

## NTL EVA KIT FOR NTL10X OEM MODULES FAMILY

### Overview



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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\*:*

- power and Interface adapter NTL Eva Board\* – 1 pc. (A);
- survey antenna – 1 pc. (B);
- TNC male to SMA male – 1 pc. (C);
- SMA female to MMCX male cables – 2 pcs. (optional). (D);
- USB standard A to mini-B cable – 1 pc. (E);
- banana plug to male DC jack connector cable – 1 pc. (F);
- documentation set;
- packaging.



Figure 1.1 – NTL Eva Kit package contents

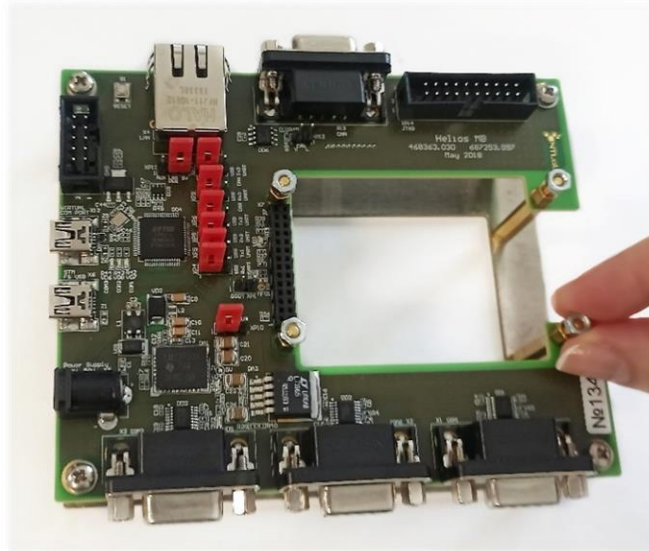
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\*. Appearance may differ from that supplied. Refer to Document «NTL\_EVA\_BOARD-BF-MANUAL-xxxx-xx.pdf»

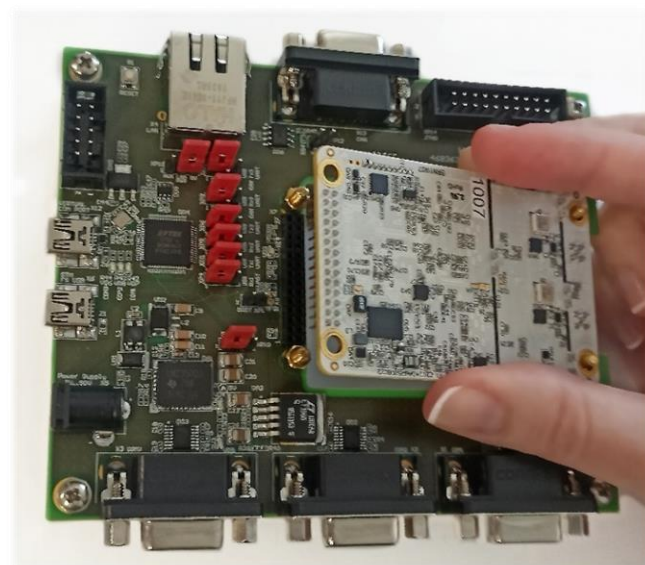
## 2 NTL EVA KIT CONNECTION DIAGRAM

*Complete the following steps:*

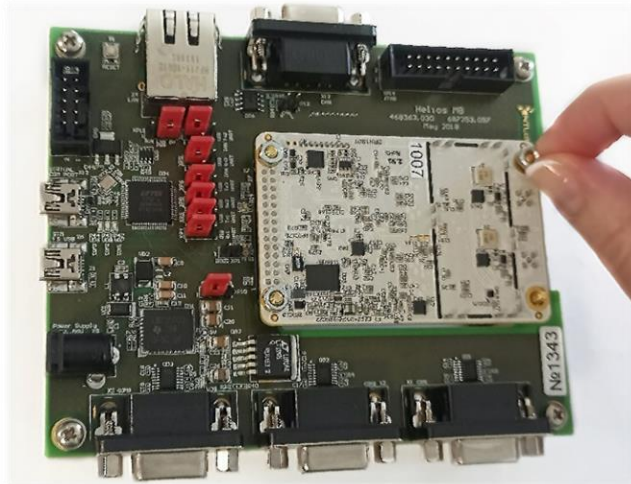
1. NTL Eva Board have sets of four standoffs. Remove the top set of four nuts.



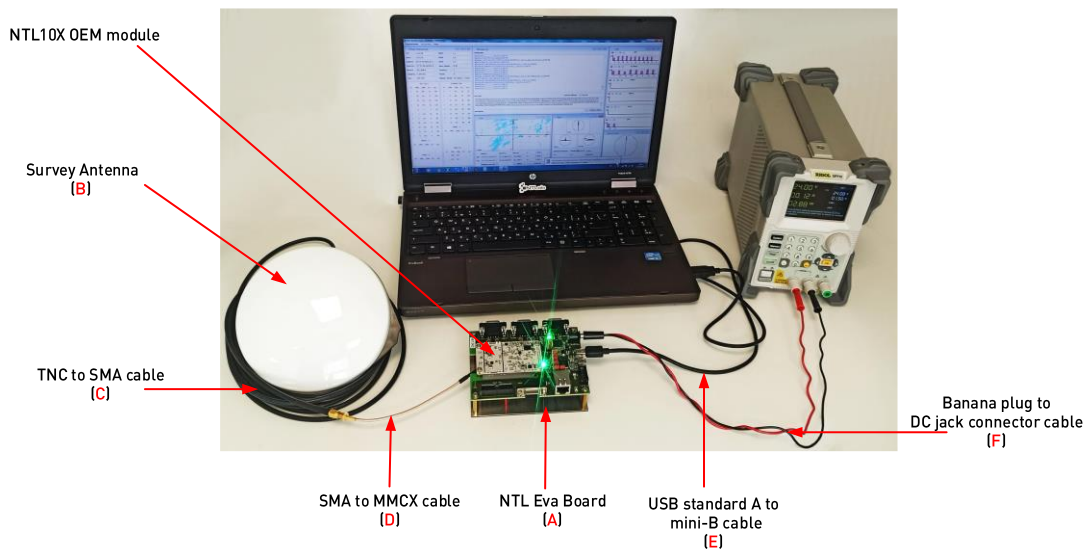
2. Place the NTL10X OEM module on the standoffs so the pin header on the OEM module faces downward and fits into the mating pin header on the NTL Eva Board.



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 survey antenna to the NTL10X OEM module using C\* and D\* cables.
5. Connect the E\* cable to X12 NTL Eva Board connector and to a USB port on your PC.
6. Connect the F\* power cable to X5 power connector on the NTL Eva Board and to an external power source (7 V...50 V DC).
7. Power on the external power source.
8. Install FT4232HL driver for NTL Eva Board. The drivers are available from: <https://www.ftdichip.com/Drivers/VCP.htm>
9. 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.



\* See Figure 1.1

### 3 ANTENNA SPECIFICATIONS\*

#### *Applications:*

Survey antenna is a multiple constellation full-frequency external surveying antenna, to meet the current surveying equipment of high precision, multiple constellation compatibility requirements. It can be widely used in geodetic surveying, marine surveying, waterway surveying, dredging surveying, seismic monitoring, bridge deformation monitoring, landslide monitoring, dock container operation and other occasions.

#### *Main electrical antenna specifications:*

- frequency Range: GPS L1/L2/L5, GLONASS L1/L2, BeiDou B1/B2/B3/S-band, Galileo E1/E5a/E5b, NavIC L5/S-band, SBAS;
- impedance: 50 Ohm;
- polarization: RHCP;
- axial ratio:  $\leq 3$ dB;
- azimuth coverage:  $360^\circ$ ;
- output VSWR:  $\leq 2.0$ ;
- peak gain: 5.5 dB;
- phase center deviation:  $\pm 2$  mm;
- noise figure:  $\leq 2.0$  dB;
- LNA Gain:  $40 \pm 2$  dB;
- operation current:  $\leq 65$  mA;
- operation voltage: 3.3 V...12 V DC;
- group delay:  $\leq 5$  ns.

#### *Mechanicals & Environmental:*

- dimension:  $\varnothing 173.4$  mm  $\times$  62.6 mm;
- connector: TNC Female;
- operating temperature range:  $-40^\circ\text{C}$  to  $+85^\circ\text{C}$ ;
- weight:  $\leq 550$  g.

**Warranty: 24 months.**

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\* According to the product datasheet

## CONTACTS

For complete contact information visit us at [www.ntlab.lt](http://www.ntlab.lt)

### Office

NTLAB, UAB

88 Zalgirio, LT-09303 Vilnius, Lithuania

e-mail: [sales@ntlab.lt](mailto:sales@ntlab.lt)