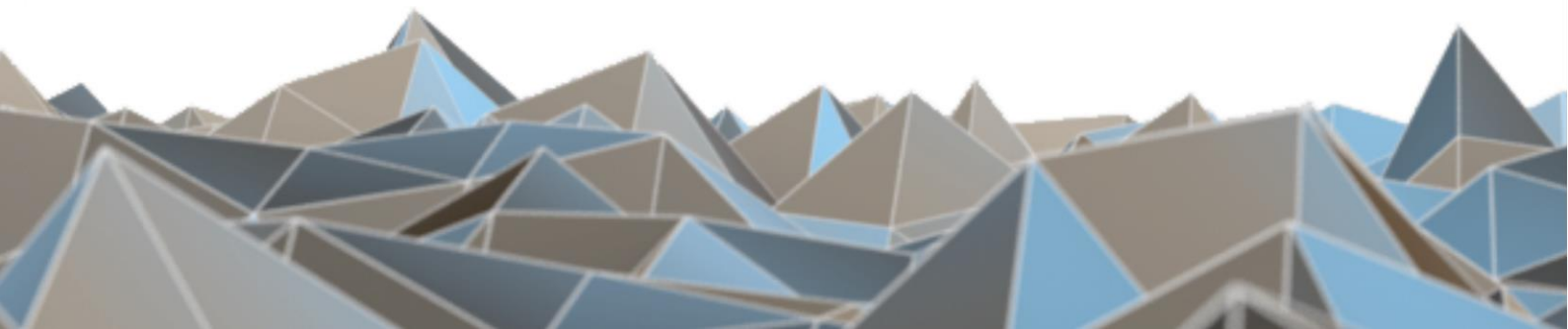


BLUETECHNIX
Embedding Ideas

Sentis-ToF – P510

Quick Start Guide

Version 2



Bluetechnix

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Sentis-ToF-P510-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

- Sentis-ToF-P510 Evaluation-Board
- CAT5/7 Ethernet Cable
- Quick Start Guide
- Power Supply *

*** Note**

The power supply's operating temperature is specified from 0 to +40°C. This represents not the effective working temperature of the Sentis-ToF-P510 sensor!

1.2 Connecting your Sentis-ToF-P510 Eval-Kit

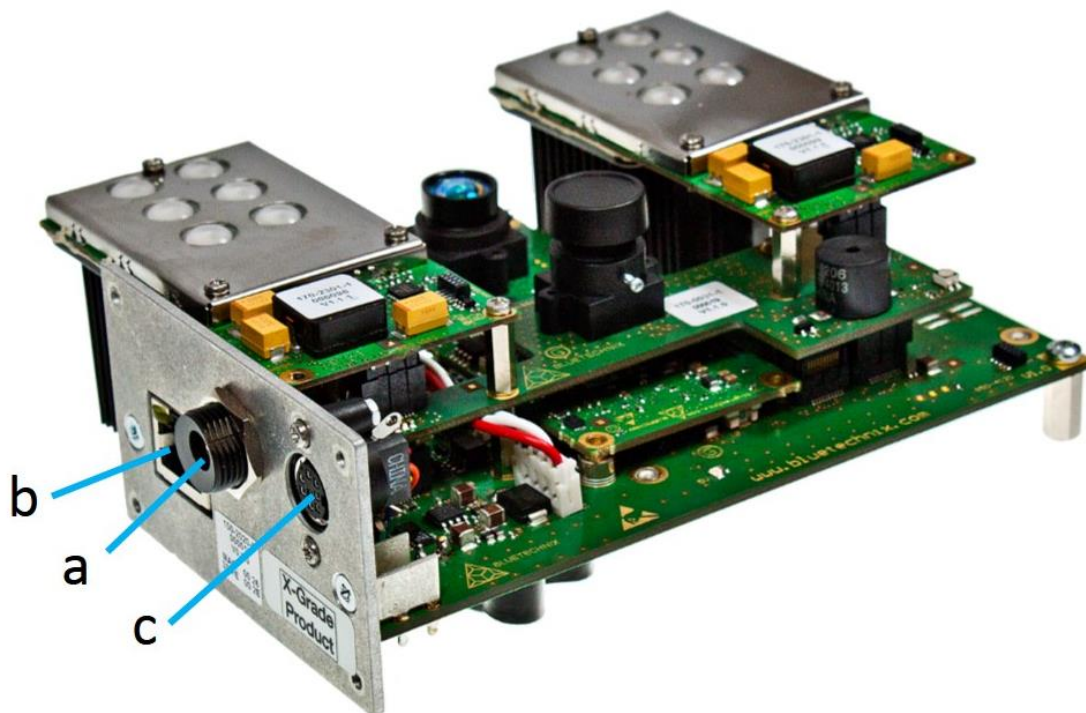


Figure 1-2: Sentis-ToF-P510 connector compartment screw positions

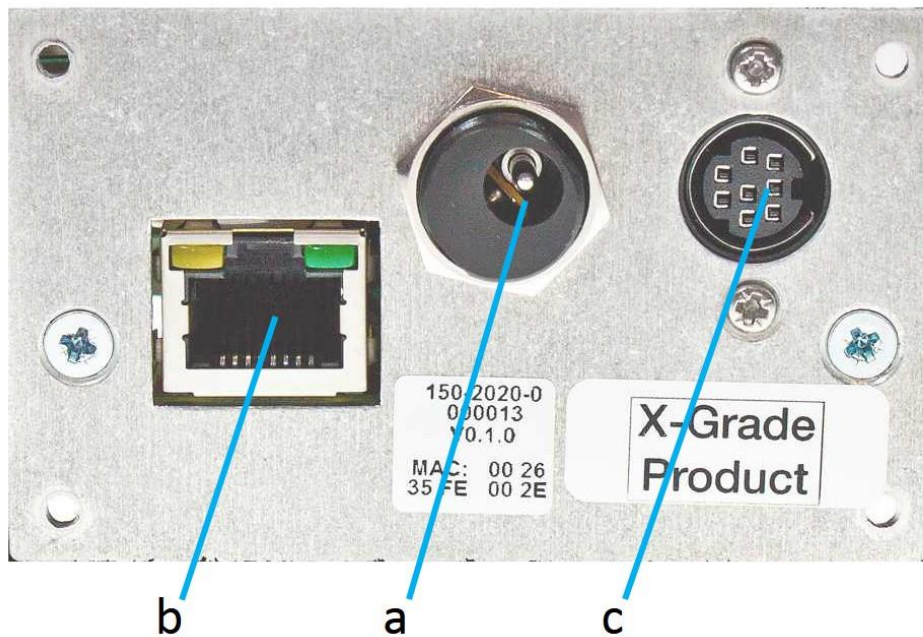


Figure 1-3: Front panel view

1.3 Connector Overview

- a. Power Supply
- b. GBit Ethernet (RJ45) 10/100/1000 Base-T
- c. Extension Connector

Figure 1-1: Sentis-ToF-P510 connectors and interfaces

**Note**

Please follow the next steps in the right order to get your 'Sentis-ToF-P510' up and running correctly.

1.4 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 'Sentis-ToF-P510' will not work in case you don't use the correct polarity! If the Sentis-ToF-P510 doesn't work please check the power supply polarity first!

To ensure, that your Sentis-ToF-P510 works correctly, connect the 'Sentis-ToF-P510' to a **12-30V DC** power supply using connector **(a)** and wait for approximately 20 seconds until the camera boots up.

1.5 GBit Ethernet Connector (b)

This standard RJ45 connector provides a 10/100/1000 Base-T interface to the Sentis ToF - P510.

Plug in the Ethernet cable **(b)** and connect your Sentis-ToF-P510 to your PC.

1.6 Extension Connector (c)

The Mini-DIN 8 connector provides several interfaces to connect the Sentis ToF - P510 to external devices.

| No. | Signal | Type | Description |
|-----|------------|-----------------|--|
| 1 | GND | Power | Ground |
| 2 | nRESET | Input (100k pu) | Reset input (active low) |
| 3 | TRIGGER_IN | Input (100 pd) | Trigger input, 10-30V |
| 4 | OWIRE | Output | External OWIRE interface |
| 5 | MOD_P | Output | External Light modulation signal, differential, positive |
| 6 | MOD_N | Output | External Light modulation signal, differential, negative |
| 7 | GPIO | In-/Output | General purpose I/O (galvanic isolated) |
| 8 | Reserved | - | - |

Table 1-1: Power connector pin-out

Note:



To use the output functionality of the GPIO pin an external pull-up resistor is necessary. This pull-up must be designed for a minimum current of 13mA. (e.g 1k5 pull-up to 20V)

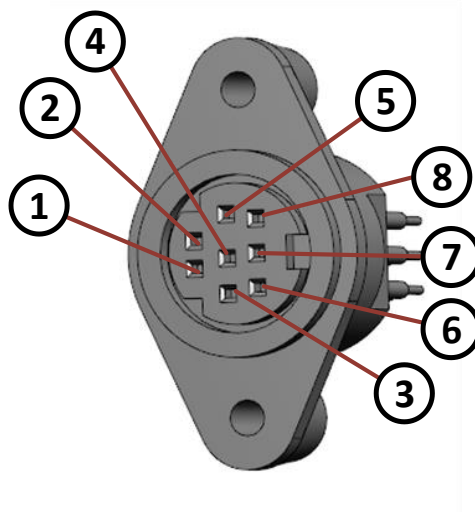


Figure 1-2 Extension Connector (Mini-DIN8) pin out

| Description | Manufacturer | Part Number |
|----------------------|--------------|-------------|
| Mini-DIN8 plug, male | CUI Inc | MD-80 |

Table 1-2: Mating connector

1.7 Overview of the Test Set-up

Test Set-up

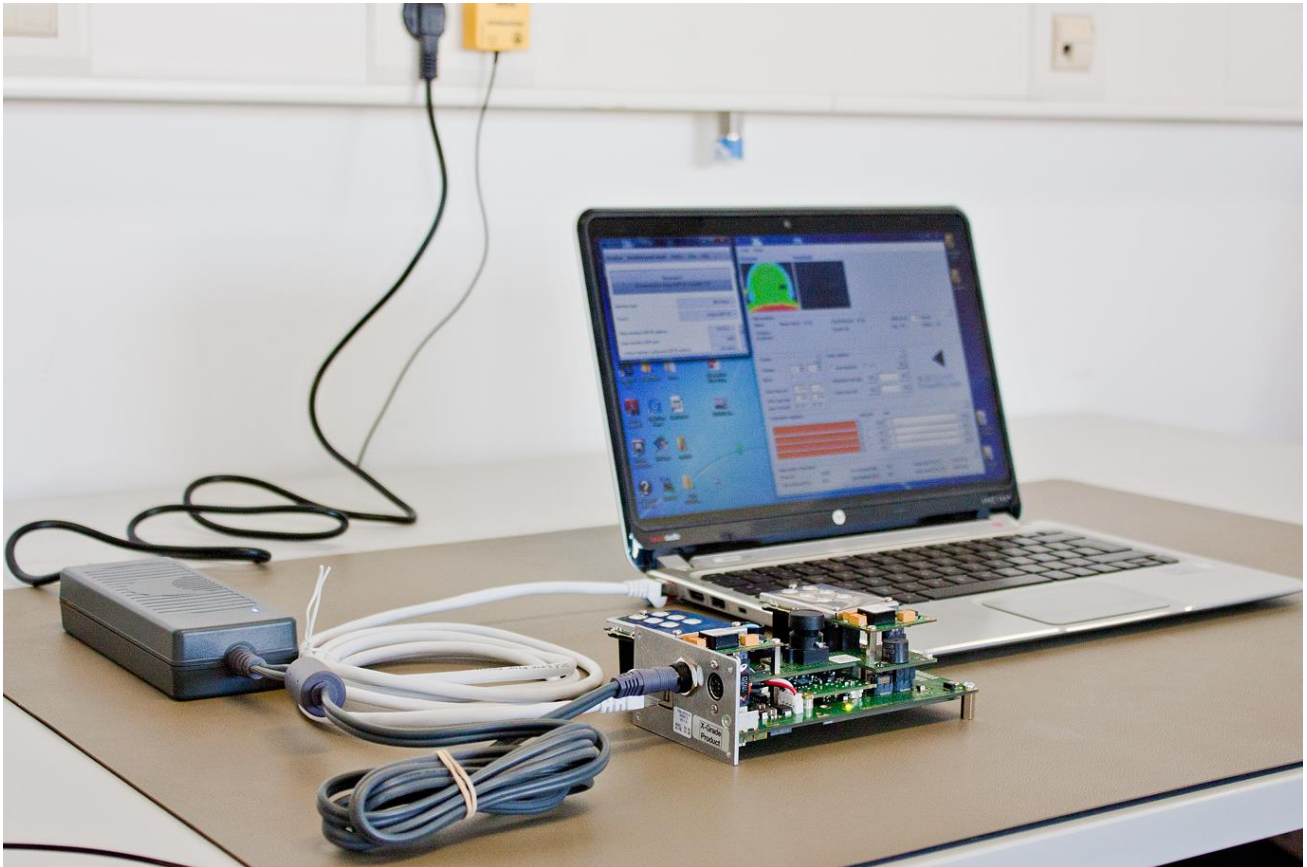


Figure 1-3: Sentis-ToF-P510 with connected power supply and Ethernet cable

2 Downloading the Evaluation Software

Please log in to our support website at <https://support.bluetechnix.com/> and download the Sentis-ToF-P510 software package. This package also includes the Bluetechnix ToF-Suite.

2.1 Support website

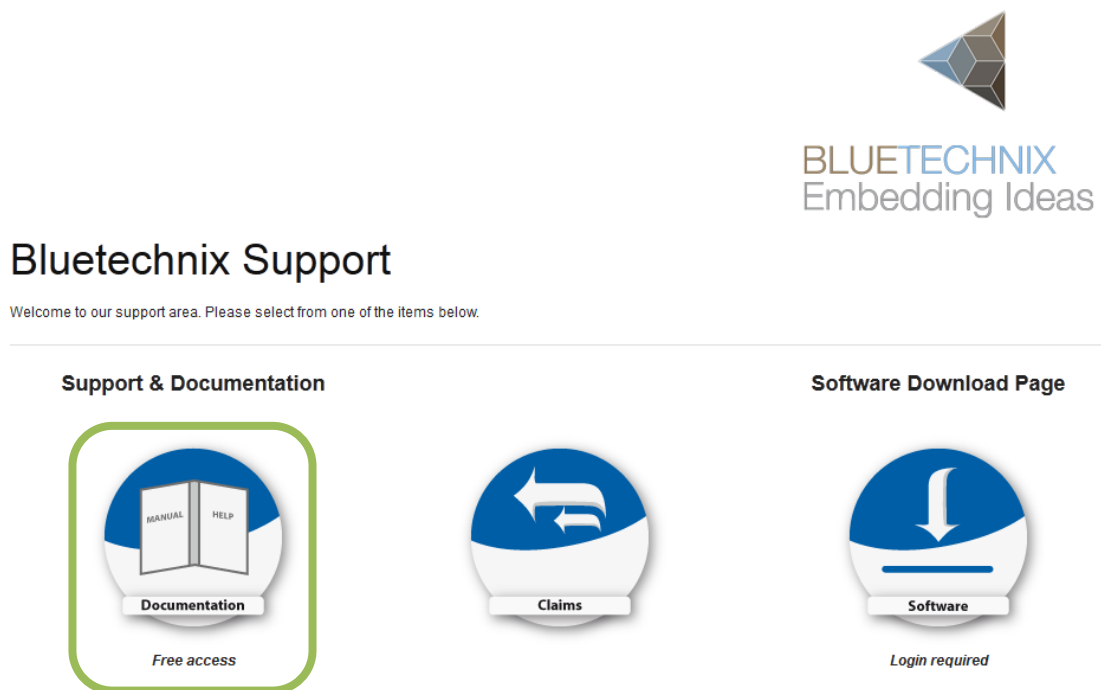
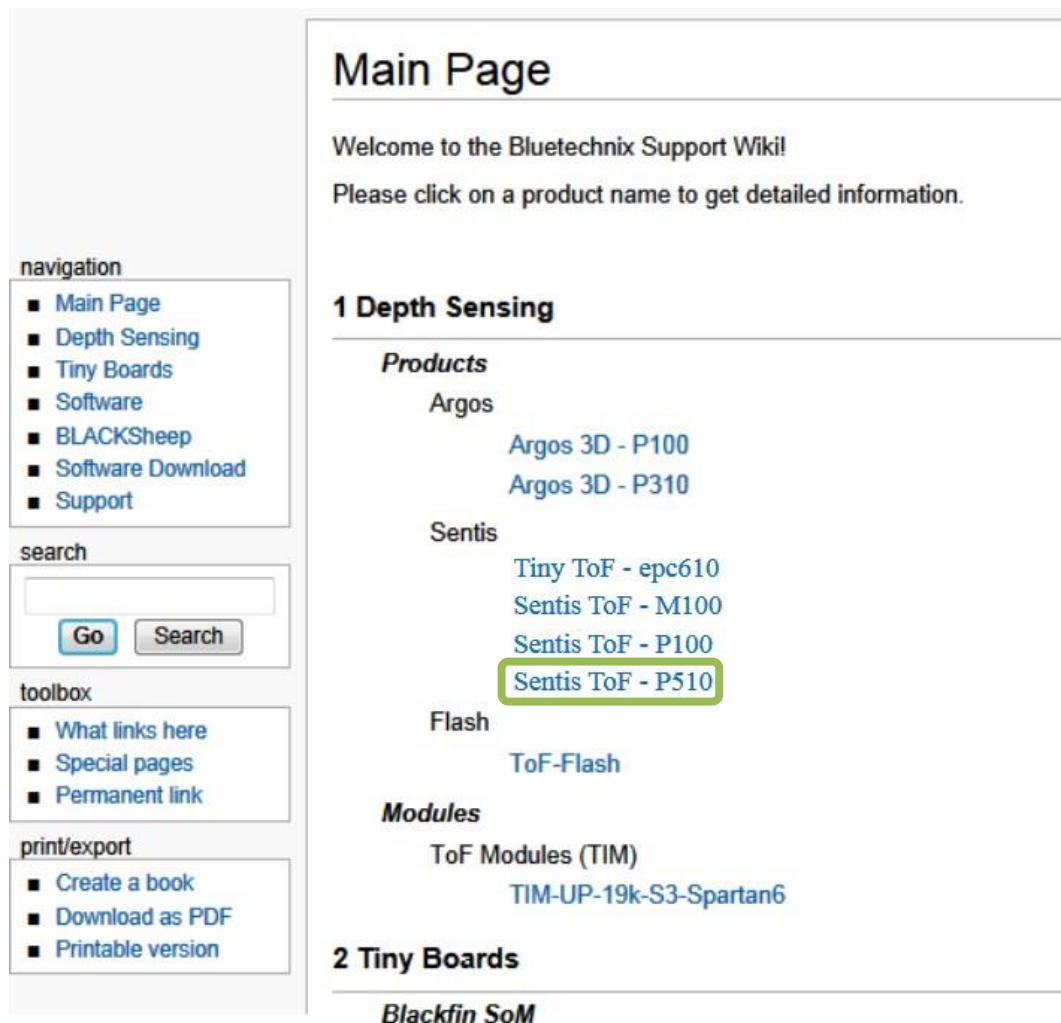


Figure 2-1: Download Evaluation Package

Please follow the instructions on the WEB-Site

2.2 Start-up screen



Please select your product: e.g. **Sentis ToF – P510**

Figure 2-2: Start-up screen

2.3 Prepare your Network Interface Card (NIC)

Once you have connected your Sentis-ToF-P510 to a Network Interface Card (NIC) of your PC give this NIC the IP-Address 192.168.0.1 with a subnet mask of 255.255.255.0.

No driver must be installed on your PC!

The Sentis-ToF-P510 uses IP-Address 192.168.0.10 with subnet mask 255.255.255.0.

3 Start using your Sentis-ToF-P510 with 'BltTofSuite'

Browse to the directory where you previously saved the BltTofSuite software zip file. Unzip the software. Start the BltTofSuite. On how to use the Bluetechnix ToF Suite, please refer to the user manual included in the software support package.

4 System Requirements & Support

A Sentis-ToF-P510 enabled application is required in order to use this 'Sentis-ToF-P510' device.

Connect to a system with:

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

4.1 Support

For answers to common questions, troubleshooting steps and further documentation visit our Bluetechnix support website or using the direct link: [https://support.bluetechnix.at/wiki/Sentis ToF-P510](https://support.bluetechnix.at/wiki/Sentis_ToF-P510)

5 Product History

5.1 Version Information

5.1.1 Sentis-ToF-P510

| Version | Release date | Firmware Version |
|---------|--------------|------------------|
| X-Grade | Nov 2014 | |

Table 5.1: Overview Sentis-ToF-P510 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 | 20150207 | First draft |
| 1 | 20150219 | First released Issue |
| 2 | 20160210 | Removed BltToF Suite section |

Table 5.3: Revision history