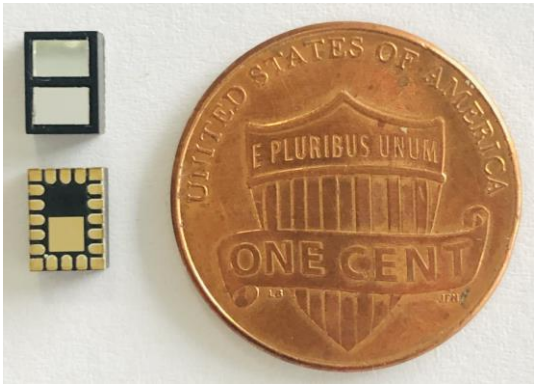
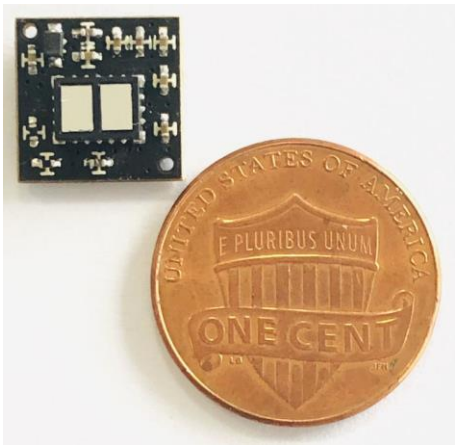
LW-FS8864 Series

LW-FS8864-SPA
3D ToF LiDAR SiP Chip



LW-FS8864-SMA/SMB
3D TOF Micro Module



Product Brochure

Features

- Compact lens-less design
  - SPA: 5.5x4x1.8 mm^3
  - SMA: 11x11x3.2 mm^3
  - SMB: 19x11x3.2 mm^3
- 64-pixel ToF 3D imager
- Class 1 eye-safe 940nm laser
- 32°x32° FOV
- 0.1-5m range (90% reflectivity)
  - >2m range outdoor
- Up to 100 fps frame rate
- Hand gesture AI algorithm
  - Embedded for SMA/SMB
- Low power consumption

Applications

- Hand/body gesture recognition
- Human-machine interaction (HMI)
- Robot collision avoidance
- Automated guided vehicles SLAM
- Surrounding 3D modeling

Description

The LuminWave LW-FS8864 series are aimed to be the most compact, low cost and low power 3D sensors that are optimized for hand/body gesture recognition, robot collision avoidance and similar applications. The core component is a tiny 64-pixel time-of-flight (ToF) 3D sensor (FS8864-SPA) enabled by our unique lens-less design and system-in-package (SiP) technology. We optimize the pixel count of the 3D sensor for size, power and cost considerations and develop deep learning AI algorithms to recognize simple and complex hand gestures which can be embedded in the micro module products (FS8864-SMA/SMB). These products use Class 1 eye-safe 940nm lasers and are suitable to be used for both indoor and outdoor applications.

Comparison

FS8864-SPA	Core 3D sensor SIP
FS8864-SMA	Micro module with SPA and, MCU
FS8864-SMB	Micro module with SPA, MCU and PMU