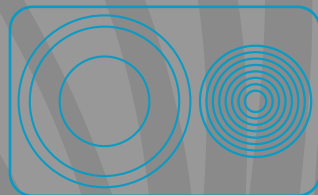




**SoftKinetic®**  
The Interface Is You

# DS311 Datasheet

Far & Close Interaction Time-of-Flight 3D Depth-Sensing Camera



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Far & Close Interaction Time-of-Flight 3D Depth-Sensing Camera



DS311 produced by SoftKinetic Korea

## What is DepthSense?

DepthSense is SoftKinetic's patented time-of-flight depth sensor. The sensor measures the time it takes for infrared light emitted from the DepthSense 311 (DS311) camera to return. This is the Time-of-Flight (ToF). DepthSense transforms the ToF positional data into real time, 3D RGB images, as well as greyscale confidence and depth map images. At a refresh rate of 60 frames per second (fps), DepthSense delivers fast, low latency data transfer to create the best user experience with virtually no lag.

## About DS311

The DS311 delivers real time 3D distance data mainly for far interaction, but also for close interaction. It provides depth data for software analysis from as close as 15cm, at up to 60fps. It combines our patented ToF DepthSense sensor, a RGB sensor and two microphones. Working with our powerful middleware iisu, the DS311 enables a new world of unique experiences that are accessible through a natural user interface. The DS311 is available in scalable quantities for development and commercial applications.

## Key Features & Benefits

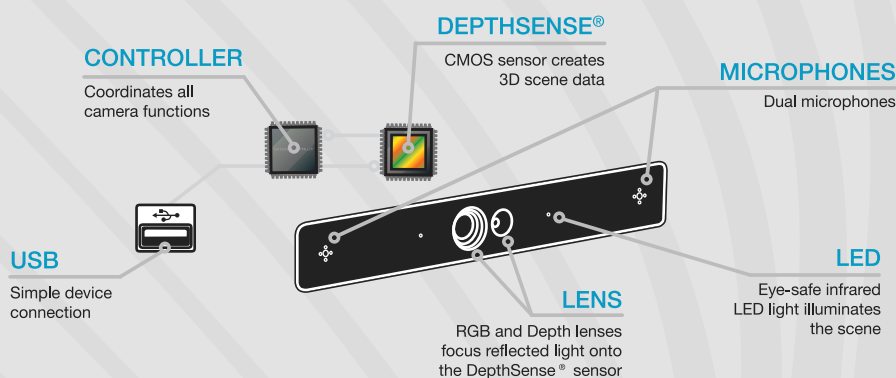
- ▶ **Safe:** LED illumination
- ▶ **Accurate:** Detailed sensitivity
- ▶ **Economical:** Low power consumption
- ▶ **Reliable:** Confidence measure for each pixel
- ▶ **Fully featured:** Z cam + RGB + microphones
- ▶ **Wall Mountable:** For commercial environments
- ▶ **Customizable:** Technology for a variety of different camera configurations and formats
- ▶ **Standardized CMOS:** Powerful and low cost sensor technology
- ▶ **For indoor use**

## End-to-End Solution

SoftKinetic is the leading provider of end-to-end, natural gesture recognition solutions. These include 3D CMOS ToF sensors, modules and cameras produced by SoftKinetic Korea (**DepthSense®**), natural gesture recognition middleware (**iisu®**), and games and applications from **SoftKinetic Studios**.

We want to give everyone the freedom to control, explore and enjoy the entire digital world through the most natural and intuitive user interfaces and machine interactions.

## / Specifications



## Technical Specifications

- ▶ **Technology:** DepthSense®
- ▶ **Depth field of view:** 57.3° x 42° x 73.8° (H x V x D)
- ▶ **Depth resolution:** 160 x 120 | QQVGA
- ▶ **Frame rate:** 25 fps – 60 fps | QQVGA
- ▶ **Nominal operating range:** 0.15m – 1.0m  
1.5m – 4.5m
- ▶ **Depth noise:** < 3cm at 3m
- ▶ **Illumination type:** LED
- ▶ **Ambient light:** Typical indoor
- ▶ **RGB resolution:** 640 x 480 (VGA)
- ▶ **RGB field of view:** 50° x 40° x 60° (H x V x D)
- ▶ **Microphones:** 2
- ▶ **Connectivity:** Single USB and external power
- ▶ **Operating temperature:** 10°C to 40°C
- ▶ **Power:** < 10 W  
< 5 W (dual USB mode)
- ▶ **Size:** 24cm (W) x 4cm (H) x 5cm (D)

## / Far Interaction

### Innovative User Experience



Create immersive natural user interfaces using no-touch precise hand-tracking.

### Living Room Experience



Step in and control the application using full body interaction.

### Development Experience



Use iisu to develop applications using accurate multi-point user tracking.