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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



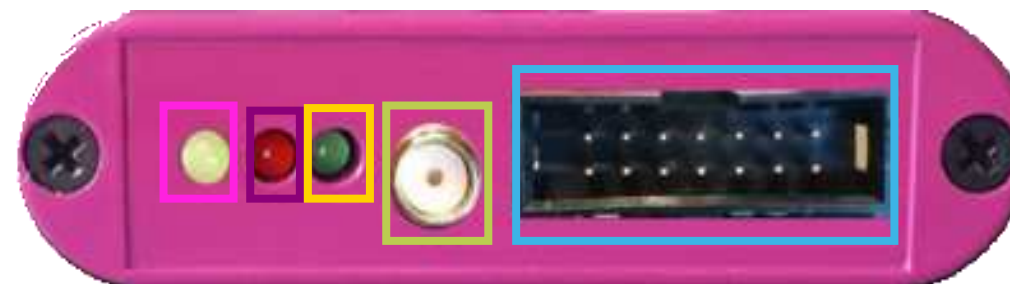
Rear panel



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

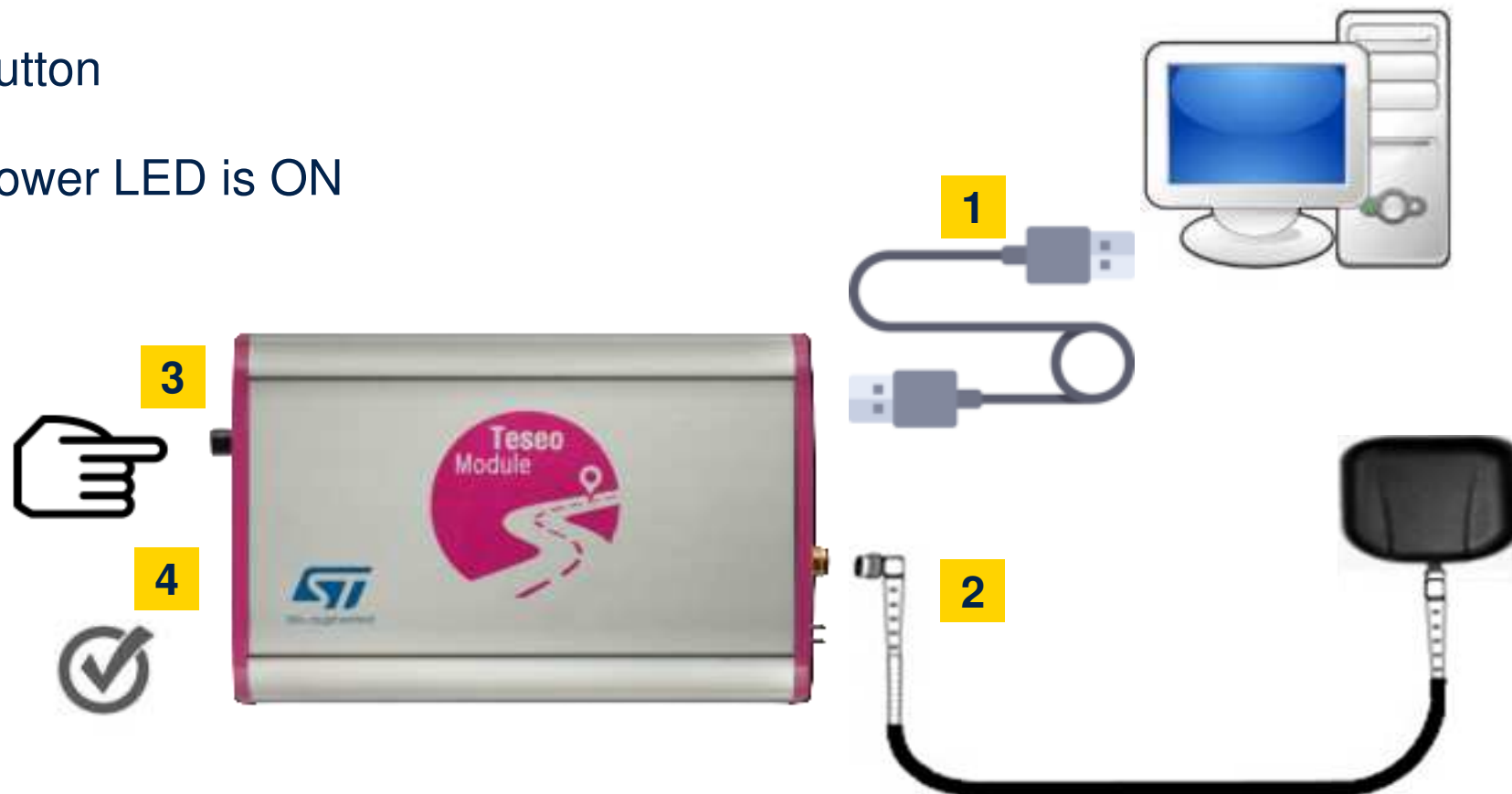
I/O ODO Connect is a 14 pins connector providing the signal reported in table

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

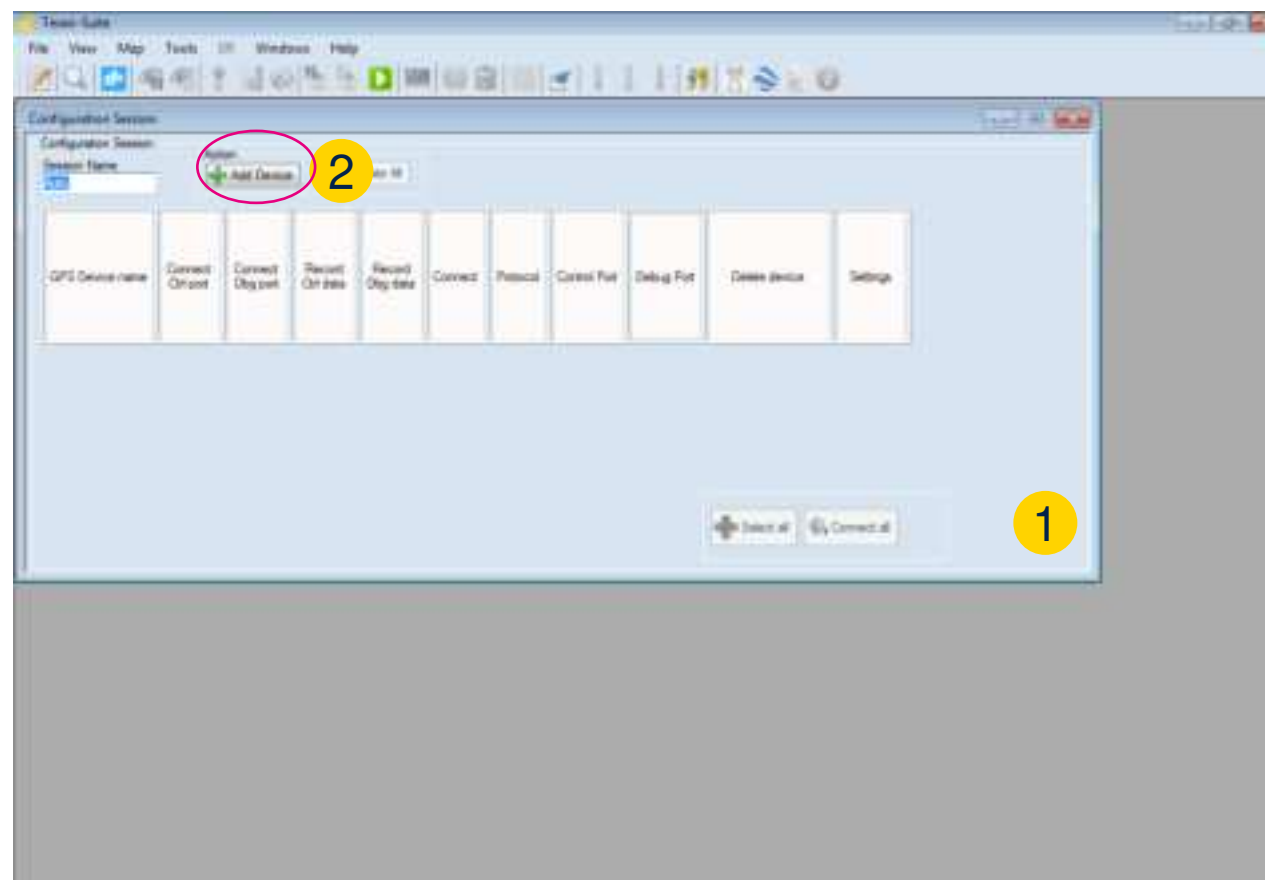
■ Download and install the Silicon Labs VCP Driver from www.silabs.com





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

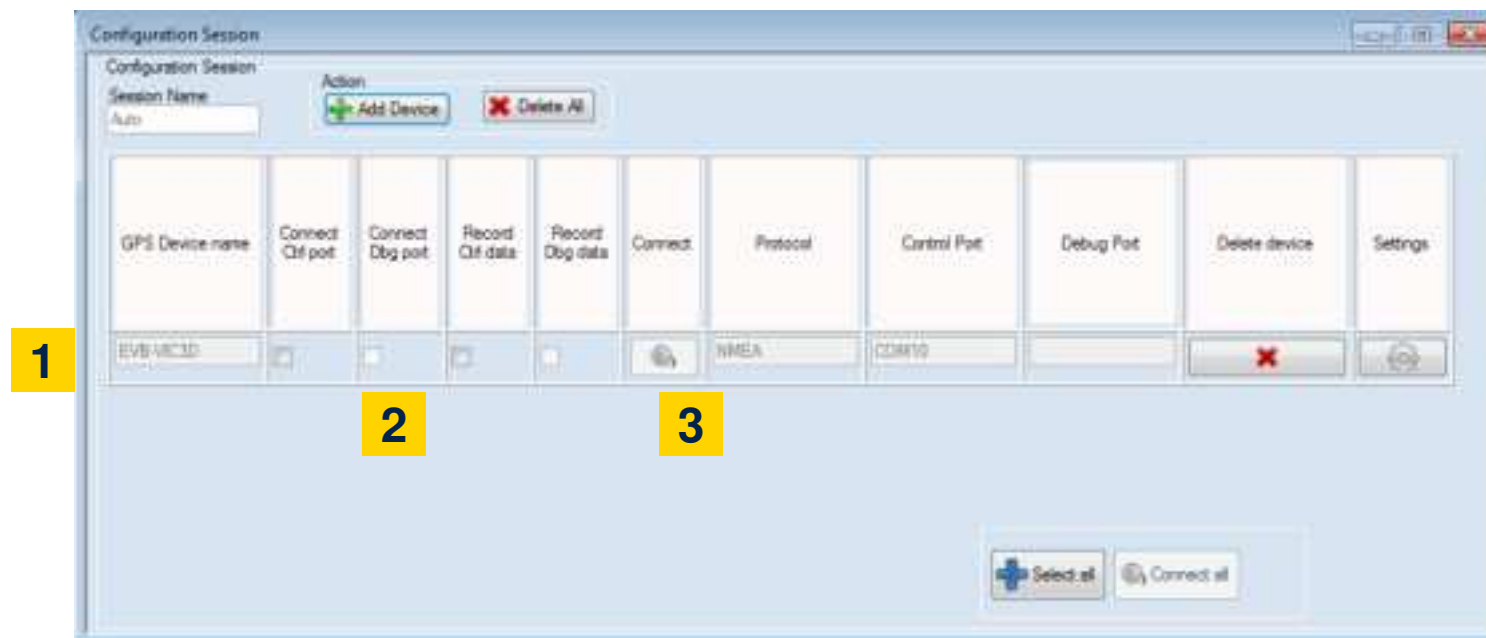
- 7 Click the Ok button

The screenshot shows the 'Configuration Device' dialog box. The 'Hardware type' is set to 'STA8090' (1). The 'GNSS Device Name' is 'STA8090_v00000004_D1' (2). The 'Add Control Port' checkbox is checked (3). The 'Control Port' tab is selected, and the 'Protocol' is set to 'NMEA' (4). The 'Port Name' is 'COM10' (5). The 'Baud Rate' is '115200', 'Data Bits' is '8', 'Parity' is 'None', and 'Stop Bits' is 'One' (6). The 'Read Timeout' is '1000' and 'DTR control' is checked. The 'Ok' button is highlighted (7).



Teseo-Suite – connect the device

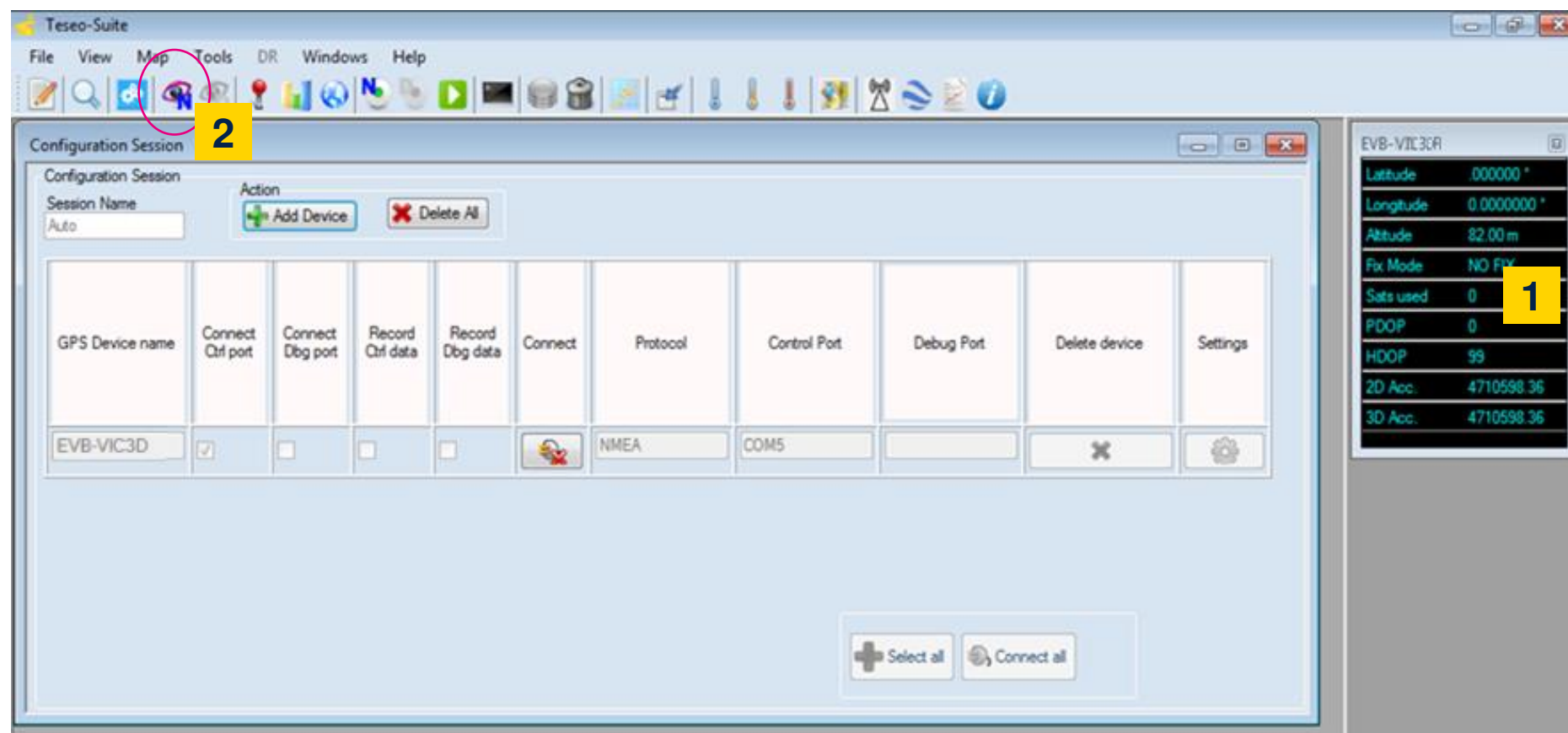
- 1 In the **Configuration Session** panel a new entry (row) is shown
- 2 Enable **Connect Ctrl port**
- 3 Click the **Connect** button





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

Nmea Decoding - EVB-VIE3D

Message Filter

- ☒ \$BDDTM
- ☒ \$BDGGA
- ☒ \$BDGLL
- ☒ \$BDGNS
- ☒ \$BDGSA
- ☒ \$BDGST
- ☒ \$BDGSV
- ☒ \$BDRMC
- ☒ \$BDTXT
- ☒ \$BDVTG
- ☒ \$BDZDA
- ☒ \$GADTM
- ☒ \$GAGGA
- ☒ \$GAGLL
- ☒ \$GAGNS
- ☒ \$GAGSA
- ☒ \$GAGST
- ☒ \$GAGSV
- ☒ \$GARMC
- ☒ \$GATXT
- ☒ \$GAVTG
- ☒ \$GAZDA
- ☒ \$GBDTM

NMEA Message

SEND

2

Decoding

\$BDDTM

☒ Follow last frame received

Label	Value
Local datum code	99
Local datum code ID	471
Latitude offset	4710598.36
N/S	
Longitude offset	
E/W	
Altitude offset	
Reference datum code	

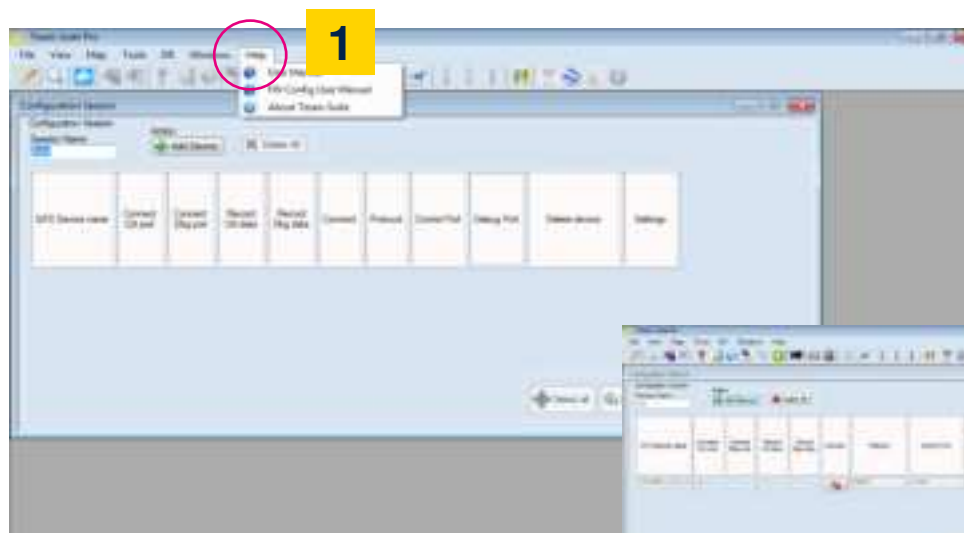
Control

Pattern



Teseo Suite – extra features

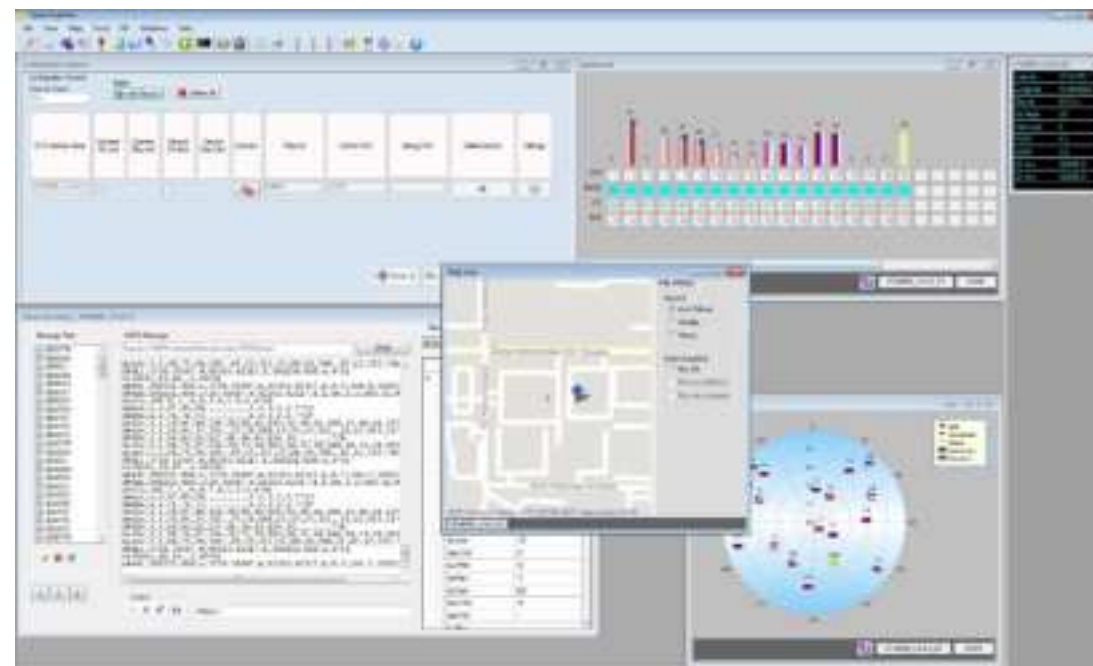
- 1 Click Help menu to access User-Manual
- 2 User-Manual reports all information needed





Enjoy with EVB-VIC3DA

Now you can enjoy the **EVB-VIC3DA** and explore all its features with the **Teseo-Suite**





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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

