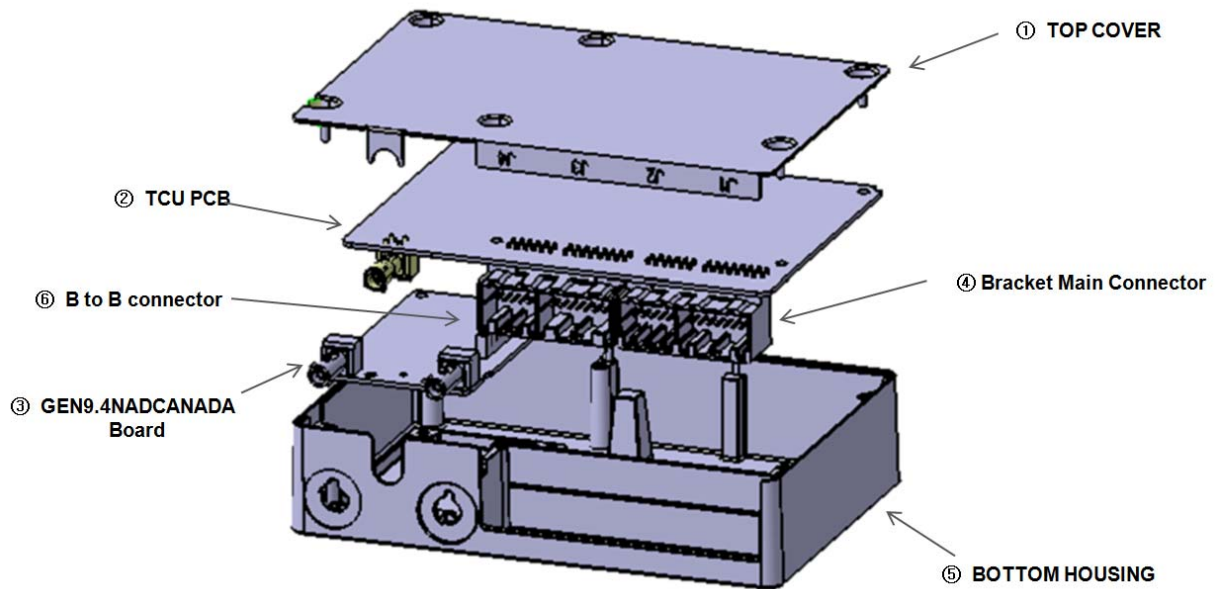# 1.   Installation Guide for GEN9.4NADCANADA
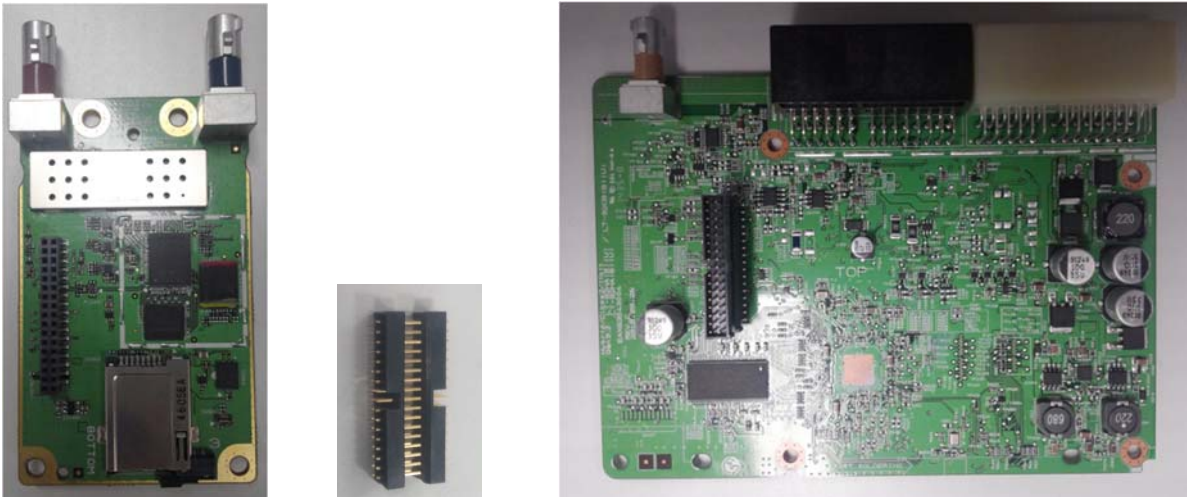
This part establishes the installation guide for GEN9.4NADCANADA.

Description of installation is shown as below:

1. **Number ① : Top cover**
2. **Number ② : TCU (Telematics Control Unit) : Power board**
3. **Number ③ : GEN9.4NADCANADA module**
4. **Number ④ : TCU main connector bracket.**
5. **Number ⑤ : Bottom cover**
6. **Number ⑥ : B to B connector**

[Fig.1] VCP [module(NAD) + Power board(TCU)] setting information

[Fig.2] VCP [module(NAD) + Power board(TCU) + Housing] setting information (Full Assembly)

<Front View>   <Rear View >

<FCC Regulatory Notices>

1. **GEN9.4NADCANADA** module has been granted as limited modular approval that is limited to that the specific host only (Telematics device). The host manufacturer is LG Electronics USA; Host **FCC ID: BEJLTTG94L**.

2. **GEN9.4NADCANADA** module has no its power supply and it must be connected with this host while working; and the TCU part in this host support the power.

3. A label must be affixed to the outside of the end product into which the **GEN9.4NADCANADA** module is incorporated, with a statement similar to the following:
 "This device contains **FCC ID: BEJLTTG94**."

4. The transmitter module must not be co-located or operating in conjunction with any other antenna or transmitter except in accordance with FCC multi-transmitter product procedures.

5. The end product with an embedded **GEN9.4NADCANADA** module may also need to pass the FCC Part 15 unintentional emission testing requirements and be properly authorized per FCC Part 15.

6. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

7. Changes or modifications made to this equipment not expressly approved by LG Electronics USA may void the FCC authorization to operate this equipment.

8. This is device is a mobile device with respect to RF exposure compliance. The antenna used for this transmitter must be installed to provide a separation distance of at least 30 cm from all persons. Final Installers (automobile manufacturer) must be provided with specific information required to satisfy RF exposure compliance for installations and final host devices.
Compliance of this device in all final host configurations is the responsibility of the Grantee.
The highest permitted antenna gains including cable loss for use with this device are: GSM850/WCDMA850: -2.4 dBi, GSM1900/WCDMA1900: -0.3 dBi.

9.   The cable length that must be used in the final installation is at least 1.5 m.
   - RF cable loss is proportional to the line length increases.
   - RF cable type : straight FAKRA plug type RF cable.
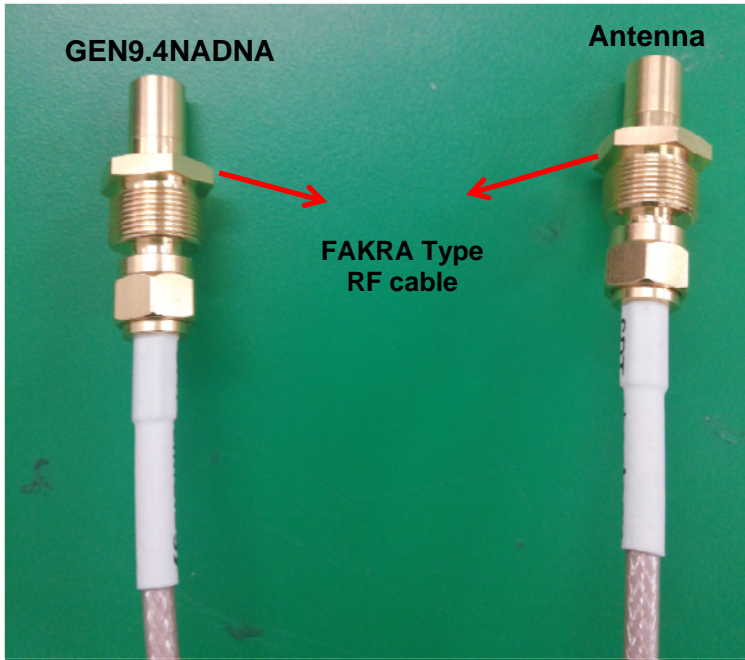
1) Low Band RF cable loss (850Mhz)
   - GSM850/ WCDMA B5 (824 MHz ~ 894 MHz)

Band		GSM850/ WCDMA B5					
Frequency (MHz)		824	836	849	869	881	894
1.5m	I.L (dB)	-1.8484	-1.8688	-1.8947	-1.9125	-1.9293	-1.9402
3m	I.L (dB)	-3.6968	-3.7376	-3.7894	-3.825	-3.8586	-3.8804
4.5m	I.L (dB)	-5.5452	-5.6064	-5.6841	-5.7375	-5.7879	-5.8206
6m	I.L (dB)	-7.3936	-7.4752	-7.5788	-7.65	-7.7172	-7.7608
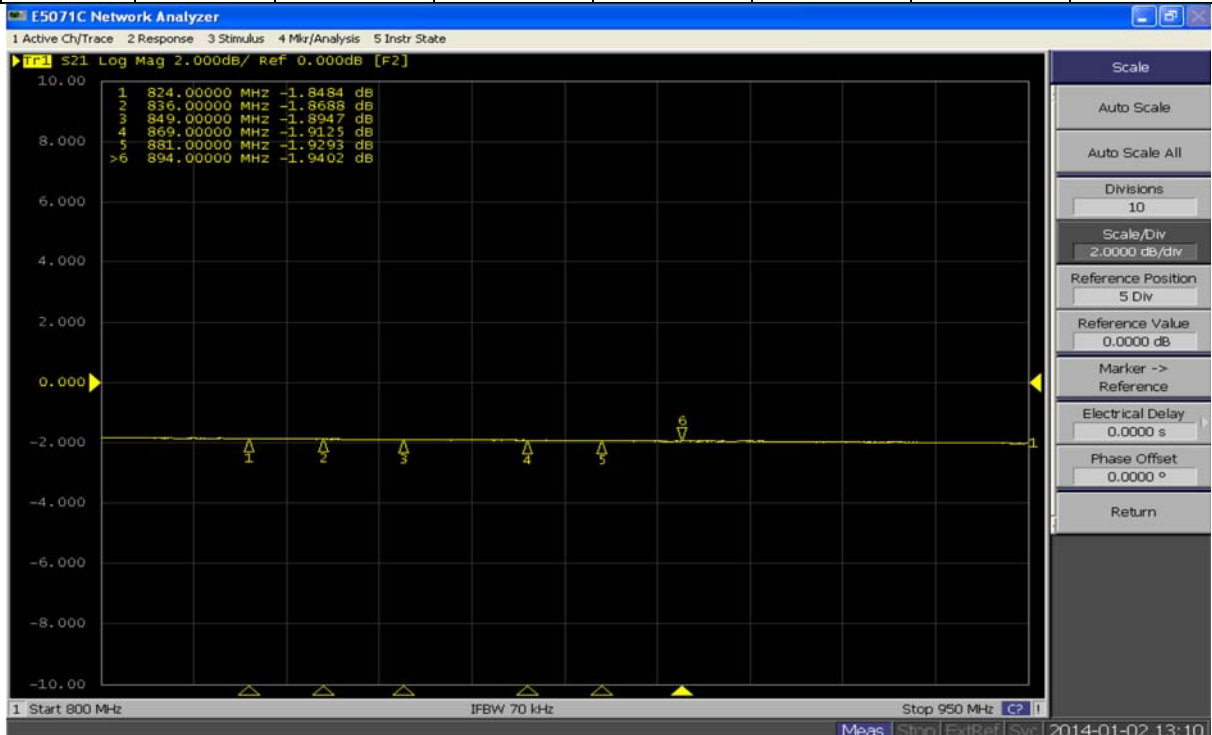
2) High Band RF cable loss
-    GSM1900/ WCDMA B2 (1850MHz ~ 1990MHz)

Band		GSM1900/WCDMA B2			
Frequency (MHz)		1850	1910	1930	1990
1.5m	I.L (dB)	-2.8762	-2.9696	-2.9474	-3.0094
3m	I.L (dB)	-5.7524	-5.9392	-5.8948	-6.0188
4.5m	I.L (dB)	-8.6286	-8.9088	-8.8422	-9.0282
6m	I.L (dB)	-11.5048	-11.8784	-11.7896	-12.0376

* **Note**

I.L : insurtion loss is the loss of signal power resulting from the insertion of a device in a transmission line or optical fiber and is usually expressed in decibels(dB).