



EVB-T3

Teseo III Evaluation Board Quick Start Guide



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Introduction EVB-T3

- The **EVB-T3** evaluation board is a complete standalone evaluation platform for Teseo III GNSS IC receivers
- The **Teseo III** is a single die stand-alone positioning receiver IC Global Navigation Satellite System (GNSS) working on multiple constellations (GPS, GLONASS, Beidou, Galileo, QZSS)



Top view



Front panel



Rear panel



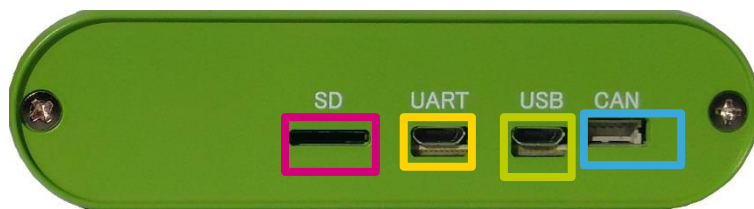
EVB-T3 – Front and Rear panels

- SMA Antenna Connector
- On/Off Switch button
- PWR Red LED
- Reset button
- Fix Green LED
- PPS Green LED
- Antenna Sense LED



Front panel

Rear panel



- uSD slot
- UART connector
- USB connector
- CAN connector

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Connect and start EVB-T3

- 1 Connect the USB cable between the PC USB and the EVB-T3 UART port
- 2 Connect the GNSS Antenna to the SMA input connector
- 3 Press the power on button
- 4 Verify that the Green PPS LED blinks



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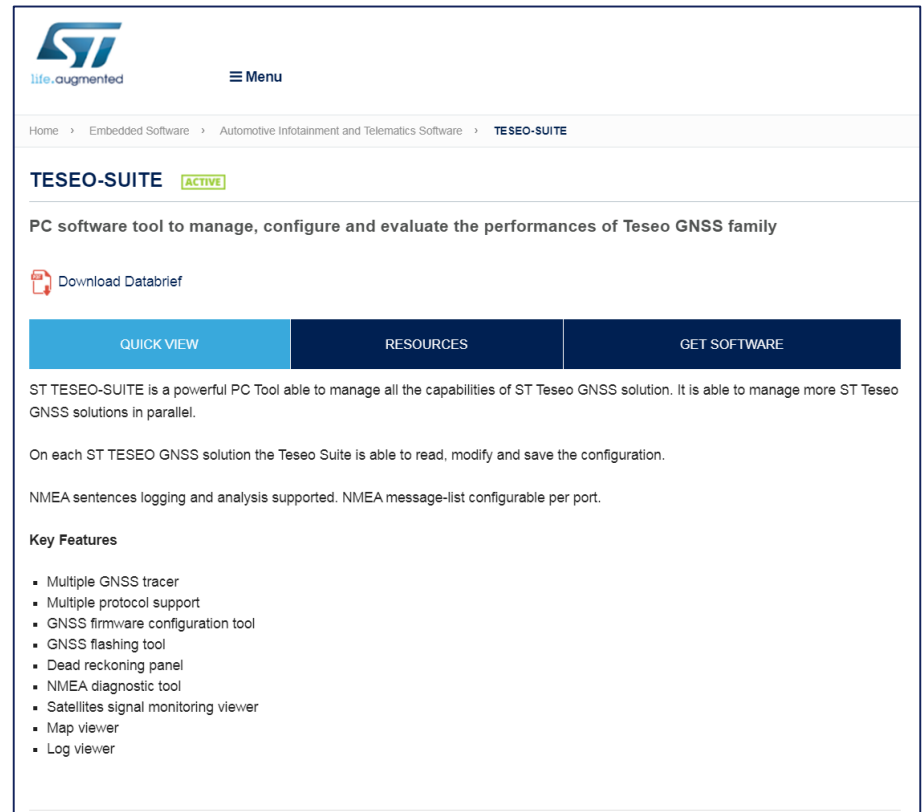
Documents & related resources



Install Teseo Suite Light and VCP Driver

The **Teseo-Suite Light** is a powerful PC Tool able to manage the EVB-T3 evaluation board

- Download and install the **Teseo Suite Light** from www.st.com
- Download and install the **SiliconLabs VCP Driver** from www.silabs.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 PDF icon. A navigation bar contains three buttons: "QUICK VIEW" (highlighted in blue), "RESOURCES", and "GET SOFTWARE". The main content area contains a paragraph describing the tool's capabilities, a paragraph about configuration management, and a "Key Features" section with a bulleted list of features.

ST

life.augmented

Menu

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

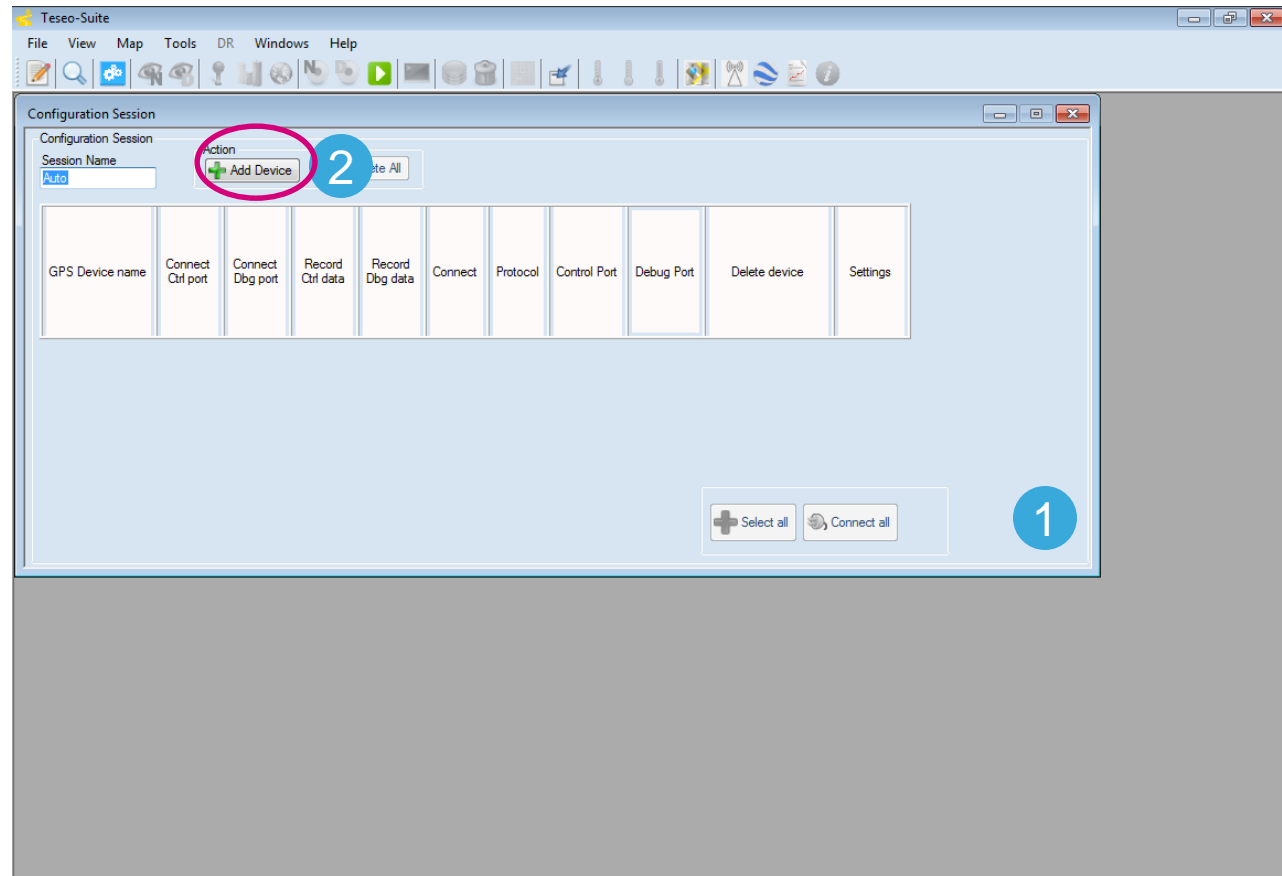
- Multiple GNSS tracer
- Multiple protocol support
- GNSS firmware configuration tool
- GNSS flashing tool
- Dead reckoning panel
- NMEA diagnostic tool
- Satellites signal monitoring viewer
- Map viewer
- Log viewer





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





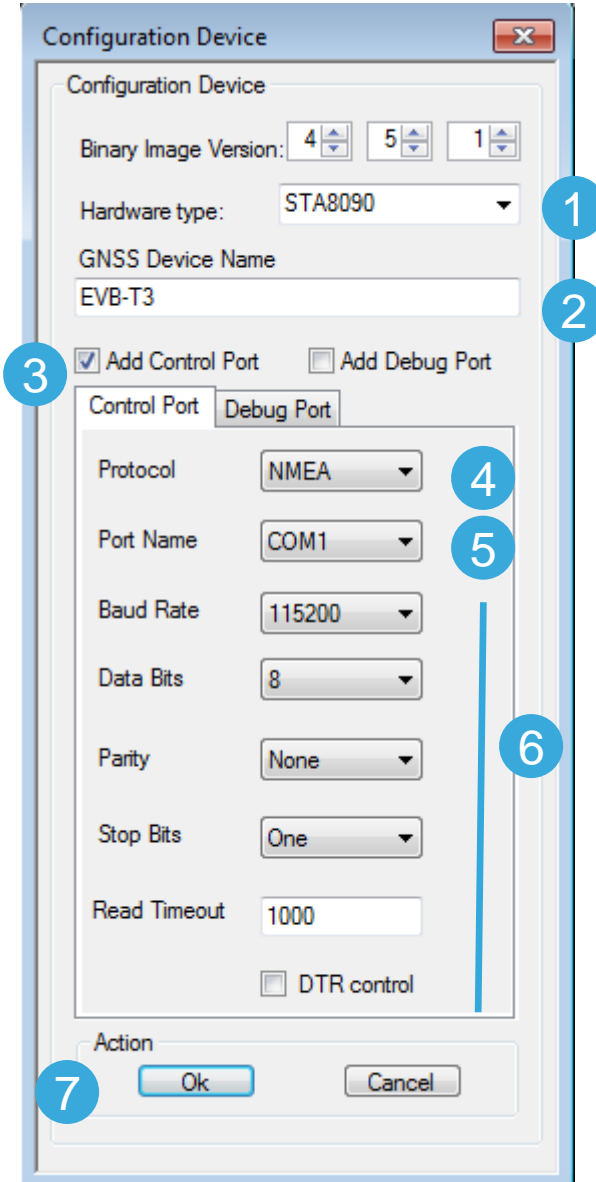
Teseo Suite Light – Configuration Device

- 1 Set the *Hardware type*: **STA8090**
- 2 Set the *GNSS Device Name*: **EVB-T3**
- 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
11520bps	8 Bits	1 Bit	None	None

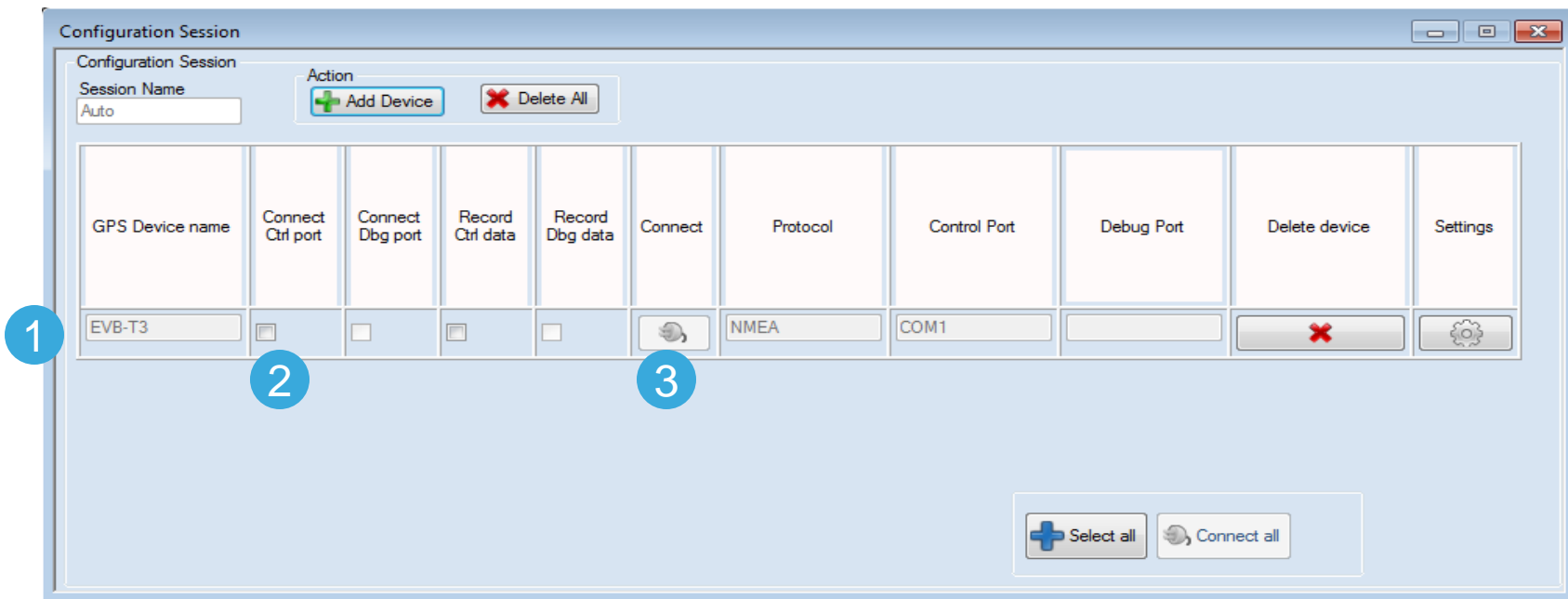
7 Click the *Ok* button





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





Teseo Suite Light – Device working

- 1 In the summary panel, the GNSS EVB-T3 state is reported
- 2 Click on the NMEA output window to inspect NMEA stream

The screenshot shows the Teseo Suite software interface. The main window is titled "Configuration Session" and contains a table of device configurations. A red circle highlights the "NMEA" protocol setting for the EVB-T3 device. A blue circle with the number "2" is placed over the "NMEA" text. To the right, a summary panel for "EVB-T3" displays various parameters, with a blue circle and the number "1" highlighting the "2D Acc." parameter.

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-T3	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		NMEA	COM1			



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-T3' application window. On the left, a 'Message Filter' list contains various NMEA sentence types, all of which are checked. The main area displays a stream of NMEA messages, including \$GPGSA, \$PSTMTG, \$PSTMSBAS, \$PSTMSBASMCH, \$PSTMCPU, \$GPRMC, \$GPGGA, \$GPGNS, \$GPVTG, and \$PGST. A blue circle with the number '2' is overlaid on the stream. On the right, the 'Decoding' panel is active for the '\$BDDTM' sentence type. It features a table with 'Label' and 'Value' columns. The table contains the following entries:

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

A blue circle with the number '1' is overlaid on the bottom right corner of the decoding panel.



Teseo Suite Light – Extra features

- 1 Click *Help* menu to access User-Manual
- 2 The User-Manual provides detailed information

The image displays the Teseo Suite Pro software interface. The top menu bar includes File, View, Map, Tools, DR, Windows, and Help. The Help menu is highlighted with a red circle and the number 1. Below the menu bar, there is a Configuration Session window with a table for device settings. A smaller screenshot of the User Manual introduction page is overlaid on the bottom right, showing the title 'Automotive Product Group Automotive Infotainment Division Navigation & Multimedia System & Architecture Teseo-Suite User Manual' and the section '1 Introduction'. A red circle and the number 2 are placed over the introduction text in the manual screenshot.

Automotive Product Group
Automotive Infotainment Division
Navigation & Multimedia System & Architecture
Teseo-Suite User Manual

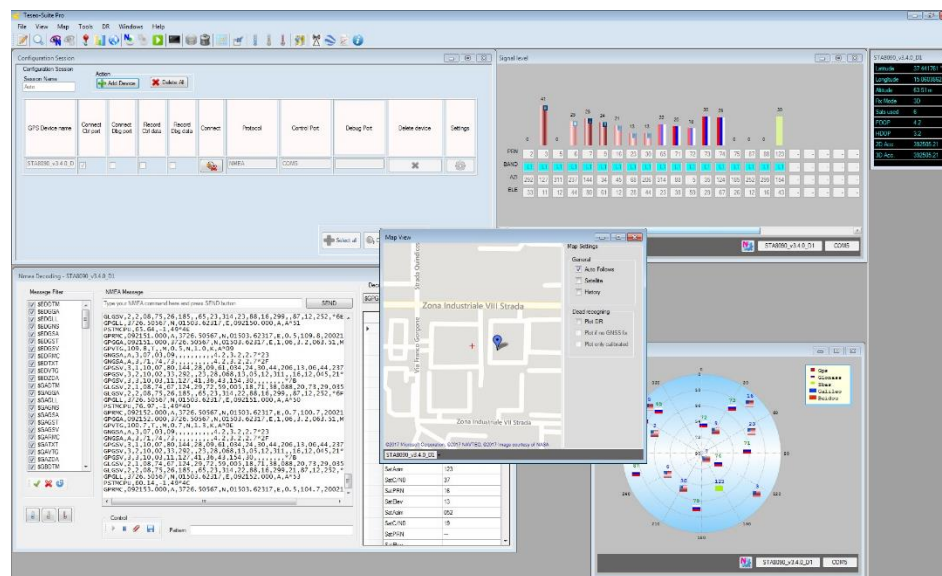
1 Introduction
This document contains the information necessary for correct use of the Teseo-Suite tool and describes all its functionality.
The functions offered by the tool can be divided into two main areas:
1. Viewer: NMEA or binary protocol decoding and display of some views;
2. Test plan: module for writing and running scripts on ST GNSS receivers.

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Enjoy with EVB-T3

Now you can enjoy the **EVB-T3** 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 III: [Webpage](#)**
 - Data-sheet of all PNs;
- **EVB-T3: [Webpage](#)**
 - Datasheet
- **Teseo Suite Light: [Webpage](#)**
 - Datasheet
 - Install program

GNSS ICs

ST's Teseo family of Global Navigation Satellite System ICs combines high positioning accuracy and indoor sensitivity with powerful processing capabilities, to simultaneously support multiple global navigation systems (BeiDou, Galileo, GLONASS, GPS, and QZSS).

Teseo III is the latest generation of GNSS ICs, and compared to Teseo II offers reduced power consumption, carrier-phase tracking for higher accuracy, and support for Ready-only Memory (ROM).

Our product offering includes standalone positioning chips (SAL) and configurable system-on-chips (SOCs). The standalone devices are offered with GNSS firmware embedded, to perform all positioning operations including tracking, acquisition, navigation and data output. The SOCs offer power processing and spare memory to enable customers and partners to easily and efficiently merge their code or specific IPs with ST's GNSS library to create a highly optimized platform.

Both solutions come with different package options and memory size, and are compatible with the TESEO-DRAW sensor fusion firmware for dead-reckoning and assisted navigation.

Teseo devices address e-call and telematics systems, personal navigation in PNDs and handheld devices, as well as marine and in-car navigation systems.

TESEO-SUITE

PC software tool to manage, configure and evaluate the performance of ST TESEO GNSS solutions in parallel.

On each ST TESEO GNSS solution the Teseo Suite is able to read, modify and analyze NMEA sentences logging and analysis supported. NMEA message-list configuration.

Key Features

- Multiple GNSS tracer
- Multiple protocol support
- GNSS firmware configuration tool
- GNSS tracking tool
- Dead reckoning panel
- NMEA diagnostic panel
- Satellites signal monitoring viewer
- Map viewer
- Log viewer

RESOURCES

Quick Links

Technical Documentation

Product Specifications		
Description	Version	
DB3224 PC GUI software to control, configure and performance analyze of Teseo GNSS family	1.0	

Legal

License Agreement		
Description	Version	
SLA0066 Software license agreement	1.6	

EVB-T3

TESEO III evaluation board

Download Databrief

QUICK VIEW RESOURCES TOOLS AND SOFTWARE SAMPLE & BUY QUALITY & RELIABILITY

Teseo EVB board is a complete standalone evaluation platform for Teseo III GNSS ST solution.

Teseo III embeds the high performance ARM946 microprocessor with dedicated SRAM and several serial communication interfaces, including USB, SPI, PC, UART and CAN.

Performance and configuration can be analyzed using the ST TESEO-SUITE PC Tool.

Key Features

- ST Teseo III GNSS platform;
- Multiconstellation GNSS: GPS, Galileo, Glonass, BeiDou, QZSS are supported;
- USB Power Supply and battery charge;
- Internal battery for standalone usage;
- ON/OFF and Reset buttons available;
- NMEA over.

RESOURCES

Technical Documentation

Product Specifications			
Description	Version	Size	
DB3223 Teseo III GNSS evaluation board	1.0	137 KB	