



Reference Design PMD[vision][®] CamBoard nano

The PMD[vision][®] CamBoard nano with dimensions of 37x30x25mm is the smallest depth sensor reference design available worldwide. Providing a frame rate of up to 90fps at 160x120px with a 90° field of view, the CamBoard nano is outstandingly suitable for contactless Human-Machine-Interfaces based on gesture detection. It delivers depth maps and gray value image data simultaneously. Therefore, it's possible to analyze scenes based on 3D data only or in combination with 2D gray value data.

The CamBoard nano is a reference design for the PMD PhotonICs[®] 19k-S3 imager, equipping our customers with an operational platform which facilitates the development of application-specific depth sensor systems, enabling them to reduce innovation cycles. To support use-case evaluations we offer our API PMDSDK2 for Linux and Windows (32bit/64bit) along with the latest generation of our visualization tool LightVis and our MATLAB for Windows interface PMDMDK supporting customers to turn their ideas into reality.



[Key features]

- Smallest available 3D Time-of-Flight (ToF) reference camera worldwide
- Up to 90 fps @ 160x120px @ 90° FoV (Field-of-View)
- Flexible readout with programmable Region-of-Interest (ROI)
- USB2.0 Interface
- Multi-camera operation utilizing different frequency channels
- Software package for data processing and visualization
- API for Linux and Windows (32bit/64bit)
- MATLAB interface for Windows (32bit/64bit)

How small can depth sensing become?

Discover a new dimension for natural user interfaces:

1 LED. 1 image sensor. That's it.

[Specifications]



The PMD[vision][®] CamBoard nano:
Reference Design of the new PMD PhotonICs[®] 19k-S3 imager

Parameter	Value	Notes
Type of Sensor	PMD PhotonICs [®] 19k-S3	With SBI (Suppression of Background Illumination)
Standard Measurement Range	0 to 2m	Expandable through stronger light source
Repeatability	5mm	Typical value @ 1.5m @ 70% reflectivity
Framerate	<=90fps	Typical
Field of view	90° x 68°	
Dimensions	37x30x25mm	
Illumination Wavelength	850nm	
Power Supply	USB Powered	5V @ 500mA
Software	C API	SDK delivered with reference design to enable integration of PMD sensor into applications



Original size comparison
smartphone
PMD[vision][®] CamBoard nano

