3D Imaging Time of Flight Development Platform

Complete Hardware and Software solution that works out of the box. Simple Software installation gets users up and running in minutes.

3D Time of Flight (ToF) creates a depth mapping of objects within the field of view and is a key solution used for developing digital vision for many applications. The development platform comes with everything a user needs to start working immediately on 3DToF applications, enabling the development of high value features and functions that create product differentiation.

Features
- 96Boards mezzanine card
- DragonBoard 410C support
- 6m range, up to 1% accuracy
- Finisar 940 nm wavelength VCSEL, up to 40W output
- VGA resolution up to 30fps
- 90° x 69.2° FOV
- CCD sensor, 640x480
- USB, Ethernet or Wi-Fi to connect to a host computer
- 13.8mm removeable lens
- V4L2 capture driver
- Native/Host SDK
- Support for multiple host OSs: Linux, Windows, MacOS
- OpenCV, python and MATLAB wrapper support
- Evaluation software plus limited demo applications and algorithms included
- Depth mode, IR mode

Applications
> INDUSTRIAL
- Automated vehicles
- Safe zone operation
- Robotics
> BUILDING MANAGEMENT
- Surveillance applications
- SLAM
> AUTOMOTIVE
- Gesturing
- Passenger Monitoring

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**Specifications**

<table>
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<th>Specifications</th>
<th>Typical</th>
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<tr>
<td>DC Input</td>
<td>5 VDC</td>
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<tr>
<td>Range</td>
<td>Up to 6m</td>
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<tr>
<td>FoV</td>
<td>90° x 69.2°</td>
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<tr>
<td>VCSEL</td>
<td>940nm</td>
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</tbody>
</table>
| Accuracy             | Near: 20cm to 1.2m; < 2.5% accuracy  
                        | Mid: 1m to 2.6m; < 2% accuracy  
                        | Far: 2.6m to 6m; < 1% accuracy |
| Frame Rate           | Up to 30fps           |
| Resolution           | 640 x 480             |
| Operating Temperature| 0° to 60°C            |

**Software Stack**

96 Board

- **User Applications**
  - Time of Flight SDK
  - V4L2 kernel driver
  - Gadget USB video kernel driver
  - Network server
  - USB2.0/3.0 Connectivity
  - ETH/Wi-Fi

Host PC

- **User Applications**
  - USB2.0/3.0 Connectivity
  - UVC Driver
  - Network client
  - Time of Flight SDK

**TDF Image Pre-processing/Post-processing API**

**Via Phone**

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