

BLUETECHNIX
Embedding Ideas

MTK-USB Evaluation-Kit TIM-UP-19k- S3-Spartan6



Quick Start Guide

Version 1

Bluetechnix

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MTK USB Evaluation KIT-Quick Start Guide

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Information

For further information on technology, delivery terms and conditions and prices please contact Bluetechnix (<http://www.bluetechnix.com>).

Warning

Due to technical requirements components may contain dangerous substances.

1 Unboxing

1.1 In the box

- MTK-USB Evaluation-Kit
- USB Cable
- Quick Start Guide
- Customer Software Package CD
- Power Supply *
- Mains cable (Kaltgerätekabel)
- Tripod

*** Note**

The power supply's operating temperature is specified from 0 to +40°C. This represents not the effective working temperature of the MTK-USB Evaluation-Kit sensor!

1.2 Connecting your MTK-USB Evaluation-Kit

1.2.1 Connector Overview

- a. Power Supply
- b. USB

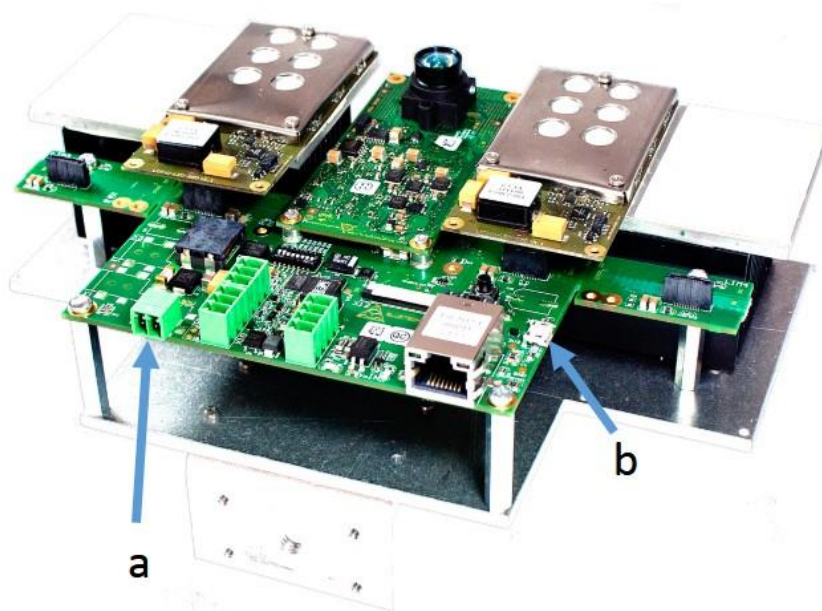


Figure 1-1: MTK-USB Evaluation-Kit connectors and interfaces

**Note**

Please follow the next steps in the right order to get your 'MTK-USB Evaluation-Kit up and running correctly.

1.2.2 Power Connector (a)

Pin assignment on the power connector:

Connector Type: 2.1mm ID / 5.5mm OD

Voltage: 18-30V



Note

Use inherently limited power sources only!

The power supply connector is protected against wrong polarity but the 'MTK-USB Evaluation-Kit' will not work in case you don't use the correct polarity!
If the MTK-USB Evaluation-Kit doesn't work please check the power supply polarity first!

To ensure, that your MTK-USB Evaluation-Kit works correctly, connect the 'MTK-USB Evaluation-Kit' to the **24V DC / 90W** power supply using connector **(a)** and the DC-Jack as an adapter to the power supply and wait for approximately 20 seconds until the camera boots up.

1.2.3 USB Connector (b)

This standard USB connector provides a USB 2.0 interface to the MTK-USB Evaluation-Kit.

Plug in the USB cable **(b)** and connect your MTK-USB Evaluation-Kit to your PC.

1.3 Overview of the Setup

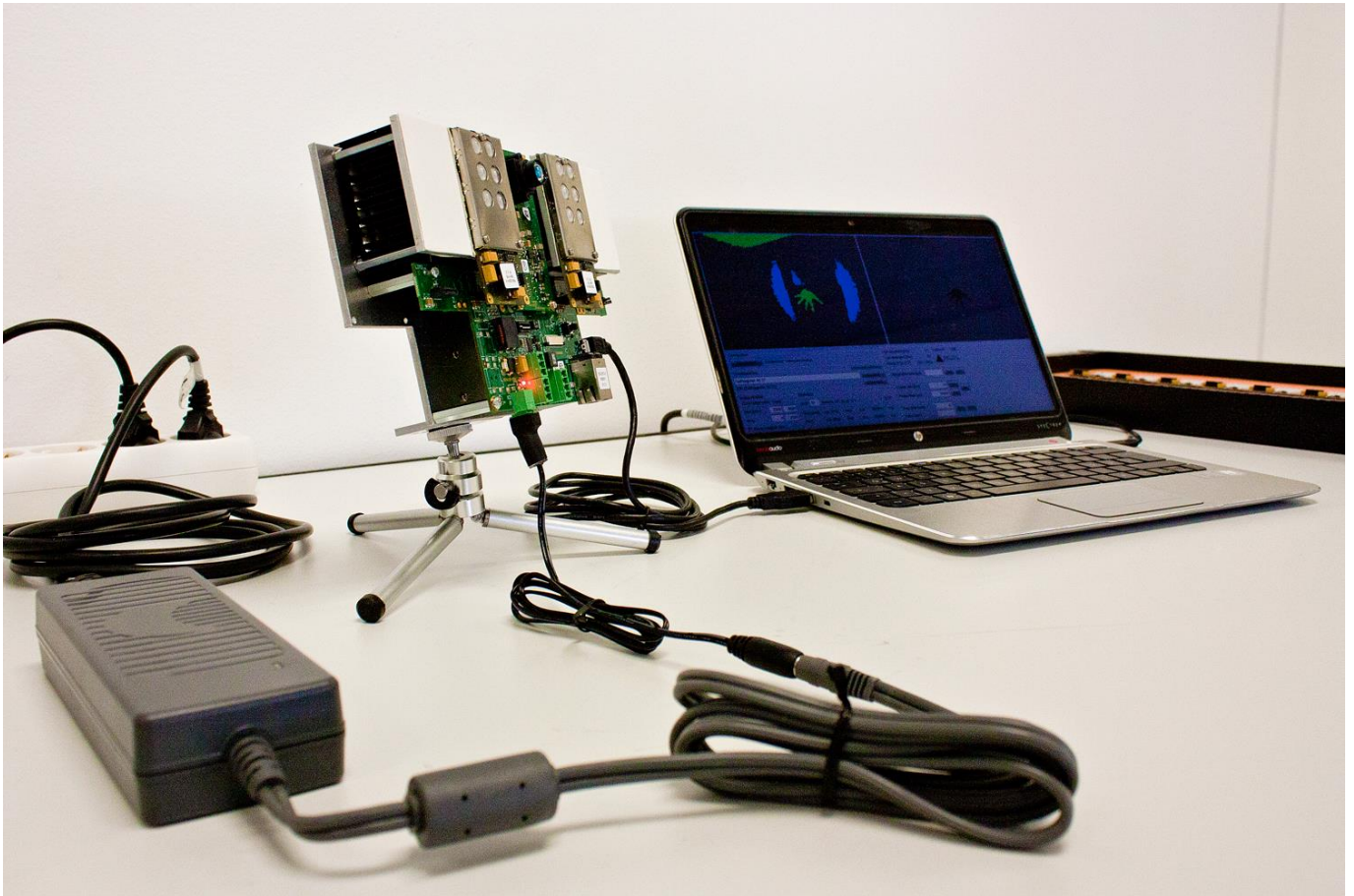


Figure 1-2: MTK-USB Evaluation-Kit with connected power supply and USB cable

2 Downloading the Evaluation Software

Please point your browser to our support site <https://support.bluetechnix.com/> and select the 'Free Access' area.

2.1 Support website

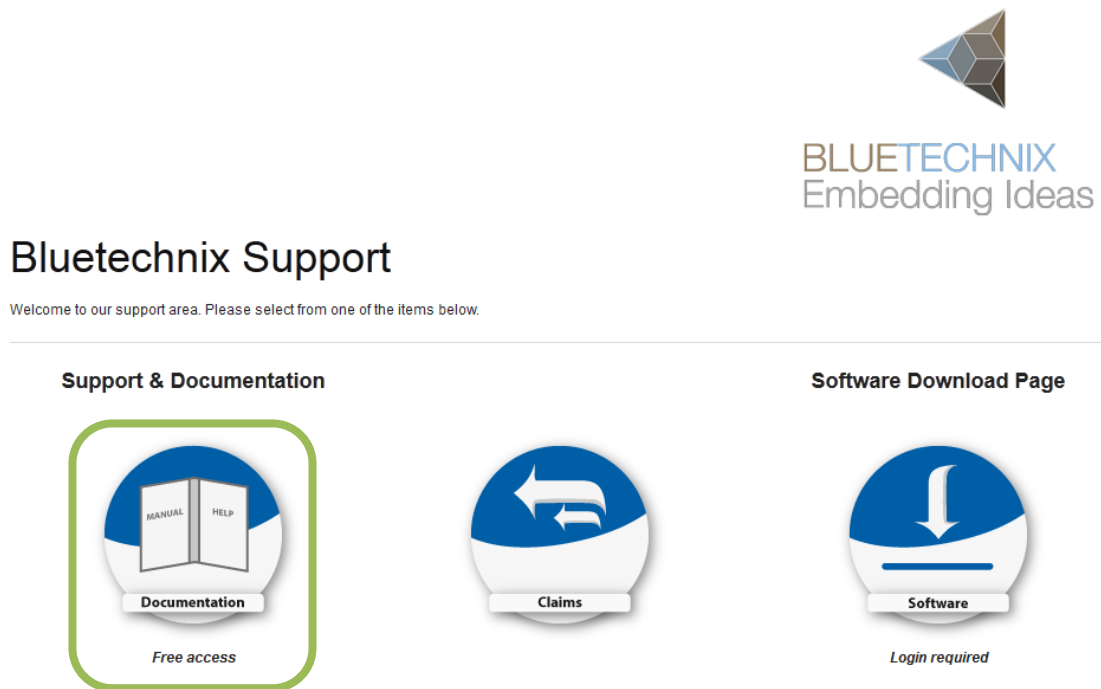
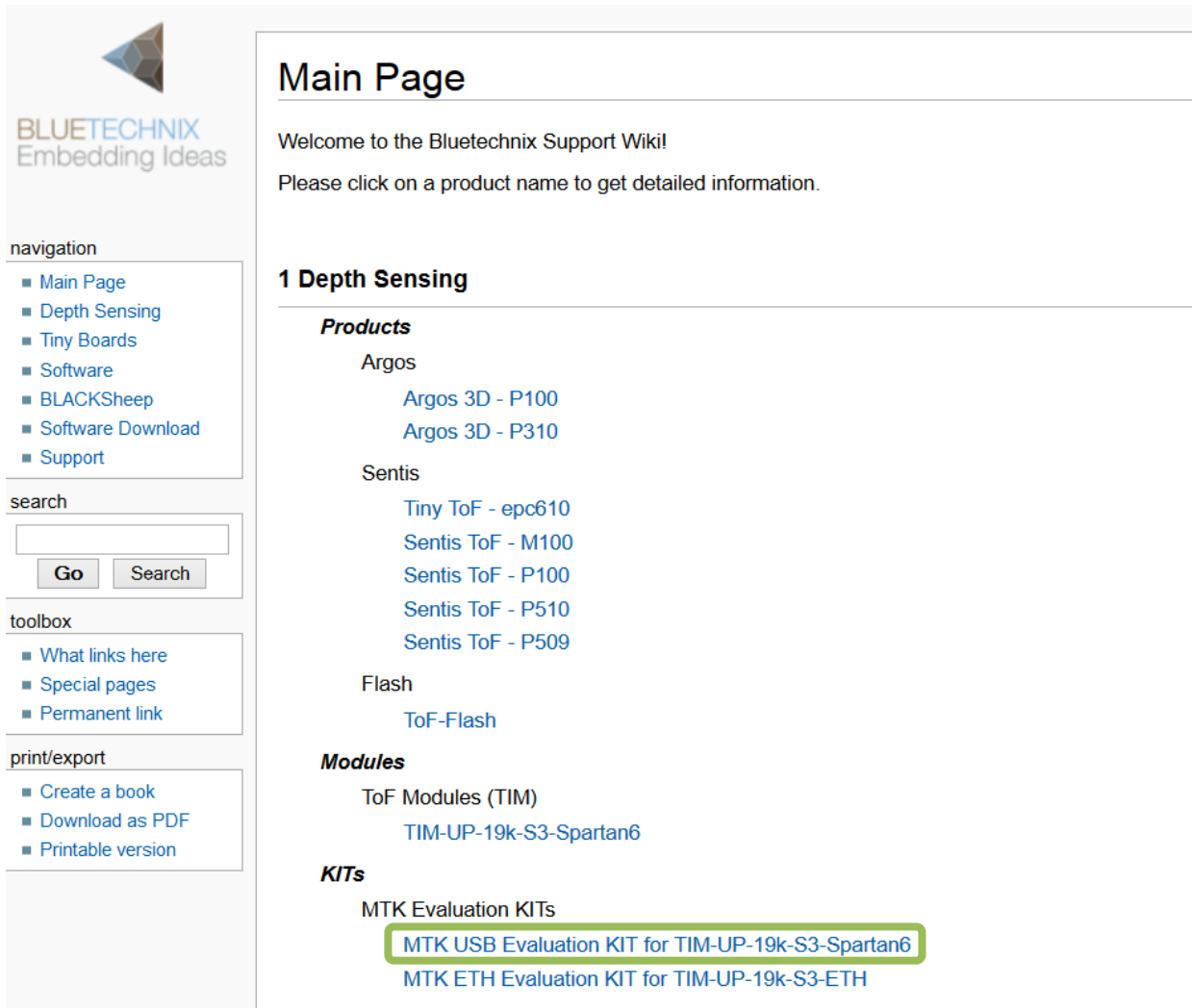


Figure 2-1: Bluetechnix support site

2.2 Start-up screen

You should see the startup screen:



The screenshot shows the 'Main Page' of the Bluetechnix Support Wiki. On the left is a sidebar with navigation links (Main Page, Depth Sensing, Tiny Boards, Software, BLACKSheep, Software Download, Support), a search bar, and a toolbox (What links here, Special pages, Permanent link). The main content area is titled 'Main Page' and includes a welcome message and a list of products under the heading '1 Depth Sensing'. The products are categorized into 'Products' (Argos, Sentis, Flash), 'Modules' (ToF Modules (TIM)), and 'KITS' (MTK Evaluation KITS). The 'MTK USB Evaluation KIT for TIM-UP-19k-S3-Spartan6' is highlighted with a green box.

Main Page

Welcome to the Bluetechnix Support Wiki!

Please click on a product name to get detailed information.

1 Depth Sensing

Products

- Argos
 - [Argos 3D - P100](#)
 - [Argos 3D - P310](#)
- Sentis
 - [Tiny ToF - epc610](#)
 - [Sentis ToF - M100](#)
 - [Sentis ToF - P100](#)
 - [Sentis ToF - P510](#)
 - [Sentis ToF - P509](#)
- Flash
 - [ToF-Flash](#)

Modules

- ToF Modules (TIM)
 - [TIM-UP-19k-S3-Spartan6](#)

KITS

- MTK Evaluation KITS
 - [MTK USB Evaluation KIT for TIM-UP-19k-S3-Spartan6](#)
 - [MTK ETH Evaluation KIT for TIM-UP-19k-S3-ETH](#)

Figure 2-2: Product main page

Please select your product: e.g. MTK-USB Evaluation-Kit for TIM-UP-19k-S3-Spartan6

On the product support page please download the latest CD support package from the download section.

2.3 Driver installation

Browse to the directory where you previously saved the CD package zip file. Unzip the software. Now you can find the CD content.

At the first time you have plugged in your KIT, you have to install the driver which can be found in the evaluation package under the directory 'driver'.

Open the Windows Device Manager by pressing the *Windows-Button* + *Pause-Button* and choose *Device Manager* as shown in following figure.

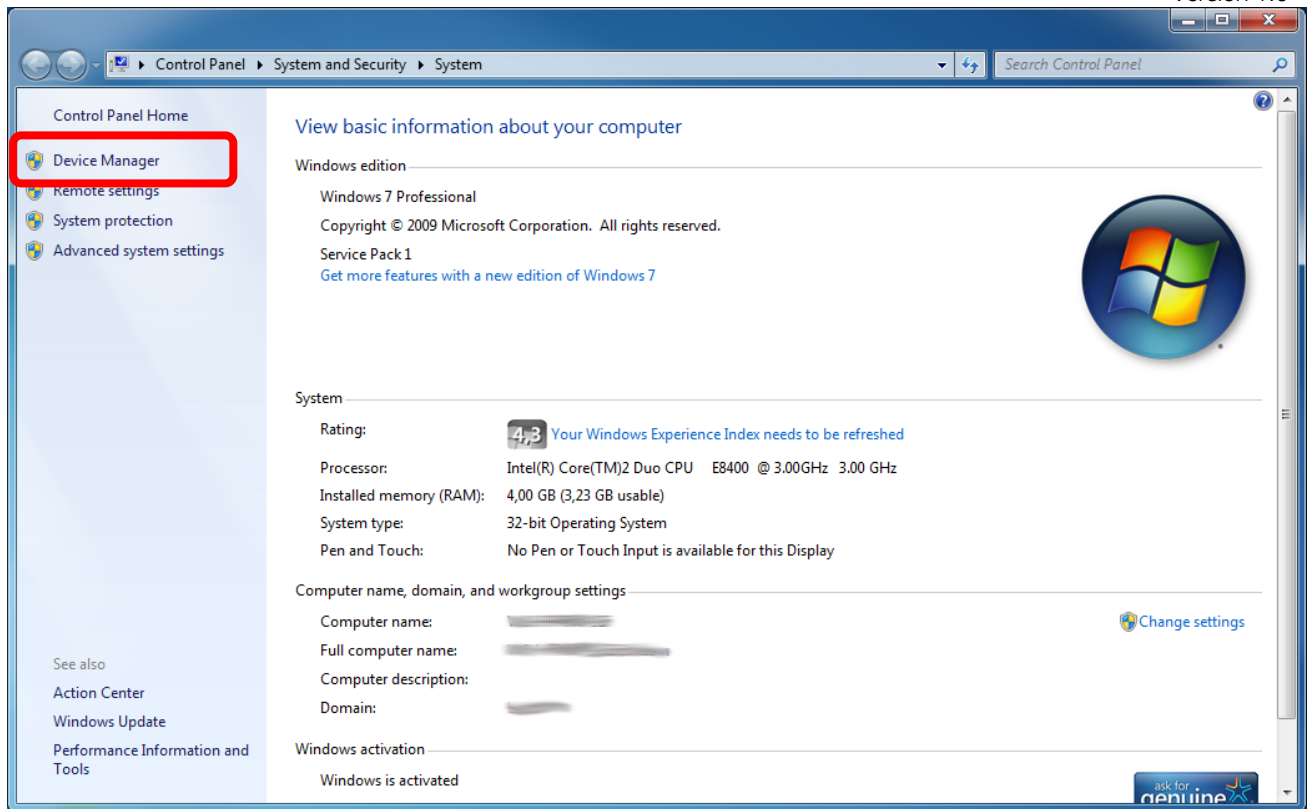


Figure 2-3: Windows Device Manager

Once Device Manager is opened, right click “*Bluetechnix – Argos3D – P100*” in “*Other Devices*” and click “*Update Driver Software*”. Don’t worry about the name Argos3D-P100.

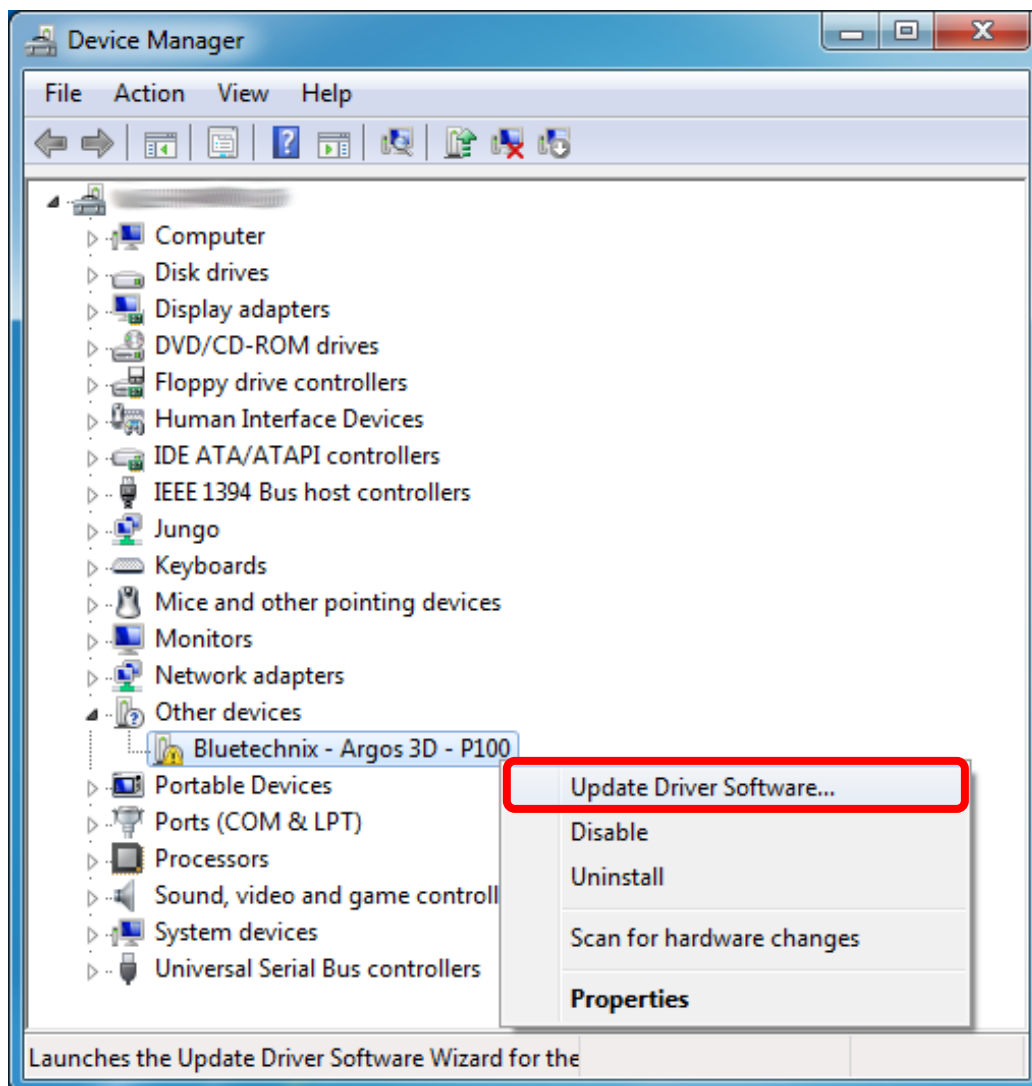


Figure 2-4: Device Manager – Update Driver Software

Then choose “Browse my computer for driver software”.

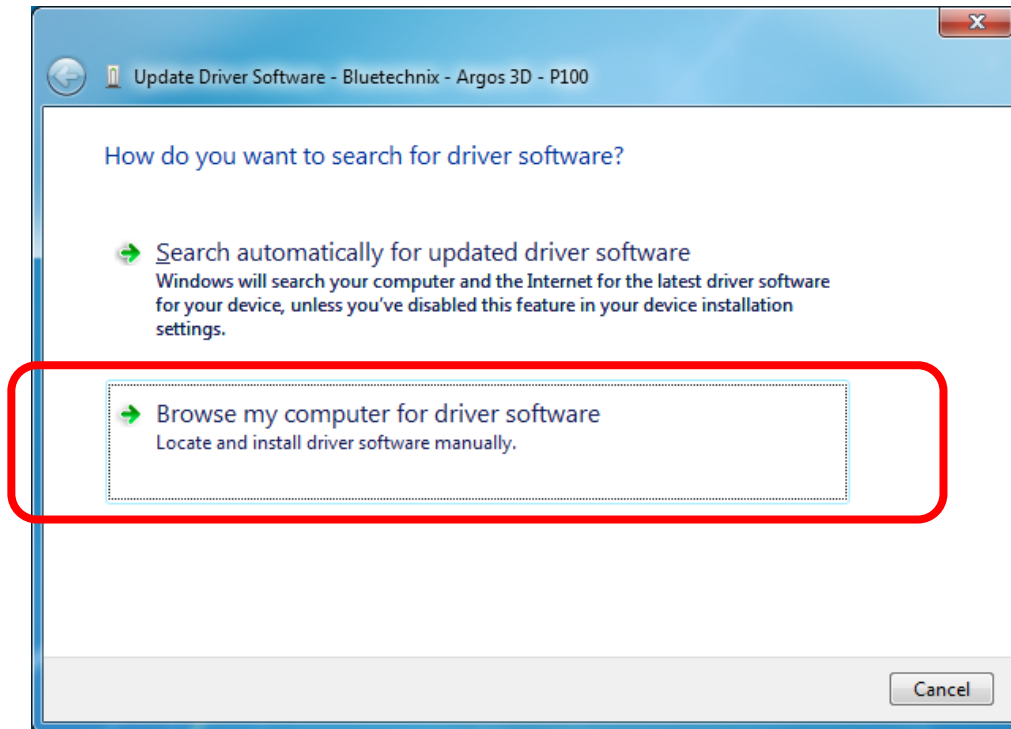


Figure 2-5: Locate and install driver software manually

Point the driver install utility to the “driver” directory of the unzipped support CD package. Check “Include subfolders” and click “Next”.

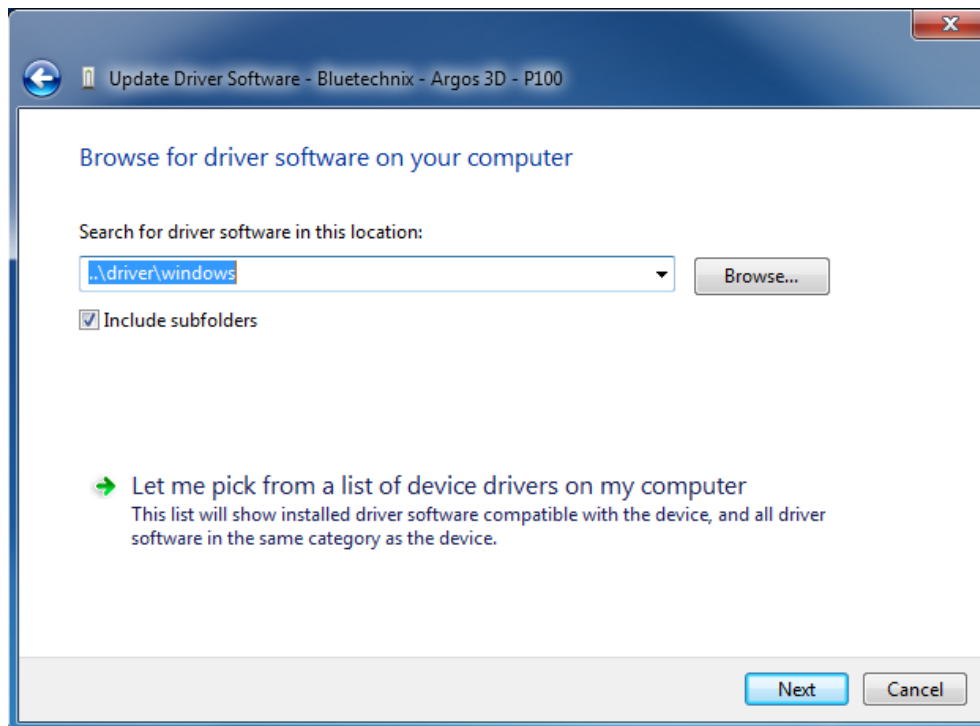


Figure 2-6: Browse for driver software on your computer

If a Windows security warning appears choose *“Install this driver software anyway”*.

If the exclamation mark disappears your MTK-KIT has been successfully installed.

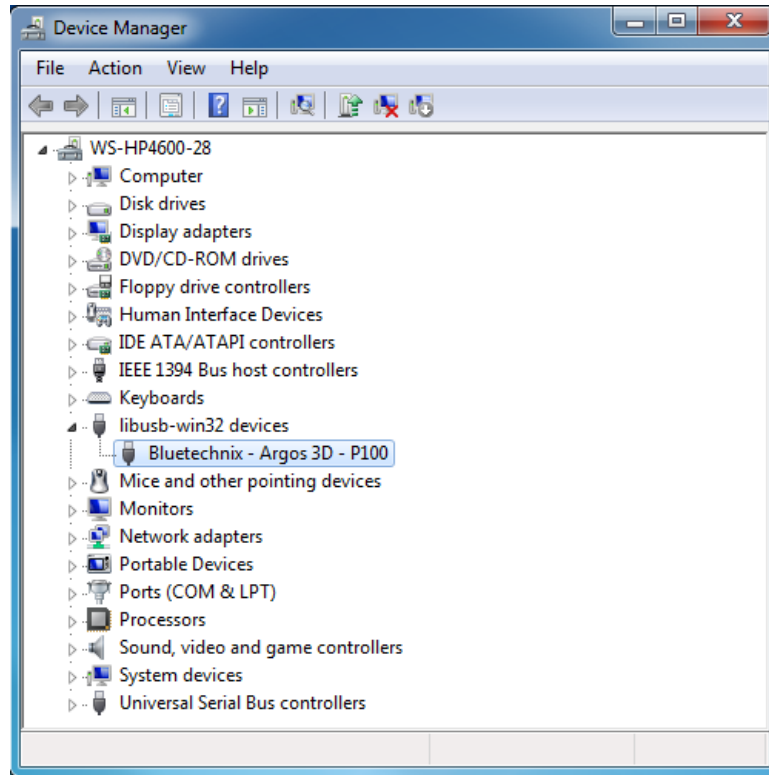


Figure 2-7: Device Manager window after successful driver installation

3 Start using your MTK-USB Evaluation-Kit with 'BltTofSuite'

Using this software you can simply display the depth image and the amplitude image of the MTK-ETH. For a detailed introduction to the software, please read the 'Bluetechnix ToF Suite - Quick Start Guide'

Place the MTK-ETH Evaluation-Kit on your desk approximately 50 cm in front of you.

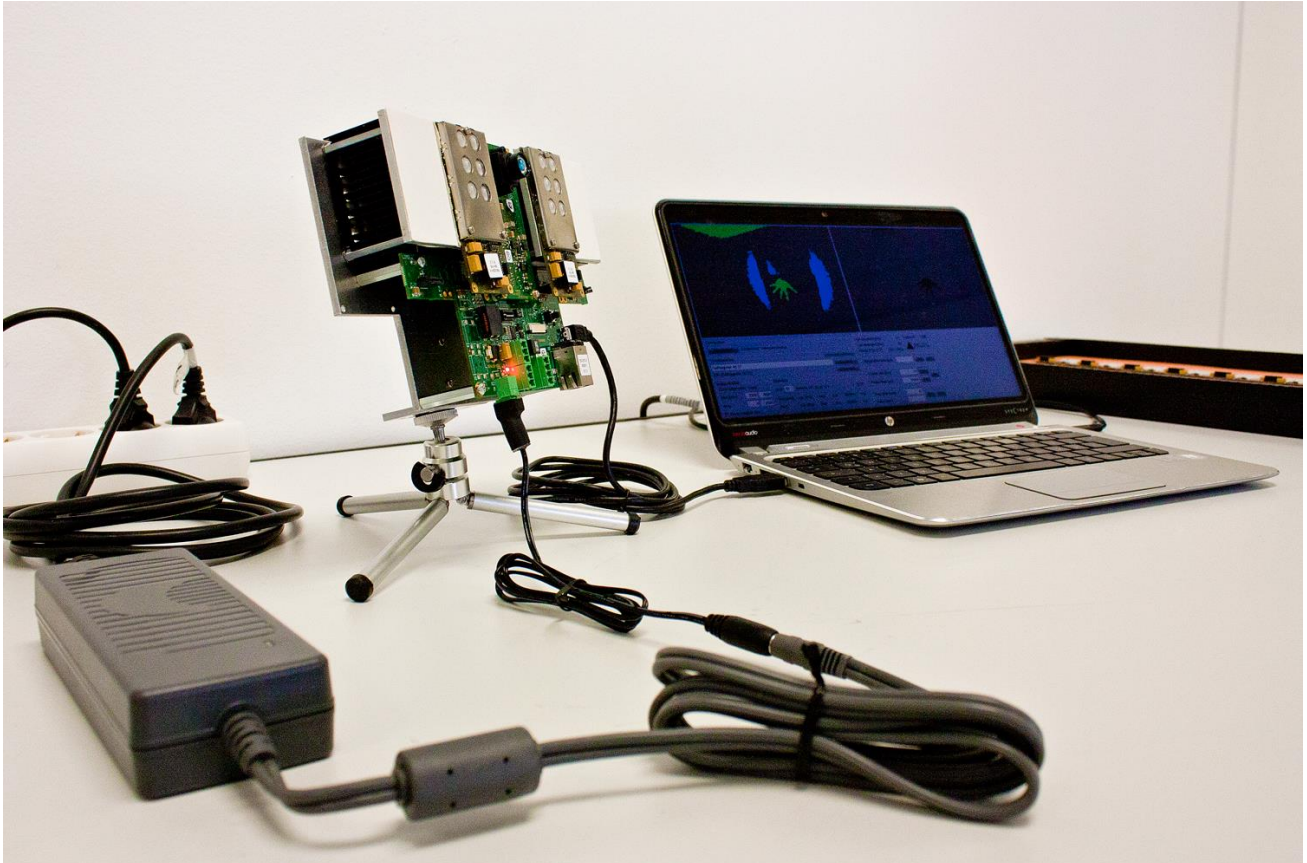


Figure 3-1: Sample scenario with MTK-USB Evaluation-Kit

Browse to the tools directory of your unzipped support CD package. There you can find the BltTofSuite. Start the BltTofSuite.

After the start of the software, you should see something like the screenshot below.

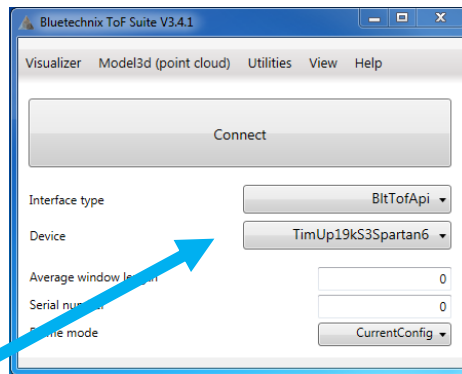


Figure 3-2: BltTofSuite connection window

Select your product: TimUp19kS3Spartan6

Press the **Connect** button and wait some seconds.

After successful connection you should see the live-picture as a result on the screen.

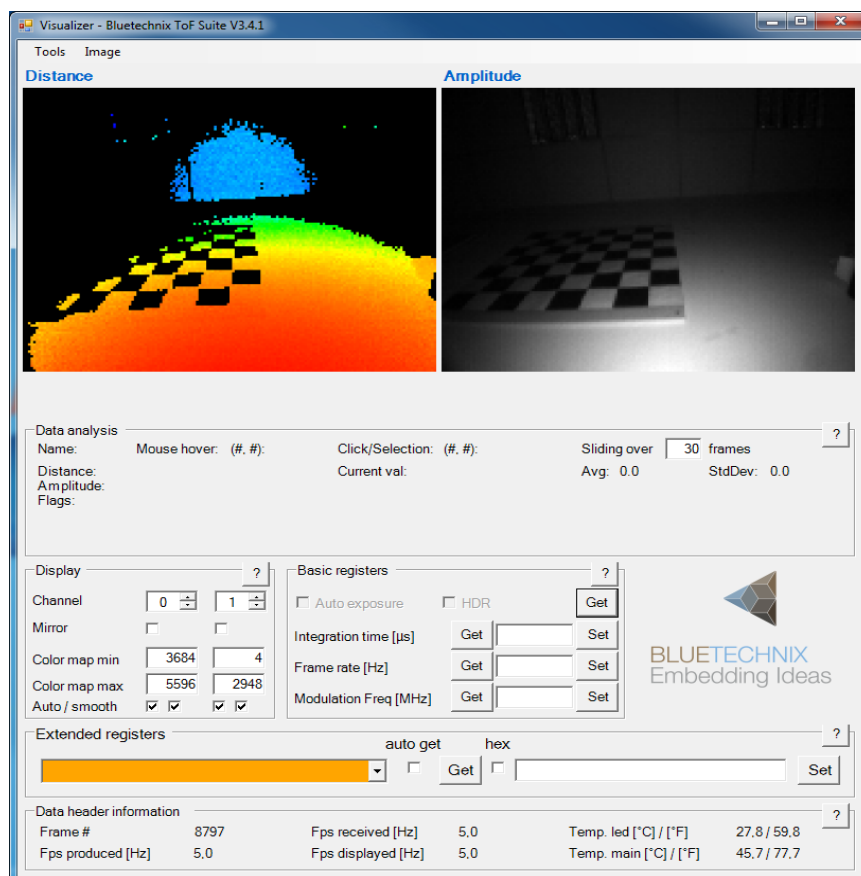


Figure 3-3: BltTofSuite Visualizer Window

4 System Requirements & Support

- Operating System: Microsoft Windows 7/8
- 32 bit (x68) or 64 bit (x64) processor
- Dual-core 2 GHz or faster CPU
- Dedicated Ethernet port
- 2GByte RAM

4.1 Bluetechnix ToF Suite

Visualizer is a .NET application and needs the **.NET framework 4.0** which is available from Microsoft for all actual Windows versions.

4.2 Support

For answers to common questions, troubleshooting steps and further documentation visit our Bluetechnix support website <https://support.bluetechnix.at/wiki/>

5 Product History

5.1 Version Information

5.1.1 MTK-USB Evaluation-Kit

Version	Release date	Firmware Version
X-Grade	March 2015	

Table 5.1: Overview MTK-USB Evaluation-Kit product changes

Additional information can be found at <http://support.bluetechnix.com>

5.2 Anomalies

Version	Date	Description
0.0.0		No anomalies reported yet.

Table 5.2: Product anomalies

Additional information can be found at <http://support.bluetechnix.com>

5.3 Document Revision History

Version	Date	Document Revision
0	20150307	First draft
1	20150327	First released Issue

Table 5.3: Revision history