NTL EVA KIT

FOR NTL10X OEM MODULES FAMILY

Overview

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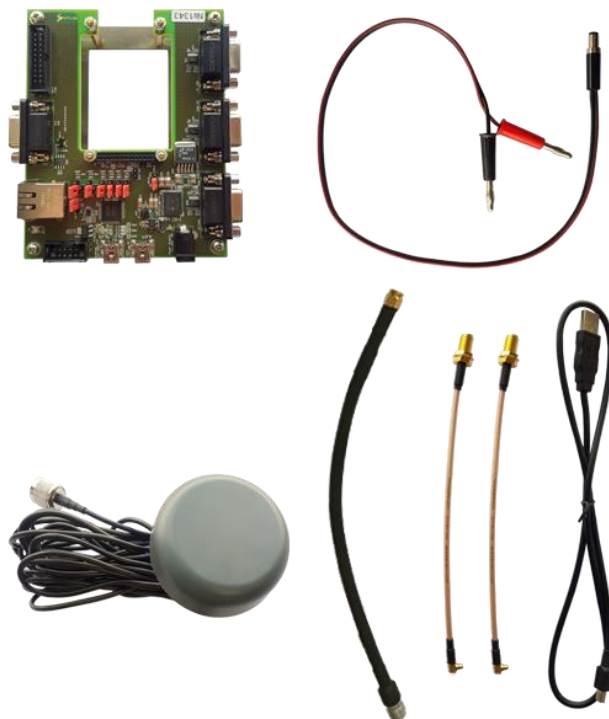
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1 NTL EVA KIT PACKAGE CONTENTS

The NTL Eva Kit is a convenient tool that allows customers to integrate GNSS receiver OEM modules and efficiently demonstrate their key features. The NTL Eva Kit is a powerful platform for evaluation of GNSS receiver OEM modules.

The NTL Eva Kit includes everything you need to work with the navigation OEM modules of the NTL10X family or other OEM modules form-factor and pinout compatible.

NTL Eva Kit package contains[*]:

- NTL Eva Board – 1pcs. (A);
- TW3972 – Triple Band GNSS antenna with L-Band Correction + antenna cable, 5m – 1pcs. (B, C);
- TNC female to SMA male cables – 1pcs. (D) (optionally);
- SMA female to MMCX male cables – 2pcs. (E);
- USB standard A to mini-B cable – 1pcs. (F);
- Banana plug to male DC jack connector cable – 1pcs. (G);
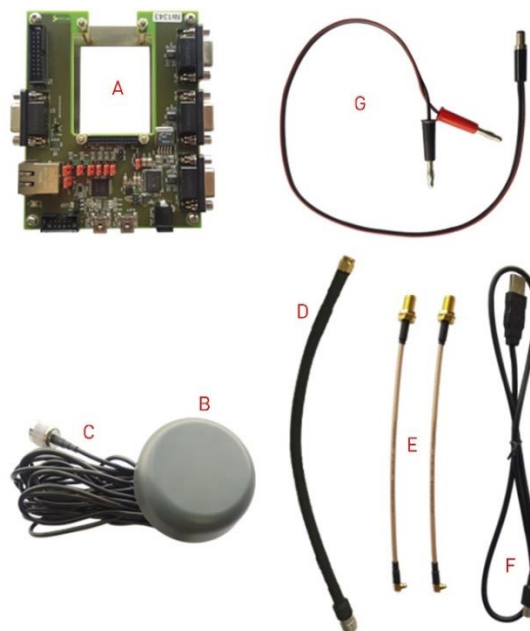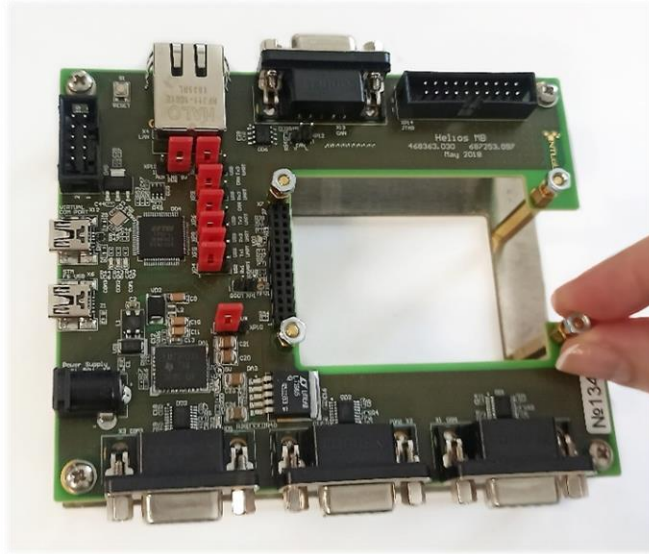- Documentation set;
- Packaging.

Figure 1.1 – NTL Eva Kit package contents

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[*]The package contains can be changed by the supplier. Please, visit **www.ntlab.lt** for actual information on the package contents.
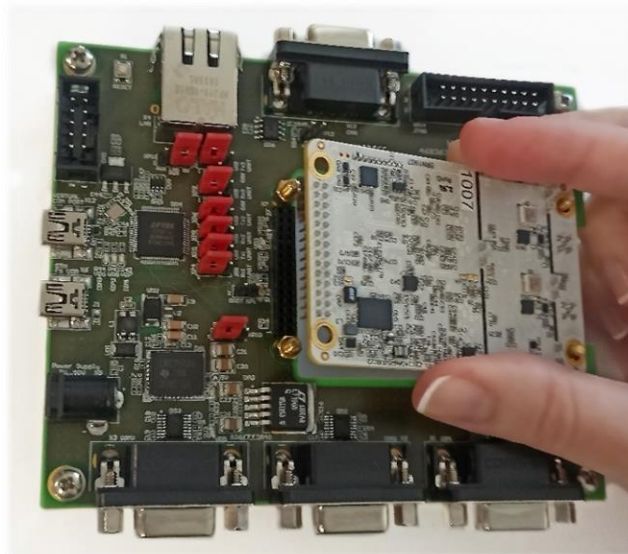
2 NTL EVA KIT CONNECTION DIAGRAM
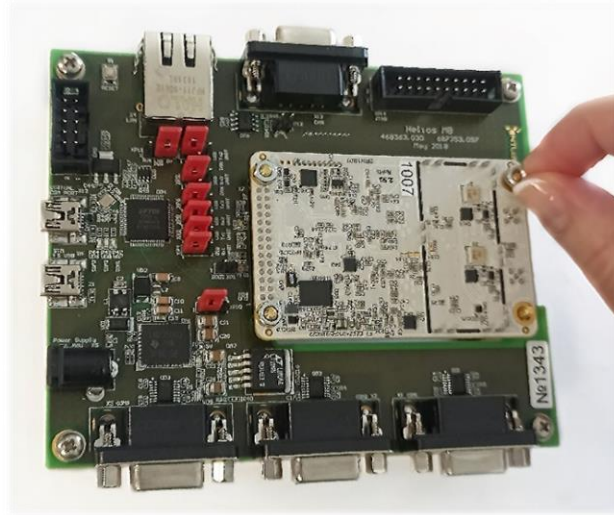
Complete the following steps:

1. NTL Eva Board have sets of four standoffs. Remove the top set of four nuts.
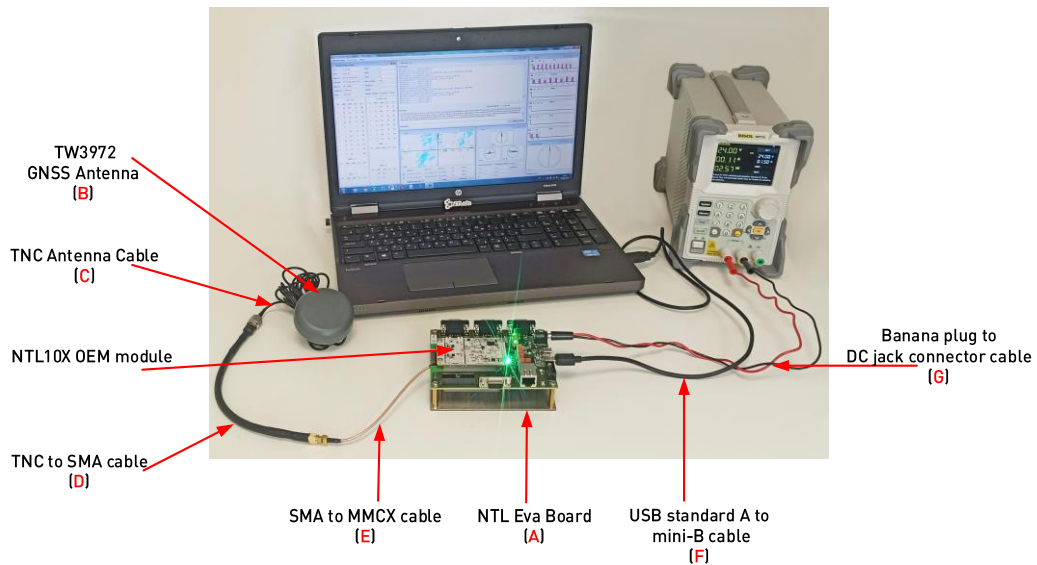

2. Place the NTL10X OEM module on the standoffs so the pin header on the OEM module faces downward and fits into the mating pin header on the NTL Eva Board.

3. Attach the nuts you removed in step above to secure the OEM module to the NTL Eva Board (hand-tighten only).

4. Connect an external TW3972 antenna to the NTL10X OEM module using **C***, **D*** and **E*** cables.

5. Connect the **F*** cable to **X12** NTL Eva Board connector and to a USB port on your PC.

6. Connect the **G*** power cable to **X5** power connector on the NTL Eva Board and to an external power source (7V...50V DC).

7. Power on the external power source.

8. Run NTL Browser for development, diagnostic testing and demonstrate the OEM module work results. NTL Browser is a software tool designed to communicate with NTL10X. It is available on NTLab company FTP server. Link (password and login) may be provided on request.

TW3972 GNSS Antenna (B)

TNC Antenna Cable (C)

NTL10X OEM module

TNC to SMA cable (D)

SMA to MMCX cable (E)

NTL Eva Board (A)

USB standard A to mini-B cable (F)

Banana plug to DC jack connector cable (G)

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* See figure 1.1

3 ANTENNA SPECIFICATIONS*

Applications:

- Precision positioning;
- Triple Frequency RTK receivers;
- Military & Security.

Main electrical antenna specifications:

- Frequency Range: GPS L1/L2/L5, GLONASS G1/G2/G3, BeiDou B1/B2, Galileo E1/E5a+b plus L-band correction services;
- Filter Bandwidth: L2/L5 1164MHz...1254MHz, L-Band/L1 1525 MHz...1606MHz;
- LNA Noise Figure: < 2.5dB typ. at 25°C;
- Overall LNA Gain: 37dB typ., 35dB min;
- Gain Variation with Temperature: 3dB max over operational temperature range;
- VSWR (at LNA output, reference 50 Ohms): <1.5:1 typ. 1.8:1 max.;
- EMI Immunity: 50V/Meter, excepting L1+/-100MHz and L2 +/- 100MHz;
- Supply Voltage Range: +2.5 to 16V DC nominal, up to 50mV p-p ripple;
- Supply Current: 24 mA typ. at 25°C;
- ESD Circuit protection: 15 KV air discharge.

Mechanicals & Environmental:

- Mechanical Size, Ground Plane: 66mm x 21mm, 100mm ground plane recommended;
- Cable connector: TNC male;
- Operating Temperature Range: -40°C to +85°C;
- Weight: 185 g.

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* According to the product datasheet

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