



Telit WHQL Drivers Installer User Guide

1VV0301360 Rev. 11 – 2021-01-26

TELIT
TECHNICAL
DOCUMENTATION

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

NOTICES LIST

While reasonable efforts have been made to assure the accuracy of this document, Telit assumes no liability resulting from any inaccuracies or omissions in this document, or from use of the information obtained herein. The information in this document has been carefully checked and is believed to be reliable. However, no responsibility is assumed for inaccuracies or omissions. Telit reserves the right to make changes to any products described herein and reserves the right to revise this document and to make changes from time to time in content hereof with no obligation to notify any person of revisions or changes. Telit does not assume any liability arising out of the application or use of any product, software, or circuit described herein; neither does it convey license under its patent rights or the rights of others.

It is possible that this publication may contain references to, or information about Telit products (machines and programs), programming, or services that are not announced in your country. Such references or information must not be construed to mean that Telit intends to announce such Telit products, programming, or services in your country.

COPYRIGHTS

This instruction manual and the Telit products described in this instruction manual may be, include or describe copyrighted Telit material, such as computer programs stored in semiconductor memories or other media. Laws in the Italy and other countries preserve for Telit and its licensors certain exclusive rights for copyrighted material, including the exclusive right to copy, reproduce in any form, distribute and make derivative works of the copyrighted material. Accordingly, any copyrighted material of Telit and its licensors contained herein or in the Telit products described in this instruction manual may not be copied, reproduced, distributed, merged or modified in any manner without the express written permission of Telit. Furthermore, the purchase of Telit products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Telit, as arises by operation of law in the sale of a product.

COMPUTER SOFTWARE COPYRIGHTS

The Telit and 3rd Party supplied Software (SW) products described in this instruction manual may include copyrighted Telit and other 3rd Party supplied computer programs stored in semiconductor memories or other media. Laws in the Italy and other countries preserve for Telit and other 3rd Party supplied SW certain exclusive rights for copyrighted computer programs, including the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Telit or other 3rd Party supplied SW computer programs contained in the Telit products described in this instruction manual may not be copied (reverse engineered) or reproduced in any manner without the express written permission of Telit or the 3rd Party SW supplier. Furthermore, the purchase of Telit products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Telit or other 3rd Party supplied SW, except for the normal non-exclusive, royalty free license to use that arises by operation of law in the sale of a product.

USAGE AND DISCLOSURE RESTRICTIONS

I. License Agreements

The software described in this document is the property of Telit and its licensors. It is furnished by express license agreement only and may be used only in accordance with the terms of such an agreement.

II. Copyrighted Materials

Software and documentation are copyrighted materials. Making unauthorized copies is prohibited by law. No part of the software or documentation may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language or computer language, in any form or by any means, without prior written permission of Telit

III. High Risk Materials

Components, units, or third-party products used in the product described herein are NOT fault-tolerant and are NOT designed, manufactured, or intended for use as on-line control equipment in the following hazardous environments requiring fail-safe controls: the operation of Nuclear Facilities, Aircraft Navigation or Aircraft Communication Systems, Air Traffic Control, Life Support, or Weapons Systems (High Risk Activities"). Telit and its supplier(s) specifically disclaim any expressed or implied warranty of fitness for such High Risk Activities.

IV. Trademarks

TELIT and the Stylized T Logo are registered in Trademark Office. All other product or service names are the property of their respective owners.

V. Third Party Rights

The software may include Third Party Right software. In this case you agree to comply with all terms and conditions imposed on you in respect of such separate software. In addition to Third Party Terms, the disclaimer of warranty and limitation of liability provisions in this License shall apply to the Third Party Right software.

TELIT HEREBY DISCLAIMS ANY AND ALL WARRANTIES EXPRESS OR IMPLIED FROM ANY THIRD PARTIES REGARDING ANY SEPARATE FILES, ANY THIRD PARTY MATERIALS INCLUDED IN THE SOFTWARE, ANY THIRD PARTY MATERIALS FROM WHICH THE SOFTWARE IS DERIVED (COLLECTIVELY "OTHER CODE"), AND THE USE OF ANY OR ALL THE OTHER CODE IN CONNECTION WITH THE SOFTWARE, INCLUDING (WITHOUT LIMITATION) ANY WARRANTIES OF SATISFACTORY QUALITY OR FITNESS FOR A PARTICULAR PURPOSE.

NO THIRD PARTY LICENSORS OF OTHER CODE SHALL HAVE ANY LIABILITY FOR ANY DIRECT, INDIRECT, INCIDENTAL, SPECIAL, EXEMPLARY, OR CONSEQUENTIAL DAMAGES (INCLUDING WITHOUT LIMITATION LOST PROFITS), HOWEVER CAUSED AND WHETHER MADE UNDER CONTRACT, TORT OR OTHER LEGAL THEORY, ARISING IN ANY WAY OUT OF THE USE OR DISTRIBUTION OF THE OTHER CODE OR THE EXERCISE OF ANY RIGHTS GRANTED UNDER EITHER OR BOTH THIS LICENSE AND THE LEGAL TERMS APPLICABLE TO ANY SEPARATE FILES, EVEN IF ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

APPLICABILITY TABLE

PRODUCTS

- ATOP 3.5G
- CE910 SERIES
- DE910 SERIES
- FN980 SERIES
- GE910 SERIES
- HE910 SERIES
- LE866 SERIES
- LE910 SERIES
- LE910 V2 SERIES
- LE910C1 SERIES
- LE910C1-EUX SERIES
- LE910C4 SERIES
- LE910D1 SERIES
- LE920 SERIES
- LE920A4 SERIES
- LE922A6 SERIES
- LE940B6 SERIES
- LM940 SERIES
- LM960 SERIES
- LN920 SERIES
- ME910C1 SERIES
- MEX10G1 SERIES
- UE910 SERIES
- UL865 SERIES

OPERATING SYSTEMS

Windows 10

x86, x64

INSTALLER VERSION

Msi: 2.13.0000

CONTENTS

NOTICES LIST	2
COPYRIGHTS	2
COMPUTER SOFTWARE COPYRIGHTS	2
USAGE AND DISCLOSURE RESTRICTIONS	3
I. License Agreements	3
II. Copyrighted Materials	3
III. High Risk Materials	3
IV. Trademarks	3
V. Third Party Rights	3
APPLICABILITY TABLE	4
CONTENTS	5
1. INTRODUCTION	6
1.1. Scope	6
1.2. Audience.....	6
1.3. Contact Information, Support	6
1.4. Text Conventions	7
1.5. Related Documents	7
2. TELIT WHQL DRIVERS INSTALLER	8
2.1. Installer Details	8
2.2. How to use the installer.....	8
2.2.1. Attended installation	8
2.2.2. Unattended installation	8
2.3. USB compositions with network interface	9
2.4. Avoid COM port proliferation.....	9
3. SUPPORTED MODEMS BY PRODUCT IDS	10
3.1. List of Product IDs	10
4. APPENDIX A: FEATURES LIST	13
4.1. Features List.....	13
5. GLOSSARY AND ACRONYMS	14
6. DOCUMENT HISTORY	15

1. INTRODUCTION

1.1. Scope

Scope of this document is to give an overview of Telit Windows WHQL Drivers Installer.

1.2. Audience

This document is addressed to users of Telit modems with Windows 10 operating system that need WHQL certified drivers.

1.3. Contact Information, Support

For general contact, technical support services, technical questions and report documentation errors contact Telit Technical Support at:

- TS-EMEA@telit.com
- TS-AMERICAS@telit.com
- TS-APAC@telit.com
- TS-SRD@telit.com (for Short Range Devices)

Alternatively, use:

<http://www.telit.com/support>

For detailed information about where you can buy the Telit modules or for recommendations on accessories and components visit:

<http://www.telit.com>

Our aim is to make this guide as helpful as possible. Keep us informed of your comments and suggestions for improvements.

Telit appreciates feedback from the users of our information.

1.4. Text Conventions



Danger – This information **MUST** be followed or catastrophic equipment failure or bodily injury may occur.



Caution or Warning – Alerts the user to important points about integrating the module, if these points are not followed, the module and end user equipment may fail or malfunction.



Tip or Information – Provides advice and suggestions that may be useful when integrating the module.

All dates are in ISO 8601 format, i.e. YYYY-MM-DD.

1.5. Related Documents

AT Commands User Guide of the modem in use

2. TELIT WHQL DRIVERS INSTALLER

2.1. Installer Details

Telit provides two different installers according to the architecture of the host system:

- **x86:** Telit WHQL Drivers x86
Upgrade code: {1585B625-2BED-43F5-A17E-34DBCFCB6C53A}
Product code: {D01C1204-D7C2-4A6A-A01C-CD924CF3D901}
- **x64:** Telit WHQL Drivers x64
Upgrade code: {0CCC495A-8F6D-43F2-997F-6DF5F564EEEEB}
Product code: {BA368563-BF8D-4215-BA49-1F829A82328C}



All previous Telit drivers installation with a different Upgrade Code (namely those belonging to the 1.00.xy – UF.00.xy series should be manually uninstalled before installing this package.

2.2. How to use the installer

Telit WHQL Drivers Installer supports both attended and unattended installation processes. Administrative rights are required to install the package.

2.2.1. Attended installation

Run the installer package and, after the welcome screen, choose the preferred installation choice:

- **Complete:** all the drivers are installed.
- **Custom:** only the selected drivers are installed.

Click the *Next* button to start the installation.

2.2.2. Unattended installation

Type the following line to install all the drivers:

```
msiexec /i <package name> /qn
```

e.g.

```
msiexec /i Telit_WHQL_Drivers_x64.msi /qn
```

To install a subset of drivers type:

```
msiexec /i <package name> /qn ADDLOCAL=<features set>
```

e.g.

```
msiexec /i Telit_WHQL_Drivers_x64.msi /qn ADDLOCAL=FlashUSB
```

Appendix A lists all the available features.

2.3. USB compositions with network interface

Some USB compositions present a network interface that can be used for establishing a data connection.

When the data connection is up it is possible that the USB network interface conflicts with other network interfaces already available in the operating system: Windows network configuration should be managed in order to have all the interfaces coexist properly.

2.4. Avoid COM port proliferation

When modems with different serial numbers are plugged into the same host system, a new set of serial ports will be created. In order to avoid this behavior and reuse the same port numbers the registry should be modified according to the file

`usb_xhci_avoid_COM_port_proliferation.reg` whose default location is:

`C:\Program Files (x86)\Telit\WHQLDrivers`

In order to avoid COM port proliferation:

- If already installed, from Device Manager uninstall all devices for which COM port proliferation should be avoided.
- Verify that the module is not connected to the host.
- Customize the registry according to the instructions in the file.
- Double click on the customized registry file and accept to modify registry.
- Connect the module.



Please note that these keys modify a Windows behavior and they are not strictly related to Telit drivers. Not all the host controllers support this feature, so they can be ineffective. Further information in [Microsoft Hardware Dev Center](#).

3. SUPPORTED MODEMS BY PRODUCT IDS

3.1. List of Product IDs

Following a list of Product IDs (PIDs) supported by this drivers installer.

If a composition requires an inbox driver, the device name is reported. Inbox drivers are not installed by Telit installer, but belong natively to the operating system.

For details on the composition please refer to the AT Commands User Guide of the modem in use.

Product ID	Inbox driver
0x0021	N/A
0x0022	N/A
0x0023	N/A
0x0024	N/A
0x0025	N/A
0x0032	MBIM
0x0035	N/A
0x0036	N/A
0x0037	N/A
0x0100	N/A
0x1000	N/A
0x1001	N/A
0x1002	N/A
0x1003	N/A
0x1004	N/A
0x1005	N/A
0x1006	N/A
0x1010	N/A
0x1011	MBIM
0x1012	N/A
0x1013	N/A
0x1014	N/A
0x1015	N/A

0x1017	N/A
0x1018	N/A
0x1019	N/A
0x101B	MBIM
0x1031	N/A
0x1032	N/A
0x1034	N/A
0x1036	N/A
0x1040	MBIM
0x1041	MBIM
0x1042	RNDIS
0x1044	MBIM
0x1045	RNDIS
0x1050	N/A
0x1051	MBIM
0x1052	RNDIS
0x1054	N/A
0x1055	N/A
0x1060	N/A
0x1061	MBIM
0x1062	RNDIS
0x1100	N/A
0x1101	N/A
0x110A	N/A
0x1200	N/A
0x1201	N/A
0x1203	RNDIS
0x1204	MBIM
0x1205	MBIM
0x1207	N/A

0x1212	N/A
0x1216	N/A
0x1217	MBIM
0x1221	N/A
0x1222	N/A
0x1223	N/A
0x1227	N/A
0x1228	N/A
0x1250	N/A
0x1251	RNDIS
0x1252	MBIM
0x1254	N/A
0x1255	N/A
0x1260	N/A
0x1261	N/A
0x1262	N/A
0x1400	N/A
0x1401	N/A
0x2300	RNDIS

4. APPENDIX A: FEATURES LIST

4.1. Features List

Following the list of features exposed by the installer related to the drivers functionality.

Feature	Functionality
ACM	Serial ports (requires MultipleInterface)
ECM	ECM network interface (requires MultipleInterface)
FlashUSB	Flashing device
ModemACM	Modem (requires MultipleInterface)
MultipleInterface	Composite device
NCM	NCM network interface (requires MultipleInterface)
Filter	Composite device
wwan	Rmnet Mobile Broadband Adapter (requires Filter)
Serial	Serial ports (requires Filter)
Modem	Modem (requires Filter)
adb	Android debug bridge (requires Filter)
InboxComposite	Inbox composite device
InboxRNDIS	Inbox RNDIS network interface
InboxACM	Inbox ACM serial ports
qdbus	Logging device
Tools	qcmtusvc for proper MTU setting with Qualcomm modems
Registry	Registry keys to avoid port proliferation

5. GLOSSARY AND ACRONYMS

ACM	Abstract Control Model
ECM	Ethernet Control Model
NCM	Network Control Model
USB	Universal Serial Bus
WHQL	Windows Hardware Quality Labs
MBIM	Mobile Broadband Interface Model
RNDIS	Remote Network Device Interface Specification

6. DOCUMENT HISTORY

Revision	Date	Changes
0	2017-02-24	<ul style="list-style-type: none"> • First release
1	2017-12-19	<ul style="list-style-type: none"> • Added support for new PIDs
2	2018-05-18	<ul style="list-style-type: none"> • Added support for new LE910C1 PIDs
3	2018-09-14	<ul style="list-style-type: none"> • Updated msi installers product codes
4	2019-03-22	<ul style="list-style-type: none"> • Added support for compositions 0x1260 and 0x1261 • Updated msi installers version and product codes
5	2019-07-12	<ul style="list-style-type: none"> • Added 0x1250, 0x1251, 0x1252 and 0x110A compositions support
6	2019-12-09	<ul style="list-style-type: none"> • Added ME310, LE910X1 in the Applicability Table. • Added support for composition 0x1054 • Updated msi installers product codes
7	2020-03-13	<ul style="list-style-type: none"> • Changed Applicability Table • Added paragraph 2.4 • Added qdbus feature
8	2020-09-17	<ul style="list-style-type: none"> • Added support for composition 0x1055, 0x1034, 0x1036
9	2020-11-13	<ul style="list-style-type: none"> • Added Tools and Registry features • Updated msi installers product codes for version 2.11.0000
10	2020-12-16	<ul style="list-style-type: none"> • Added support for composition 0x1262 • Updated msi installers product codes for version 2.12.0000
11	2021-01-26	<ul style="list-style-type: none"> • Added LN920 to Applicability Table • Added support for compositions 0x1060, 0x1061, 0x1062

Revision	Date	Changes
		<ul style="list-style-type: none"> Updated msi installers product codes for version 2.13.0000



SUPPORT INQUIRIES

Link to www.telit.com and contact our technical support team for any questions related to technical issues.

www.telit.com



Telit Communications S.p.A.
Via Stazione di Prosecco, 5/B
I-34010 Sgonico (Trieste), Italy

Telit IoT Platforms LLC
5300 Broken Sound Blvd, Suite 150
Boca Raton, FL 33487, USA

Telit Wireless Solutions Inc.
3131 RDU Center Drive, Suite 135
Morrisville, NC 27560, USA

Telit Wireless Solutions Co., Ltd.
8th FL., Shinyoung Securities Bld.
6, Gukjegeumyung-ro8-gil, Yeongdeungpo-gu
Seoul, 150-884, Korea

Telit Wireless Solutions Ltd.
10 Habarzel St.
Tel Aviv 69710, Israel

Telit Wireless Solutions
Tecnologia e Servicos Ltda
Avenida Paulista, 1776, Room 10.C
01310-921 São Paulo, Brazil

Telit reserves all rights to this document and the information contained herein. Products, names, logos and designs described herein may in whole or in part be subject to intellectual property rights. The information contained herein is provided "as is". No warranty of any kind, either express or implied, is made in relation to the accuracy, reliability, fitness for a particular purpose or content of this document. This document may be revised by Telit at any time. For most recent documents, please visit www.telit.com

Copyright © 2016, Telit