



# Telit WHQL Drivers Installer

Software User Guide

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# 1 Applicability Table

Table 1: Applicability Table for Telit Products

Products
ATOP 3.5G
CE910 SERIES
DE910 SERIES
FD980 SERIES
FE910C04 SERIES
FE912C04 SERIES
FE990 SERIES
FE990B40 SERIES
FN920 SERIES
FN920C04 SERIES
FN980 SERIES
FN990 SERIES
FN990B40 SERIES
GE910 SERIES
HE910 SERIES
LE866 SERIES
LE910 SERIES
LE910 V2 SERIES
LE910C1 SERIES
LE910C1-EUX SERIES
LE910C4 SERIES
LE910D1 SERIES
LE910S1 SERIES
LE910R1 SERIES
LE920 SERIES
LE920A4 SERIES
LE922A6 SERIES
LE940B6 SERIES
LM940 SERIES
LM960 SERIES
LN920 SERIES
ME910C1 SERIES
MEx10G1 SERIES
ML865G1 SERIES
SE250 SERIES
UE910 SERIES
UL865 SERIES

Table 2: Applicability Table for Cinterion Products

Products
PVR81

## 2 Introduction

### 2.1 Scope

This document describes Windows 10 WHQL Drivers Installer. All the features and solutions described in this document apply to all the variants listed in the applicability table.

### 2.2 Audience

This document is intended for Telit customers, who need to use Telit products with Windows 10 operating system.

### 2.3 Contact Information, Support

For technical support and general questions, e-mail:

- [TS-EMEA@telit.com](mailto:TS-EMEA@telit.com)
- [TS-AMERICAS@telit.com](mailto:TS-AMERICAS@telit.com)
- [TS-APAC@telit.com](mailto:TS-APAC@telit.com)
- [TS-SRD@telit.com](mailto:TS-SRD@telit.com)
- [TS-ONEEDGE@telit.com](mailto:TS-ONEEDGE@telit.com)

Alternatively, use: <https://www.telit.com/contact-us/>

Product information and technical documents are accessible 24/7 on our website:  
<https://www.telit.com>

### 2.4 Conventions

**Note:** Provide advice and suggestions that may be useful when integrating the module.

**Danger:** This information MUST be followed, or catastrophic equipment failure or personal injury may occur.

**ESD Risk:** Notifies the user to take proper grounding precautions before handling the product.

**Warning:** Alerts the user on important steps about the module integration.

All dates are in ISO 8601 format, that is YYYY-MM-DD.

## 2.5 Terms and conditions

Refer to <https://www.telit.com/hardware-terms-conditions/>.

## 2.6 Disclaimer

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## 3 Telit WHQL Drivers Installer

### 3.1 Installer Details

This document covers Telit WHQL Drivers Installer version **2.22.0005**.

Telit provides the following installer:

- **amd64:** Telit WHQL Drivers for amd64 architecture
  - **Upgrade Code:** {0CCC495A-8F6D-43F2-997F-6DF5F564EEEE }
  - **Product Code:** {DBD78813-1769-4232-A74D-A939BC0E6F19}

**Warning:** the x86 package is no longer supported.

### 3.2 How to Use the Installer

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

#### 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.

#### Unattended Installation

- Type the following line to install all the drivers:

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

Example

```
> msixexec /i Telit_WHQL_Drivers_x64.msi /qn
```

- To install a subset of drivers type:

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

Example

```
> msixexec /i Telit_WHQL_Drivers_x64.msi /qn ADDLOCAL=FlashUSB
```

#### 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, the USB network interface could conflict with other network interfaces already available in the operating system: Windows network configuration should be managed to have all the interfaces coexist properly.

## 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. To avoid this behavior and reuse the same port numbers the registry should be modified according to the file.

```
C:\Program Files  
(x86)\Telit\WHQLDrivers\usb_xhci_avoid_COM_port_proliferation.reg
```

To avoid COM port proliferation:

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

**Warning:** These keys modify a Windows behaviour 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](#).

## 4 Supported Modems by Product ID

### 4.1 Table of Telit Product IDs

Following is a list of Telit Product IDs (PIDs) supported by the installer (VID 0x1bc7).

When a composition requires an inbox driver, the device type is reported. Inbox drivers are not installed by Telit installers since they belong natively to the operating system.

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

Table 3: Supported Telit PIDs

Product ID	Inbox Driver	Selective Suspend
0x0021	N/A	N
0x0022	N/A	N
0x0023	N/A	N
0x0024	N/A	N
0x0025	N/A	N
0x0032	MBIM	N
0x0035	N/A	N
0x0036	N/A	N
0x0037	N/A	N
0x0100	N/A	N
0x1000	N/A	N
0x1001	N/A	N
0x1002	N/A	N
0x1003	N/A	N
0x1004	N/A	N
0x1005	N/A	N
0x1006	N/A	N
0x1010	N/A	N
0x1011	MBIM	N
0x1012	N/A	N
0x1013	N/A	N
0x1014	N/A	N
0x1015	N/A	N
0x1017	N/A	N
0x1018	N/A	N
0x1019	N/A	N
0x101B	MBIM	N
0x1031	N/A	N
0x1032	N/A	N
0x1034	N/A	N
0x1036	N/A	N
0x1037	N/A	N



Product ID	Inbox Driver	Selective Suspend
0x1038	N/A	N
0x103A	N/A	N
0x103B	N/A	N
0x103C	N/A	N
0x1040	N/A	N
0x1041	MBIM	N
0x1042	RNDIS	N
0x1044	MBIM	N
0x1045	RNDIS	N
0x1050	N/A	N
0x1051	MBIM	N
0x1052	RNDIS	N
0x1054	N/A	N
0x1055	N/A	N
0x1056	RNDIS	N
0x1057	N/A	N
0x1058	N/A	N
0x1060	N/A	N
0x1061	MBIM	N
0x1062	RNDIS	N
0x1066	MBIM	N
0x1067	MBIM	N
0x1070	N/A	N
0x1071	MBIM	N
0x1072	RNDIS	N
0x1074	MBIM	N
0x1075	N/A	N
0x1076	N/A	N
0x1077	N/A	N
0x1078	MBIM	N
0x1079	RNDIS	N
0x1080	N/A	N
0x1081	MBIM	N
0x1082	RNDIS	N
0x1084	MBIM	N
0x1085	N/A	N
0x1086	N/A	N
0x1095	N/A	N
0x10A0	N/A	N
0x10A1	RNDIS	N
0x10A2	MBIM	N
0x10A3	N/A	N
0x10A4	N/A	N

Product ID	Inbox Driver	Selective Suspend
0x10A5	N/A	N
0x10A6	MBIM	N
0x10A7	N/A	N
0x10A8	N/A	N
0x10A9	MBIM	N
0x10AA	MBIM	N
0x10AB	RNDIS	N
0x10B0	N/A	N
0x10B1	MBIM	N
0x10B2	RNDIS	N
0x10B5	N/A	N
0x10C0	N/A	N
0x10C1	RNDIS	N
0x10C2	MBIM	N
0x10C3	N/A	N
0x10C4	N/A	N
0x10C5	RNDIS	N
0x10C6	MBIM	N
0x10C7	N/A	N
0x10C8	N/A	N
0x10C9	MBIM	N
0x10CA	N/A	N
0x10CB	RNDIS	N
0x1100	N/A	N
0x1101	N/A	N
0x110A	N/A	N
0x1200	N/A	N
0x1201	N/A	N
0x1203	RNDIS	N
0x1204	MBIM	N
0x1205	MBIM	N
0x1207	N/A	N
0x1212	N/A	N
0x1216	N/A	N
0x1217	N/A	N
0x1221	N/A	N
0x1222	N/A	N
0x1223	N/A	N
0x1227	N/A	N
0x1228	N/A	N
0x1250	N/A	N
0x1251	RNDIS	N
0x1252	MBIM	N

Product ID	Inbox Driver	Selective Suspend
0x1254	N/A	N
0x1255	N/A	N
0x1260	N/A	N
0x1261	N/A	N
0x1262	N/A	N
0x1400	N/A	N
0x1401	N/A	N
0x1980	RNDIS	N
0x1981	N/A	N
0x1982	RNDIS	N
0x2300	RNDIS	N
0x7010	RNDIS	N
0x3000	N/A	N
0x3001	N/A	N
0x701A	RNDIS	N
0x8000	MBIM	N
0x800A	N/A	N

## 4.2 Table of Cinterion Product IDs

Following a list of Cinterion Product IDs (PIDs) supported by the installer (VID 0x1e2d).

When a composition requires an inbox driver, the device type is reported. Inbox drivers are not installed by Telit installers since they belong natively to the operating system.

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

Table 4: Supported Cinterion PIDs

Product ID	Inbox Driver	Selective Suspend
0x0100	CDC ACM	N
0x0102	CDC ACM, RNDIS	N
0x0103	CDC ACM, MBIM	N
0x0104	CDC ACM	N
0x0105	CDC ACM, MBIM	N
0x9008	N/A	N
0x900E	N/A	N



## 5 Features

Following the list of features exposed by the installer.

Table 5: Features

Feature	Description
MultipleInterface	Composite device driver for Intel-based modems
ACM	Serial port driver for Intel-based modems (requires MultipleInterface)
ECM	ECM network interface driver for Intel-based modems (requires MultipleInterface)
FlashUSB	Flashing device driver for Intel-based modems
ModemACM	Modem driver for Intel-based modems (requires MultipleInterface)
NCM	NCM network interface driver for Intel-based modems (requires MultipleInterface)
Filter	Composite device driver for Qualcomm-based modems
Wwan	Rmnet mobile broadband adapter driver for Qualcomm-based modems (requires Filter)
Serial	Serial port driver for Qualcomm-based modems (requires Filter)
Modem	Modem driver for Qualcomm-based modems (requires Filter)
Qcadb	Android debug bridge driver for Qualcomm-based modems (requires Filter)
qdbusb	Logging device driver for Qualcomm-based modems (requires Filter)
InboxComposite	Inbox composite device driver
InboxRNDIS	Inbox RNDIS network interface driver
InboxACM	Inbox serial port driver
Tools	Qualcomm MTU service
Registry	Registry example to avoid COM port proliferation
ASRSerial	Serial port driver for ASR-based modems
ASRModem	Modem driver for ASR-based modems
ASRDiag	Diagnostic device driver for ASR-based modems

## 6 Troubleshooting

### 6.1 Debug information retrieval

When contacting customer support for help on troubleshooting issues, please make sure to carefully describe the scenario and provide the following logs:

```
msiexec log output with /l*v option
```

**Note:** To facilitate support, please follow these guidelines:

- Provide a brief description of the scenario captured in the logs.
- Do not mix different issues in a single log.

## 7 Acronyms and Abbreviations

Table 6: Acronyms and Abbreviations

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

## 8 Related Documents

Refer to <https://dz.telit.com/> for current documentation and downloads.



## 9 Document History

Table 7: Document History

Revision	Date	Changes
22	2024-02-29	<p>Added x86 package deprecation statement.</p> <p>Added FE910C04 to Applicability Table</p> <p>Added FE912C04 to Applicability Table</p> <p>Added FN920C04 to Applicability Table</p> <p>Added FE990B40 to Applicability Table</p> <p>Added FE910C04 PIDs 0x10C0, 0x10C1, 0x10C2, 0x10C3, 0x10C4, 0x10C5, 0x10C6, 0x10C7, 0x10C8, 0x10C9, 0x10CA, 0x10CB</p> <p>Added FE912C04 PIDs 0x3000, 0x3001</p> <p>Added FE920C04 PIDs 0x10A0, 0x10A1, 0x10A2, 0x10A3, 0x10A4, 0x10A5, 0x10A6, 0x10A7, 0x10A8, 0x10A9, 0x10AA, 0x10AB</p> <p>Added FE990B40 PIDs 0x10B0, 0x10B1, 0x10B2, 0x10B5</p> <p>Added Cinterion products Applicability Table with PVR81</p> <p>Added paragraph "4.2 Table of Cinterion Product IDs" with compositions 0x0100, 0x0102, 0x0103, 0x0104, 0x0105, 0x9008, 0x900E</p> <p>Updated "Selective Suspend" column in Table 3 for specific PIDs.</p>
21	2023-10-25	<p>Added LN920 PID 0x1067</p> <p>Added FE990 PIDs 0x1077, 0x1078, 0x1079</p> <p>Added FN920 to Applicability Table</p> <p>Added FN920 PID 0x10A5</p> <p>Added FN990B40 to Applicability Table</p> <p>Added FN990B40 PID 0x1095</p> <p>Added SE250 to Applicability Table</p> <p>Added SE250 PIDs 0x1980, 0x1981, 0x1982</p>
20	2023-05-26	Template Upgrade
19	2023-05-17	<p>Added FE990 PIDs 0x1080, 0x1081, 0x1082, 0x1084, 0x1085, 0x1086</p> <p>Added FN990 PIDs 0x1074, 0x1076</p> <p>Added column "Selective Suspend" to Table 2</p> <p>Changed feature "adb" to "qcadb" in Table 3</p> <p>Updated MSI installers version and product codes</p>
18	2022-11-22	<p>Added LE910Cx Thread-x PID 0x103A, 0x103B, 0x103C</p> <p>Updated MSI installers version and product codes</p>
17	2022-04-26	<p>Added LN920 PID 0x1066</p> <p>Updated MSI installers version and product codes</p>
16	2022-03-01	<p>Added LE910R1 to Applicability Table</p> <p>Added FN990 PCI UDE composition 0x800A</p> <p>Added LE910R1 PID 0x701A</p> <p>Added FN980 composition 0x1058</p>



Revision	Date	Changes
		Updated MSI installers version and product codes
15	2021-11-29	Added FN990 compositions 0x1070, 0x1071, 0x1072, 0x1075 Added FN980 composition 0x1057 Updated MSI installers version and product codes
14	2021-09-01	Added LE910S1 compositions 0x1037, 0x1038 Added PCI UDE composition 0x8000 Updated MSI installers version and product codes
13	2021-08-12	Updated MSI installers version and product codes
12	2021-04-19	Added FD980 and LE910S1 to Applicability Table Added support for compositions 0x1056 and 0x7010 Added ASRModem, ASRSerial, and ASRDiag Features Updated MSI installers version and product codes
11	2021-01-26	Added LN920 to Applicability Table Added support for compositions 0x1060, 0x1061, 0x1062 Updated MSI installers version and product codes
10	2020-12-16	Added support for composition 0x1262 Updated MSI installers version and product codes
9	2020-11-13	Added Tools and Registry Features Updated MSI installers version and product codes
8	2020-09-17	Added support for compositions 0x1055, 0x1034 and 0x1036 Updated MSI installers version and product codes
7	2020-03-13	Changed Applicability Table Added paragraph 2.4 Added qdbus Feature Updated MSI installers version and product codes
6	2019-12-09	Added ME310 and LE910x1 in the Applicability Table Added support for composition 0x1054 Updated MSI installers version and product codes
5	2019-07-12	Added support for compositions 0x1250, 0x1251, 0x1252 and 0x110A
4	2019-03-22	Added support for compositions 0x1260 and 0x1261 Updated MSI installers version and product codes
3	2018-09-14	Updated MSI installer product codes
2	2018-05-18	Added support for new LE910C1 PIDs
1	2017-12-19	Added support for new PIDs
0	2017-02-24	First issue

From Mod.0818 Rev.11

