Teseo III GNSS evaluation board

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:
  - Bluetooth;
  - UART by USB;
  - USB;
- μSD/MMC card reader for easy logging;
- ST 3 axis gyroscope, ST 3 axis accelerometer and ST pressure sensor to enable ST Teseo DRAW(a);
- PPS output;
- Leds:
  - PPS
  - Fix status
  - Antenna sensing
  - Power

Description

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, I2C, UART and CAN.

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

a. ST Teseo Dead Reckoning Automotive Way

b. ST TESEO-SUITE can freely be downloaded from:
   http://www.st.com
1 HW and SW resources

1.1 ST GNSS solutions
Teseo III ST GNSS family solution is supported.

1.2 Power supply
Board powered through USB or battery for standalone usage. Battery charger is supported.

1.3 Sensors
Board equipped with sensors over Teseo III-I2C:
- ST Accelerometer sensor: AIS328DQ
- ST Gyroscope sensor: A3G4250D
- ST Pressure sensor: LPS25H

1.4 µSD/MMC Connector
µSD/MMC is available for data-logging.

1.5 NMEA port supported
- Teseo III UART-2 over USB\(^{\text{c}}\)
- Teseo III USB peripheral available\(^{\text{d}}\);
- Teseo III UART-0 over ST Bluetooth 3.0 module: SPBT2632C2A.AT2

1.6 Kit contents
- Teseo III evaluation board;
- GNSS Antenna
- USB cable
- Cigarette lighter

---

\(^{\text{c}}\) UART/USB bridge driver needed. Driver can be downloaded from: Silabs web site (USBtoUARTBridgeVCPDrivers.aspx)

\(^{\text{d}}\) Teseo USB not supported yet
2 Block diagram

Figure 1. Block diagram
# Revision history

**Table 1. Document revision history**

<table>
<thead>
<tr>
<th>Date</th>
<th>Revision</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>03-Mar-2017</td>
<td>1</td>
<td>Initial release.</td>
</tr>
</tbody>
</table>
IMPORTANT NOTICE – PLEASE READ CAREFULLY

STMicroelectronics NV and its subsidiaries (“ST”) reserve the right to make changes, corrections, enhancements, modifications, and improvements to ST products and/or to this document at any time without notice. Purchasers should obtain the latest relevant information on ST products before placing orders. ST products are sold pursuant to ST’s terms and conditions of sale in place at the time of order acknowledgement.

Purchasers are solely responsible for the choice, selection, and use of ST products and ST assumes no liability for application assistance or the design of Purchasers’ products.

No license, express or implied, to any intellectual property right is granted by ST herein.

Resale of ST products with provisions different from the information set forth herein shall void any warranty granted by ST for such product.

ST and the ST logo are trademarks of ST. All other product or service names are the property of their respective owners.

Information in this document supersedes and replaces information previously supplied in any prior versions of this document.

© 2017 STMicroelectronics – All rights reserved