

# Sentis<sup>ToF</sup> - M100

Time-of-Flight Smart Sensor



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Embedding Ideas

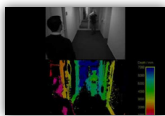
The Sentis<sup>ToF</sup> - M100 is a new 3D sensor, operating on the Time-of-Flight (ToF) principle. The M100 is equipped with a PMD PhotonICS® 19k-S3 Time-of-Flight 3D chip.

This smart 3D sensor delivers depth information and gray value image data for each pixel simultaneously. Therefore, it's possible to analyze scenes based on 3D data only or in combination with 2D grayscale data.

Using active IR illumination, the sensor is able to capture 3D and 2D information at a resolution of 160x120 pixels with up to 40\* frames per second independently of ambient light. With a range of 3m, a field of view of 90° and a size of only 50 x 55 x 36 mm, this Ethernet connected sensor can be used for next generation sensor systems in various application fields like robotics, gesture recognition, HMI or people counting.



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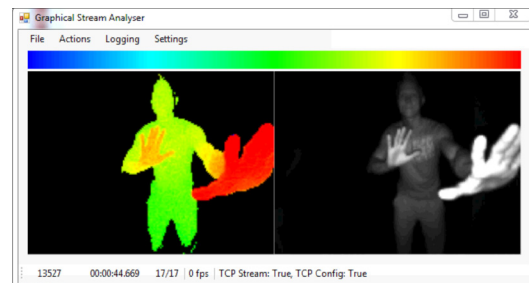


## Applications

- » People counting / tracking
- » 3D light barrier - safety area
- » Gesture Recognition
- » HMI for industrial robots
- » Range measurements
- » Building Automation

## Highlights

- » 3D depth sensor PMD ToF technology
- » Real-time capture of distance and grayscale information
- » 160 x 120 pixel
- » Up to 40 fps\*
- » 3 to 5 m application range\*
- » Ethernet
- » Active IR illumination 850nm
- » Field-of-View 90°



Sentis<sup>ToF</sup> - M100 distance and grayscale information

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## Feature Overview

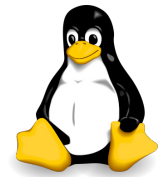
<b>3D TECHNOLOGY</b>	PMD ToF (19k-S3)
<b>PIXEL</b>	160 x 120
<b>DSP</b>	BF561 (2 x 500MHz)
<b>RAM</b>	32 MByte SD-RAM
<b>FLASH</b>	up to 64 MByte NOR
<b>FPS</b>	up to 40 <sup>*</sup>
<b>RANGE</b>	3 - 5 m <sup>*</sup>
<b>LED</b>	2 x 850 nm
<b>POWER SUPPLY</b>	24V <sub>DC</sub> @ 0.7A
<b>Ethernet</b>	10/100Mbit
<b>RS232</b>	1
<b>RS485</b>	1
<b>GPIO</b>	3
<b>TRIGGER INPUT</b>	1
<b>TEMPERATURE RANGE</b>	Industrial -40 to +85 °C
<b>SUPPORTED OS</b>	uClinux VDSP++ Project
<b>COOLING</b>	Passive
<b>DIMENSIONS</b>	B60 x H60 x T40mm W2.36" x H2.36" x D1.57"

<sup>\*</sup> FPS & Range depends on integration time, ambient temperature and software configuration

## Software

Sentis<sup>ToF</sup> - M100 software support

- » uClinux BSP with dual core support
- » VDSP++ multithreaded dual core project



## Customization

Sentis<sup>ToF</sup> - M100 is focused on modularity. Individual base boards with your required interfaces can easily be implemented.

Further information on  
[www.bluetech.com/goto/sentis](http://www.bluetech.com/goto/sentis)

Sensor can be ordered without base/interface board.

## Ordering Information

Order No.	Info
150-3001-1	Sentis <sup>ToF</sup> - M100 Time-of-Flight smart sensor

Based on



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