

Sentis^{ToF} - M100

Time-of-Flight Smart Sensor



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The Sentis^{ToF} - 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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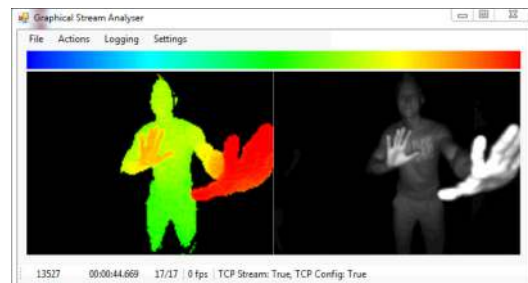
Applications

- » 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^{ToF} - M100 distance and grayscale information

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Feature Overview

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

^{*}FPS & Range depends on integration time, ambient temperature and software configuration

Software

Sentis^{ToF} - M100 software support

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



Customization

Sentis^{ToF} - M100 is focused on modularity. Individual base boards with your required interfaces can easily be implemented.

Further information on
www.bluetech.com/goto/sentis

Sensor can be ordered without base/interface board.

Ordering Information

Order No.	Info
150-3001-1	Sentis ^{ToF} - M100 Time-of-Flight smart sensor

Based on



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