# Copyright © Huawei Technologies Co., Ltd. 2012.

# All rights reserved.

No part of this document may be reproduced or transmitted in any form or by any means without prior written consent of Huawei Technologies Co., Ltd.

The product described in this manual may include copyrighted software of Huawei Technologies Co., Ltd and possible licensors. Customers shall not in any manner reproduce, distribute, modify, decompile, disassemble, decrypt, extract, reverse engineer, lease, assign, or sublicense the said software, unless such restrictions are prohibited by applicable laws or such actions are approved by respective copyright holders under licenses.

# **Trademarks and Permissions**



HUAWEI, HUAWEI, and See are trademarks or registered trademarks of Huawei Technologies

Other trademarks, product, service and company names mentioned are the property of their respective owners.

### Notice

Some features of the product and its accessories described herein rely on the software installed, capacities and settings of local network, and may not be activated or may be limited by local network operators or network service providers, thus the descriptions herein may not exactly match the product or its accessories you purchase.

Huawei Technologies Co., Ltd reserves the right to change or modify any information or specifications contained in this manual without prior notice or obligation.

THE CONTENTS OF THIS MANUAL ARE PROVIDED "AS IS". EXCEPT AS REQUIRED BY APPLICABLE LAWS, NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE MADE IN RELATION TO THE ACCURACY, RELIABILITY OR CONTENTS OF THIS

# MANUAL.

TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO CASE SHALL HUAWEI TECHNOLOGIES CO., LTD BE LIABLE FOR ANY SPECIAL, INCIDENTAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, OR LOST PROFITS, BUSINESS, REVENUE, DATA, GOODWILL OR ANTICIPATED SAVINGS.

# **Import and Export Regulations**

Customers shall comply with all applicable export or import laws and regulations and will obtain all necessary governmental permits and licenses in order to export, re-export or import the product mentioned in this manual including the software and technical data therein.

# **Contents**

Getting to Know the ME936	1
Installation	4
Safety Information	5

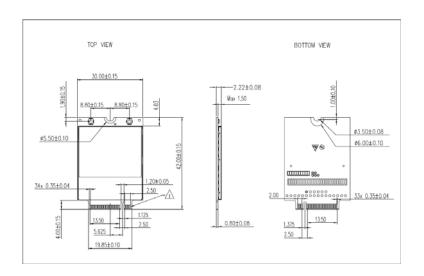
# Thank you for purchasing HUAWEI ME936 LTE Module (hereinafter referred to as the ME936)

#### Note:

- This manual briefly describes the preparation, Assembly and safety precautions.
- You are recommended to read the manual before using the ME936

# **Getting to Know the ME936**

The module is standard M.2 interface with a dimension of 30 mm  $\times$  42 mm  $\times$  2.3 mm. It is applied to the user interface board, and can be used as a wireless terminal in a network environment.





# 1. AUX/GPS Antenna interface

It is used to connect an antenna which for diversity and GPS

# 2. MAIN Antenna interface

It is used to connect an antenna which for main TX and RX

# 3. Fixing hole

A screw, metal fastener, and nut are used to fix an ME936 module on a development board through this fixing hole.

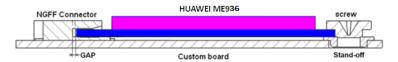
# 4. Gold Finger

It is connected to the M.2 connector on the development board.

# Note:

- In certain cases, your development board may be disassembled only by the professionals.
- Before you install the ME936 onto the development board, consult the development board manufacturer or read the user manual of the development board.

# **Installation Guide**



It refers to M.2 specification.

The module will need a mechanical retention at the end of the board. The module specifies a  $5.5\,$  mm Dia. keep out zone at the end for attaching a screw.

The module Stand-off and mounting screw also serve as part of the module Electrical Ground path. The Stand-off should be connected directly to the ground plane on the platform. So that when the module is mounted and the mounting screw is screwed on to hold the module in place, this will make the electrical ground connection from the module to the platform ground plane.

The stand-off must provide a Thermal Ground Path. The design requirements for thermal are a material with a minimum conductivity of 50 watts per meter Kelvin and surface area of 22 Sq mm.

# **Safety Information**

# **Warnings and Precautions**

This section contains important information pertaining to the operating instructions of your device. It also contains information about how to use your device safely. Read this information carefully before using the device.

#### **Electronic Device**

Do not use your device if using the device is prohibited. Do not use the device when using the device causes danger or interference with electronic devices.

#### Medical Device

- Follow rules and regulations set forth by hospitals and health care facilities. Do not use your device when using the device is prohibited.
- Some wireless devices may affect the performance of hearing aids or pacemakers. For any such problems, consult your service provider.
- If you are using an electronic medical device, consult the doctor or the device manufacturer to confirm whether radio waves affect the operation of this device.

### **Potentially Explosive Atmosphere**

Do not use your device in any area with a potentially explosive atmosphere, and comply with all signs and instructions. Areas that may have potentially explosive atmospheres include the areas where you would normally be advised to turn off your vehicle engine. Triggering of sparks in such areas could cause an explosion or a fire, resulting in bodily injuries or even deaths. Do not use your device at refueling points such as service stations. Comply with restrictions on the use of radio equipment in fuel depots, storage, and distribution areas, and chemical plants. In addition, adhere to restrictions in areas where blasting operations are in progress. Before using the device, watch out for areas that have potentially explosive

atmospheres that are often, but not always, clearly marked. Such locations include areas below the deck on boats, chemical transfer or storage facilities, and areas where the air contains chemicals or particles such as grain, dust, or metal powders. Ask the manufacturers of vehicles using liquefied petroleum gas (such as propane or butane) whether this device can be safely used in their vicinity.

### **Traffic Security**

- Observe local laws and regulations while using the device. To prevent accidents, do not use your wireless device while driving.
- RF signals may affect electronic systems of motor vehicles. For more information, consult the vehicle manufacturer.
- In a motor vehicle, do not place the device over the air bag or in the air bag deployment area. Otherwise, the device may hurt you owing to the strong force when the air bag inflates.
- Do not use your device while flying in an aircraft and before boarding an aircraft. Using
  wireless devices in an aircraft may cause danger to the operation of the aircraft and
  disrupt the wireless telephone network. It may also be considered illegal.

### **Operating Environment**

- Do not use the device in dusty, damp, and dirty places or places with magnetic fields.
   Otherwise, it may result in malfunction of the circuit.
- On a stormy day with thunder, do not use your device when it is being charged, to prevent any danger caused by lightning.
- While using the device, observe the local laws and regulations, and respect others' privacy and legal rights.

### Safety of Children

Comply with all precautions with regard to children's safety. Letting the child play with your device or its accessories, which may include parts that can be detached from the device, may be dangerous, as it may present a choking hazard. Ensure that small children are kept away from the device and accessories.

#### Accessories

Use the accessories delivered only by the manufacturer. Using accessories of other

manufacturers or vendors with this device model may invalidate any approval or warranty applicable to the device, result in the non-operation of the device, and cause danger.

# **Cleaning and Maintenance**

It is normal that your wireless device gets hot when you use or charge it. Before you clean or maintain the wireless device, stop all applications and disconnect the wireless device from your PC.

- Use your wireless device and accessories with care and in a clean environment. Keep
  the wireless device away from a fire or a lit cigarette.
- Protect your wireless device and accessories from water and vapor, and keep them dry.
- Do not drop, throw, or bend your wireless device.
- Clean your wireless device with a piece of damp and soft antistatic cloth. Do not use any
  chemical detergent, powder, or other chemical agents (such as alcohol and benzene) to
  clean the device.

# FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

- Note 1: This module has been certified to comply with RF exposure requirements under mobile or fixed condition, this module is to be installed only in mobile or fixed applications. The system antenna(s) used for this module must not exceed 2.5dBi.
- The transmitter module may not be co-located with any other transmitter or antenna. The FCC ID label on the final system must be labeled with "Contains FCC ID: QISME936
- As long as the above conditions are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed. To ensure compliance with all non-transmitter functions the host manufacturer is responsible for ensuring compliance with the module(s) installed and fully operational. For example, if a host was previously authorized as an unintentional radiator under the Declaration of Conformity procedure without a transmitter certified module and a module is added, the host manufacturer is responsible for ensuring that the after the module is installed and

- operational the host continues to be compliant with the Part 15B unintentional radiator
- In case the conditions specified above cannot be met, the FCC authorization would no longer be considered valid and the FCC ID could not be used on the final product. Under these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter (s)) and obtaining a separate FCC authorization. Additional tests for compliance with RF Exposure compliance (i.e. portable applications) and transmitter / host specific tests could be required.
- Note 2: Any modifications made to the module will void the Grant of Certification, this module is limited to OEM installation only and must not be sold to end-users, end-user has no manual instructions to remove or install the device, only software or operating procedure shall be placed in the end-user operating manual of final products.
- Note 3: The device must not transmit simultaneously with with any other antenna or transmitter.
- Note 4: The transmitter module must be installed and used in strict accordance with the manufacturer's instructions as described in the user documentation that comes with the host product.

# **FCC Statement**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

La distance d'installation et d'opération entre le radiateur et votre corps de chaque équipement doit être au minimum 20cm.

15.19

NOTICE:

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.

15 21

NOTICE:

Changes or modifications made to this device not expressly approved by Huawei Technologies Co., Ltd. may void the FCC authorization to operate this device.

NOTE:

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This device generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this device does cause harmful interference to radio or television reception, which can be determined by connecting or disconnecting the device to a PC, the user is encouraged to try to correct the interference by adopting one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the distance between the device and the receiver.
- Connect the device to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.
- This device is intended for OEM integrators only.
- Host system must be labeled with "Contains FCC ID: QISME936", FCC ID displayed on

# **Industry Canada Compliance**

This device complies with Industry Canada. The Class B digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la class B est conforme à la norme NMB-003 du Canada. In the United States and Canada,. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements.