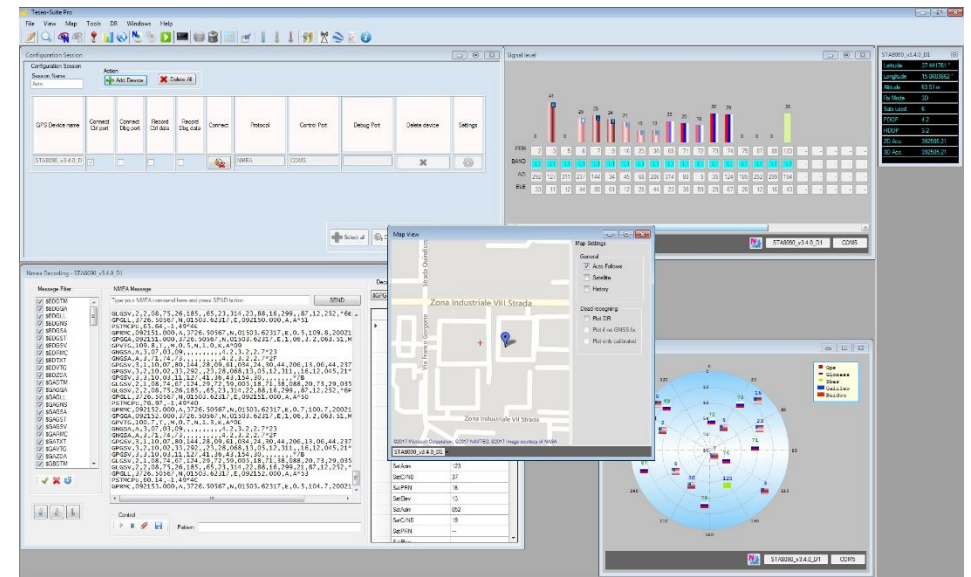
- 1 Click *Help menu* to access User-Manual
- 2 User-Manual reports all information needed





Enjoy with EVB-LIV3F

Now you can enjoy the **EVB-LIV3F** and explore all its features with the **Teseo-Suite Light**



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Documents & related resources

All documents are available on: www.st.com

- **Teseo-LIV3F: Webpage**
 - Data-sheet
 - Hardware User Manual
 - Software User Manual
- **EVB-LIV3F: Webpage**
 - Datasheet
 - User Manual
 - Quick Start Guide
- **Teseo Suite Light: Webpage**
 - Datasheet
 - Install program

Home > Positioning > GNSS Modules > Teseo-LIV3F

Teseo-LIV3F

Tiny GNSS module

Download Datasheet

Technical Documentation

Product Specifications		
Description	Version	Size
DS12162 Tiny GNSS module	2.0	630 KB

User Manuals		
Description	Version	Size
UM2231 Teseo-LIV3F GNSS Module - Hardware Manual	1.0	497 KB
	2.0	2 MB

Home > Embedded Software > Automotive Infotainment and Telematics Software > TESEO-SUITE

TESEO-SUITE (Active)

PC software tool to manage, configure and evaluate the performances of Teseo GNSS family

Download Databrief

QUICK-VIEW RESOURCES GET SOFTWARE

ST TESEO-SUITE is a powerful PC Tool able to manage all the capabilities of ST Teseo GNSS solution. It is able to manage more ST Teseo GNSS solutions in parallel.

On each ST TESEO GNSS solution the Teseo Suite is able to read, modify and save the configuration.

NMEA sentences logging and analysis supported. NMEA message-list configurable per port.

Key Features

- Multiple GNSS tracer
- Multiple protocol support
- GNSS firmware configuration tool
- GNSS flashing tool
 - OADs reordering panel
- NMEA diagnostic tool
- Satellites signal monitoring viewer
- Map viewer
- Log viewer

RESOURCES

Quick Links

Technical Documentation

Product Specifications		
Description	Version	Size
DS3224 PC GUI software to control, configure and performance analyze of Teseo GNSS family	1.0	164 KB

Legal

License Agreement		
Description	Version	Size
SLA0056 Software license agreement	1.0	50 KB