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EVB-VIC3DA

Teseo-VIC3DA Evaluation Board

Quick Start Guide





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Introduction to EVB-VIC3DA

The **EVB-VIC3DA** evaluation board is a complete standalone evaluation platform for Teseo-VIC3D/DA Dead-Reckoning GNSS module

The **Teseo-VIC3DA** module is an easy-to-use Dead-Reckoning 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-VIC3DA – front and rear panels

-  ... Yellow LED
-  IO-ODO connector
-  PWR Red LED
-  PPS Green LED
-  SMA Antenna connector

Front panel



Rear panel



-  ... Yellow LED
-  SD/MMC card
-  UART/USB connector
-  Reset Button
-  On/Off Switch button



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I/O-ODO Connector signals

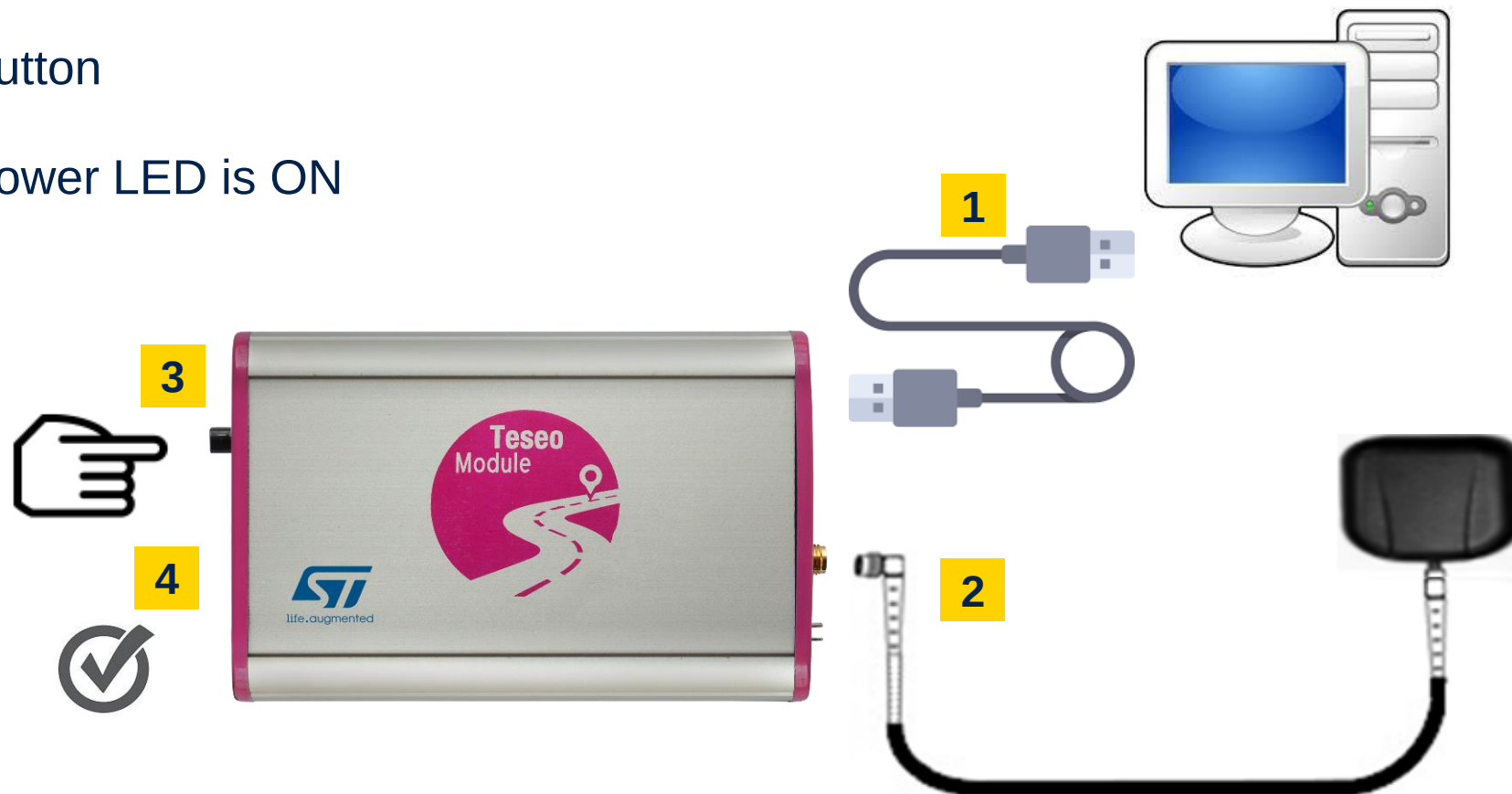
I/O ODO Connect is a 14 pins connector providing the signal reported in table

1	3	5	7	9	11	13
12V_CAR_BAT	FWD	INT-1	I2C_SCD	VBAT	3.3V_GNSS	GND
12V_CAR_BAT	WHELLTICK	INT-2	I2C_SDA	VBAT_VIC3	3.3V_VIC	GND
2	4	6	8	10	12	14



Connect and start EVB-VIC3DA

- 1 Connect the USB cable between PC USB and the EVB-VIC3DA 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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Install Teseo-Suite and VCP driver

The **Teseo-Suite** is a powerful PC Tool able to manage the EVB-VIC3DA evaluation board

Download and install the Teseo-Suite from www.st.com

Download and install the Silicon Labs VCP Driver from www.silabs.com

ST logo: life.augmented

Menu

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TESEO-SUITE ACTIVE

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

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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.

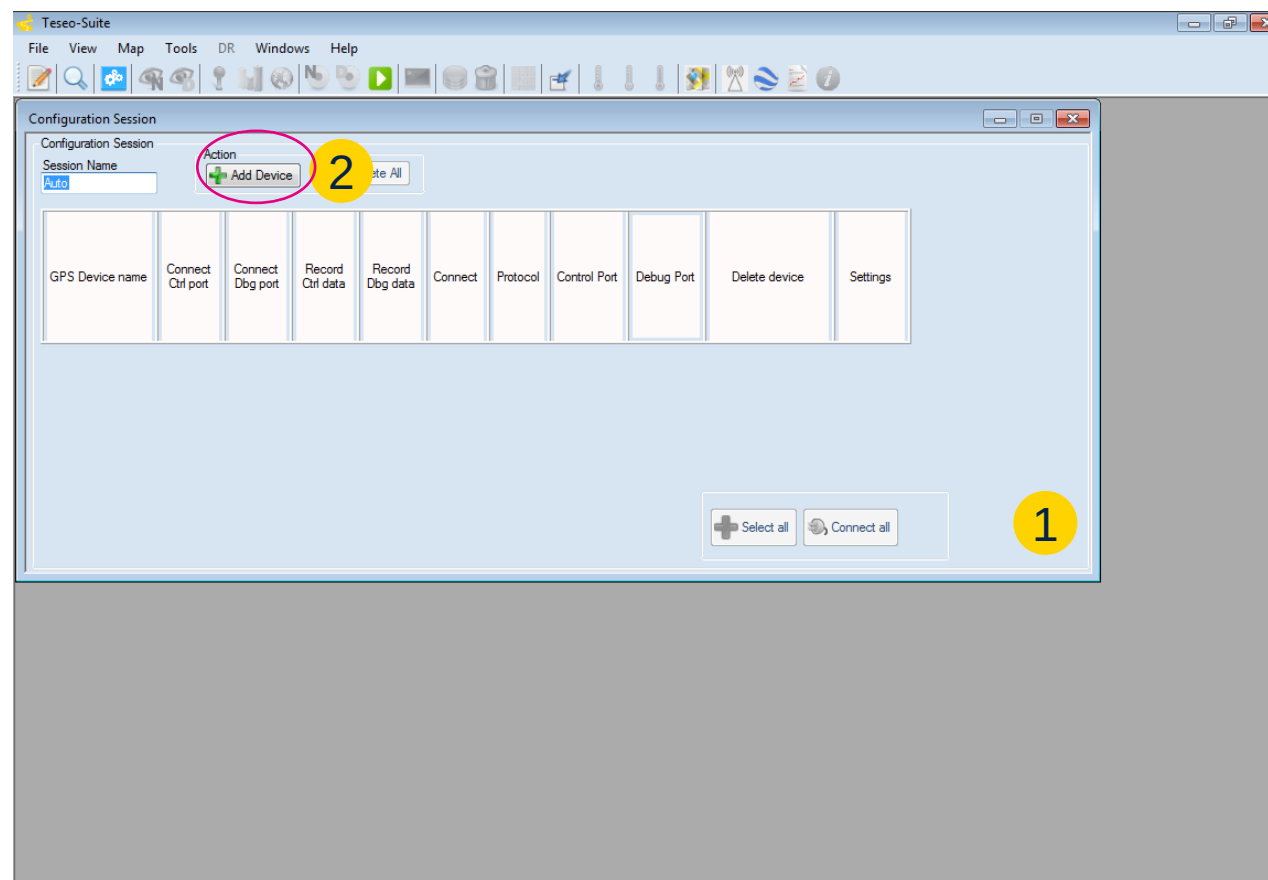
Key Features

- 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 - 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-VIC3DA**
- 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
115200 bps	8 Bits	1 Bit	None	None

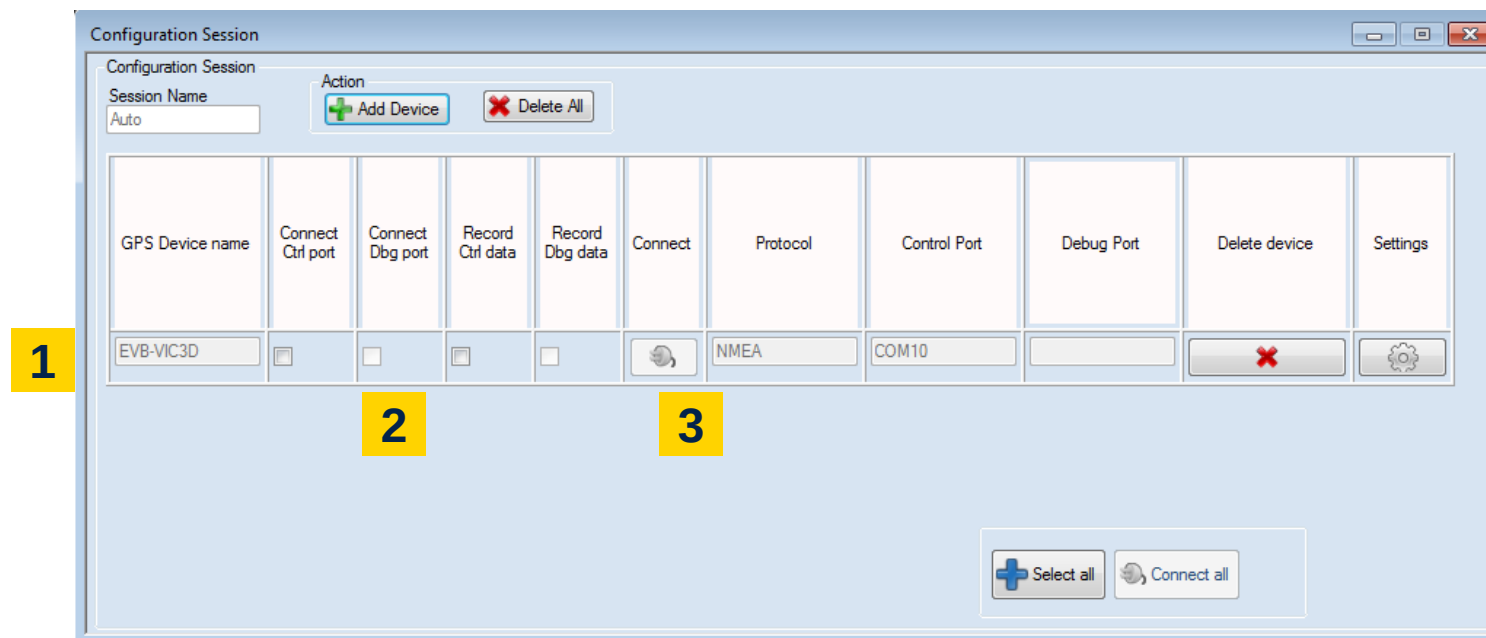
- 7 Click the Ok button

The screenshot shows the 'Configuration Device' dialog box. The 'Configuration Device' section has 'Binary Image Version' set to 4, 5, and 1. 'Hardware type' is set to STA8090 (1), 'NMEA Version' is 3x, and 'GNSS Device Name' is STA8090_v00000004_D1 (2). The 'Add Control Port' checkbox is checked (3). The 'Control Port' tab is active, showing 'Protocol' as NMEA (4), 'Port Name' as COM10 (5), 'Baud Rate' as 115200, 'Data Bits' as 8, 'Parity' as None, 'Stop Bits' as One, and 'Read Timeout' as 1000. The 'DTR control' checkbox is checked (6). The 'Action' section at the bottom has 'Ok' and 'Cancel' buttons (7).



Teseo-Suite – connect the device

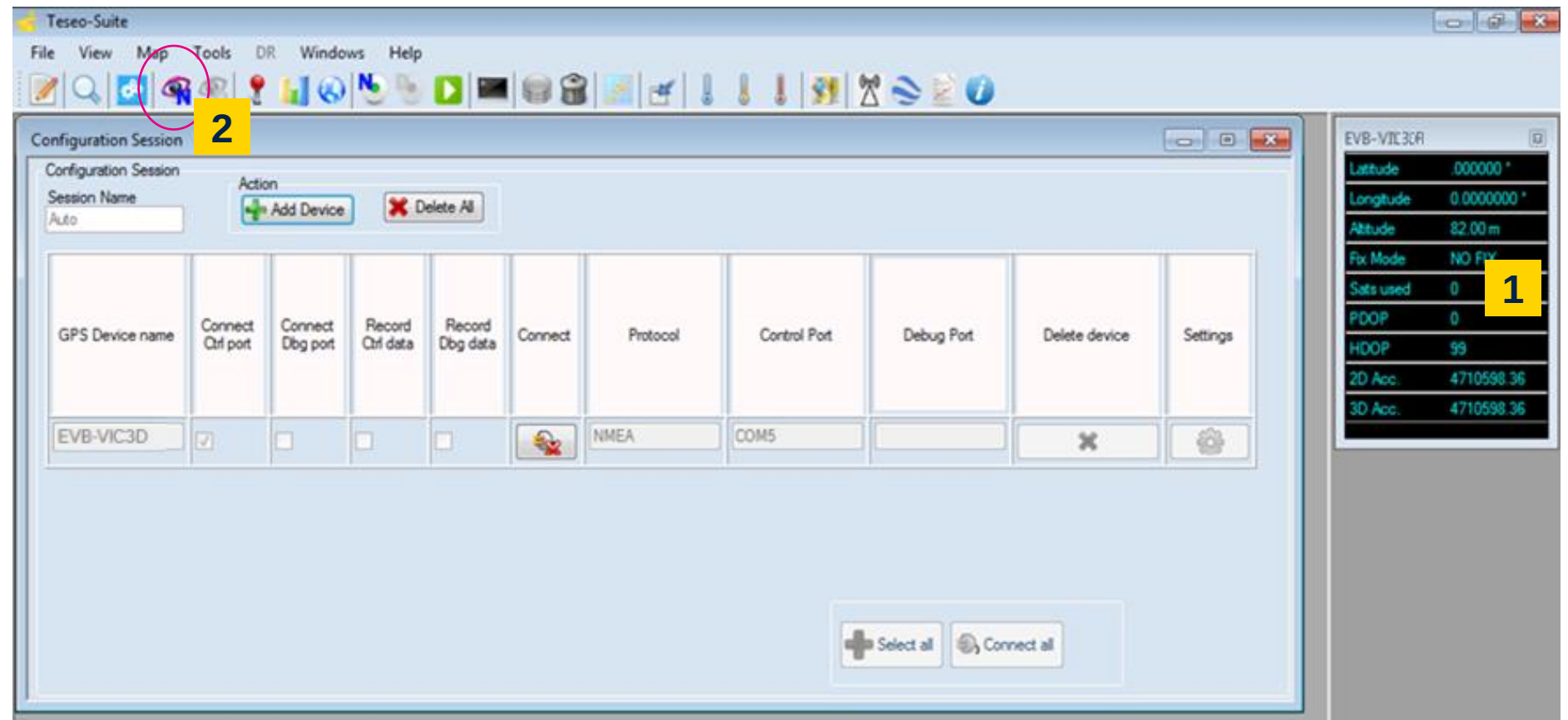
- 1 In the **Configuration Session** panel a new entry (row) is shown
- 2 Enable **Connect Ctrl port**
- 3 Click the **Connect** button





Teseo-Suite – device working

- 1 In the summary panel, the GNSS EVB-VIC3DA state is reported
- 2 Click on the NMEA output window to inspect the NMEA stream





Teseo-Suite – inspect device

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

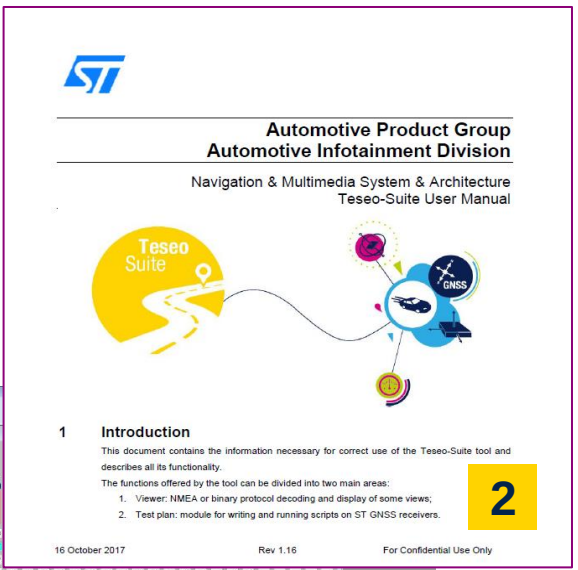
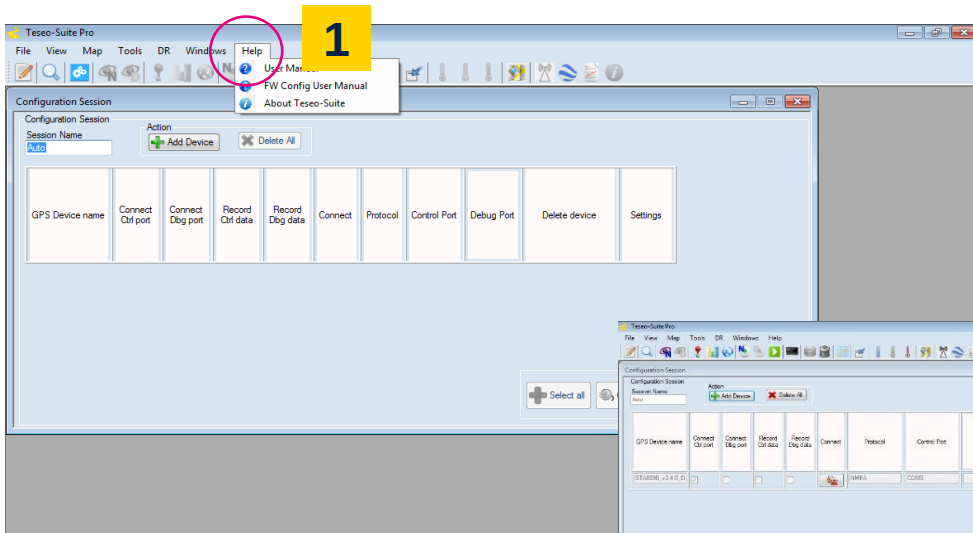
The screenshot displays the 'Nmea Decoding - EVB-VIE3D' window. On the left, a 'Message Filter' list shows various NMEA sentences with checkboxes. The main area, labeled 'NMEA Message', contains a stream of NMEA sentences. A yellow box with the number '2' highlights this stream. On the right, the 'Decoding' panel shows a table for '\$BDDTM' with columns 'Label' and 'Value'. A yellow box with the number '1' highlights the 'Local datum code' row in 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







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All documents are available on: www.st.com

Teseo-VIC3DA: Webpage

- Data-sheet
- Hardware User Manual
- Software User Manual

EVB-VIC3DA: Webpage

- Datasheet
- User Manual
- Quick Start Guide

Teseo-Suite: Webpage

- Datasheet
- Install program

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RESOURCES

Quick Links

Technical Documentation

Product Specifications		
Description	Version	Size
DB3224 : 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	1.6	59 KB