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EVB-LIV3F

Teseo-LIV3F Evaluation Board
Quick Start Guide





Quick start guide - Contents

1

Introduction to EVB-LIV3F

2

Connect and start EVB-LIV3F

3

Teseo-Suite configuration and startup

4

Documents & related resources



Quick start guide - Contents

1

Introduction to EVB-LIV3F

2

Connect and start EVB-LIV3F

3

Teseo-Suite configuration and startup

4

Documents & related resources



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) stand-alone 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



Quick start guide - Contents

1

Introduction to EVB-LIV3F

2

Connect and start EVB-LIV3F

3

Teseo-Suite configuration and startup

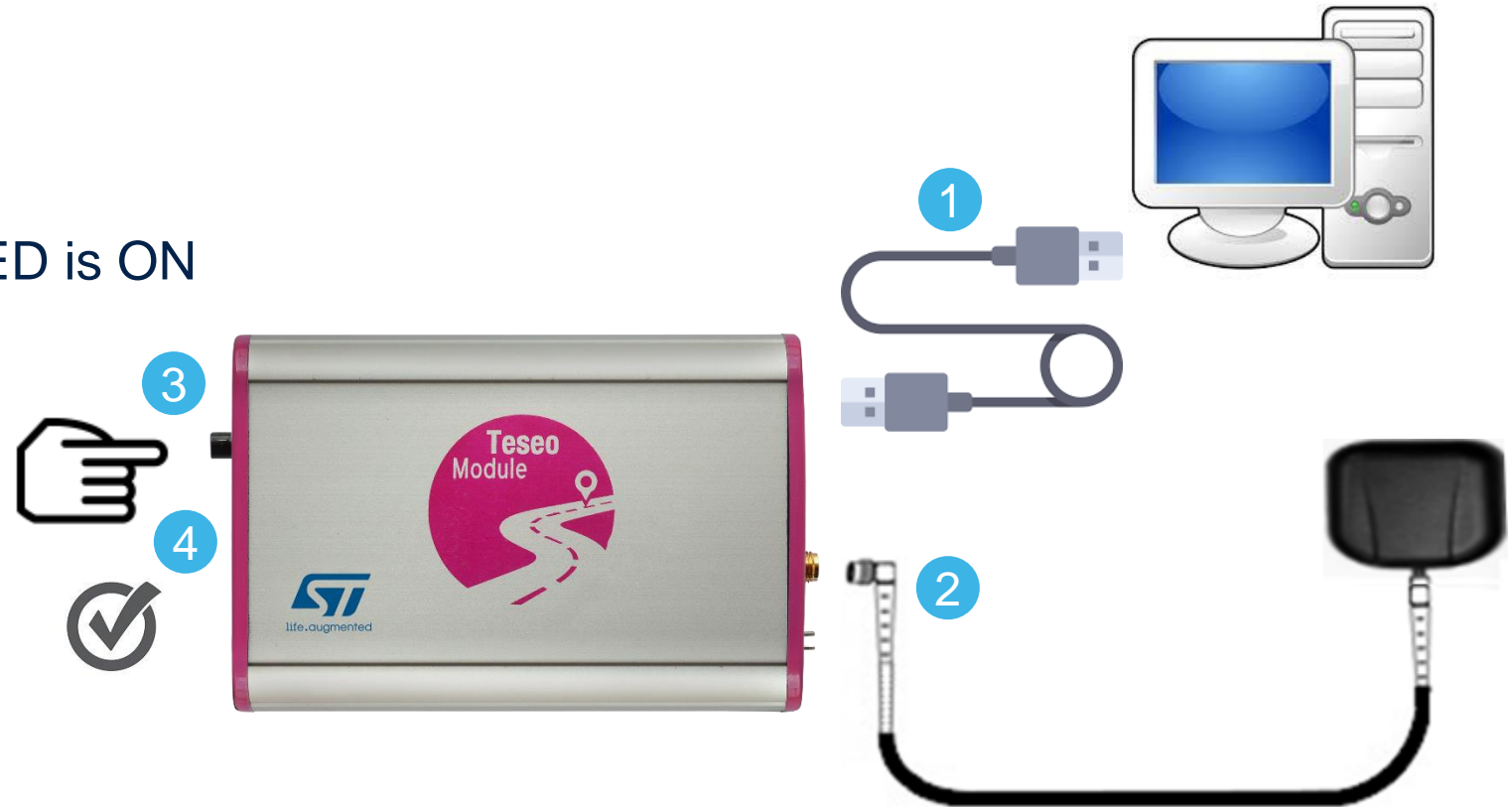
4

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





Quick start guide - Contents

1

Introduction to EVB-LIV3F

2

Connect and start EVB-LIV3F

3

Teseo-Suite configuration and startup

4

Documents & related resources



Install Teseo-Suite and VCP driver

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

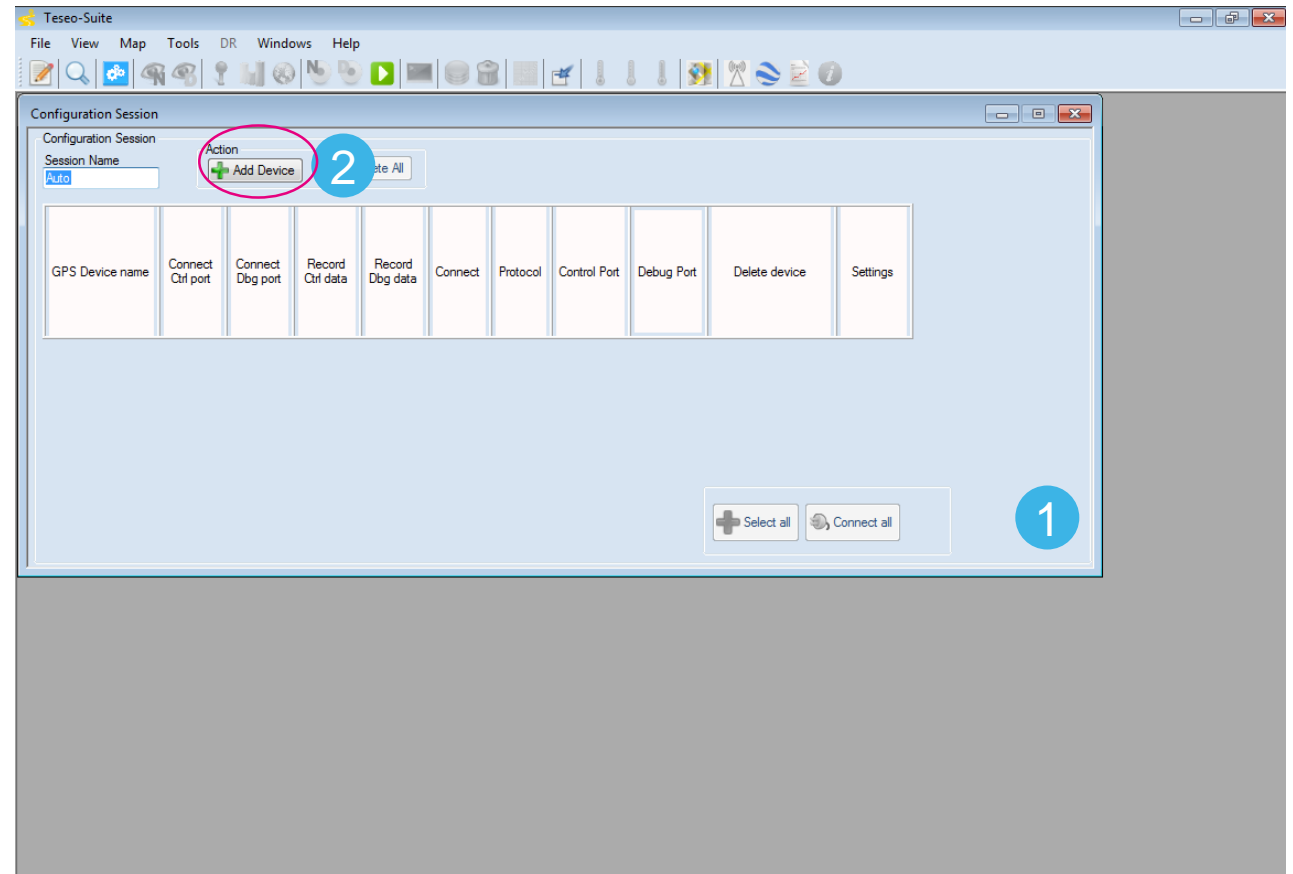
- Download and install the Teseo-Suite from www.st.com
- Download and install the FTDIchip VCP Driver from www.ftdichip.com

The screenshot shows the ST Teseo-Suite product page. At the top left is the ST logo with the tagline 'life.augmented'. A 'Menu' icon is located to the right. 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 sub-heading: 'PC software tool to manage, configure and evaluate the performances of Teseo GNSS family'. There is a 'Download Databrief' link with a PDF 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.' followed by 'On each ST TESEO GNSS solution the Teseo Suite is able to read, modify and save the configuration.' and '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 - Start

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





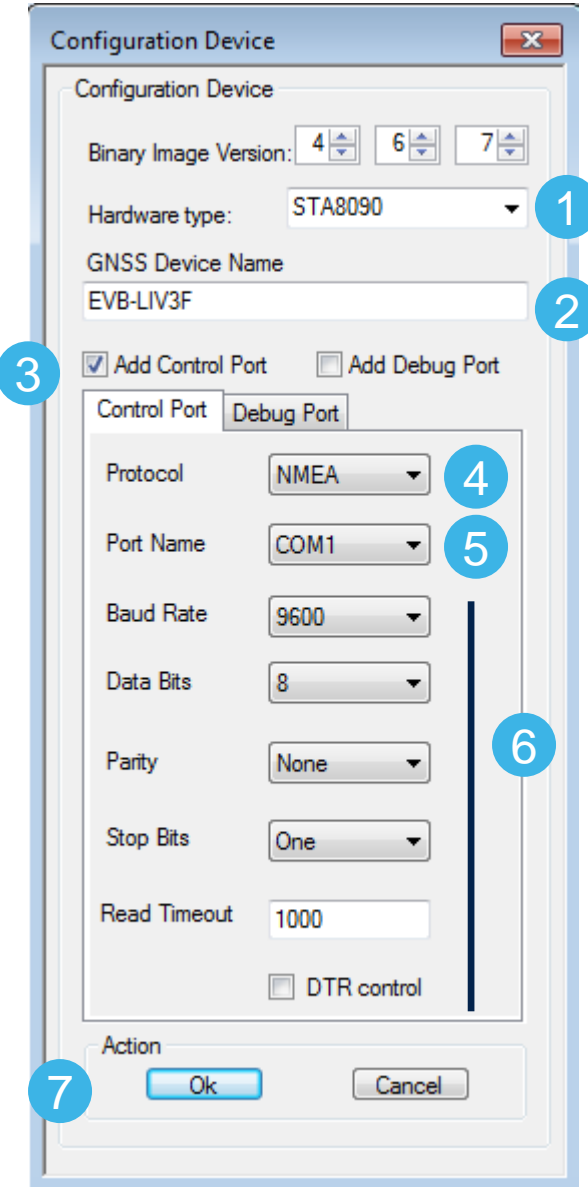
Teseo-Suite – Configuration device

- 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

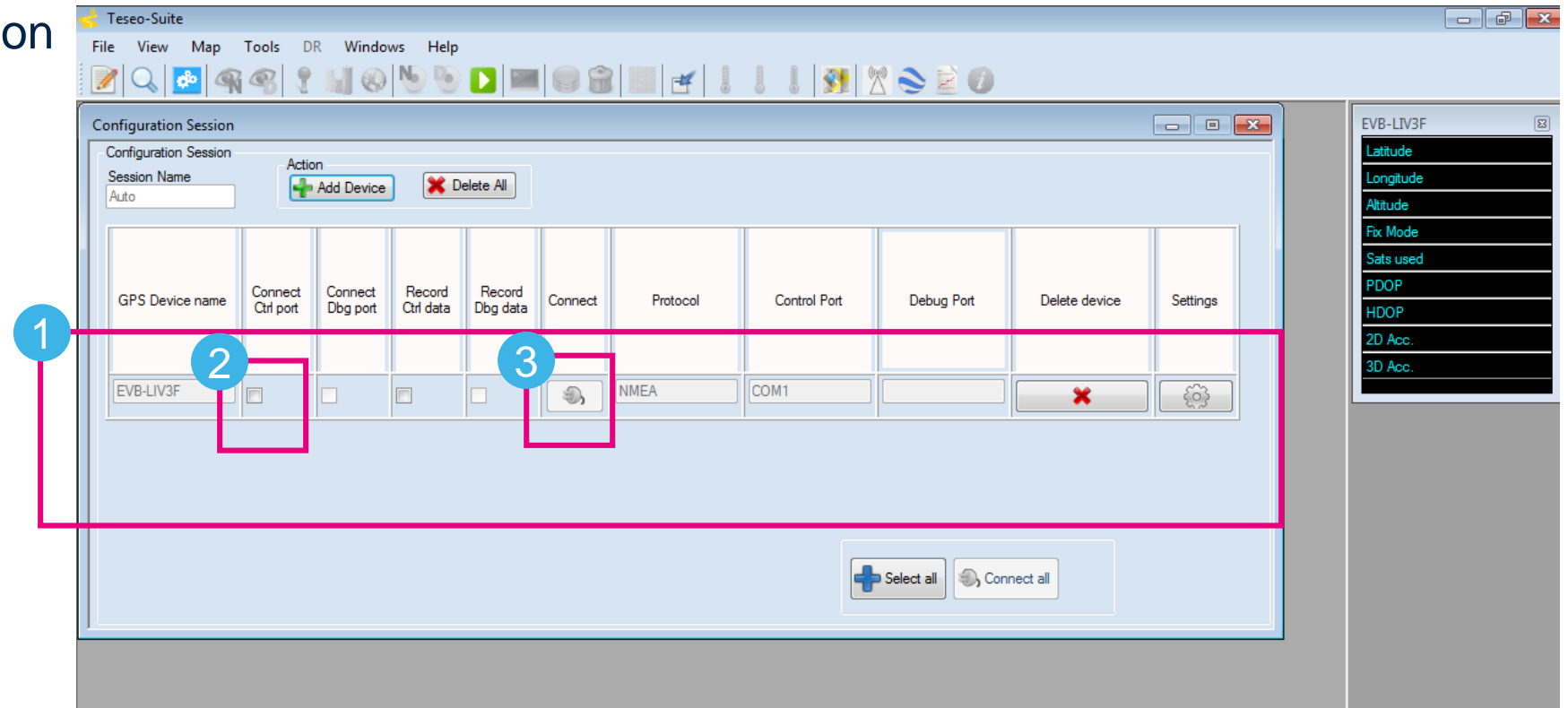
- 7 Click the Ok button





Teseo-Suite – 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





Teseo-Suite – 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 displays the Teseo-Suite software interface. The main window is titled "Configuration Session" and contains a table of device configurations. A red circle labeled "2" highlights the "NMEA" protocol entry for the "EVB-LIV3F" device. To the right, a separate window titled "EVB-LIV3F" displays the current GNSS status, highlighted with a red box and labeled "1".

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	000000 °
Longitude	0.000000 °
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 – 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. A blue circle with the number '2' highlights this list. The main area displays a stream of NMEA messages. On the right, a 'Decoding' panel shows a dropdown menu set to '\$BDDTM' and a checked option 'Follow last frame received'. Below this is a table with 'Label' and 'Value' columns. A blue circle with the number '1' highlights this table.

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



Teseo-Suite – Extra features

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

1

2

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Quick start guide - Contents

1

Introduction EVB-LIV3F

2

Connect and start EVB-LIV3F

3

Teseo-Suite configuration and startup

4

Documents & related resources



Documents & related resources

All documents are available on:
www.st.com

- Teseo-LIV3F: [Webpage](#)
 - Data-sheet
 - HW and SW User Manual
- EVB-LIV3F: [Webpage](#)
 - Datasheet
 - User Manual
 - Quick Start Guide
- Teseo Suite: [Webpage](#)
 - Datasheet
 - Install program

Home > Positioning > GNSS Modules > Teseo-LIV3F

Teseo-LIV3F

Tiny GNSS module

[Download Datasheet](#)

Technical Documentation

Product Specifications		
Description	Version	Size
DS12152 Tiny GNSS module	2.0	630 KB

User Manuals		
Description	Version	Size
UM2231 Teseo-LIV3F GNSS Module - Hardware Manual	1.0	497 KB
UM2229 Teseo-LIV3F GNSS Module - Software Manual	2.0	2 MB

Publications and Collaterals

Description	Version	Size
	1.0	701 KB

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

TESEO-SUITE

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
- Dead reckoning 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