HPS-3D160 Solid-State LiDAR

SKU 101990386

Description
HPS-3D160 is a new generation high-performance solid-state LiDAR sensor based on the principle of ToF, with optimized lighting system and low distortion infrared optical lens, measure distance up to 12m on 90% reflective rate white target. Flexible customize ROI setting function, Simple-HDR, Auto-HDR, and Super-HDR mode, make HPS-3D160 widely used in all reflectivity scenes.

HPS-3D160 integrates a high-power 850nm infrared VCSEL emitter and a high-sensitivity photosensitive device, embedded high-performance processor and advanced data process, filter and compensation algorithm, enables very stable and simultaneous measure data output. Full solid structure, industrial IP67 waterproof design and strong aerospace aluminum housing allows the HPS-3D160 to be used in a variety of complex environments

**Features**

- Full field of view frame up to 35 fps
- Field of View: 76° x 32°, Resolution: 160 x 60
- **Support 16 group of users customize region of interest setting, each group support 8 regions of interest**
- **Various communication ports, support USB, RS-232, RS-485, CAN and GPIO Optocoupler isolation port.**
- Support GPIO input measurement simultaneously.
- Measures range up to 12m
- Range accuracy: points cloud in centimeter
- Excellent ambient light suppression ability
- Embedded anti-interference algorithm, support multi-machine work

**Total solid structure, industrial IP67 anti-water design**

- Support Simple-HDR mode, Auto-HDR mode and Super-HDR mode, with fine scene adaptability.

**Applications**

- Robotics & AGV automatic navigated robot (obstacle detection, SLAM application)
- Drone collision avoidance, altitude hold
- Industrial safety area protection and proximity protection
- Safety surveillance
- 3D movement recognition
- 3D modeling

**Technical Details**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>78mm x 40mm x 30mm</td>
</tr>
<tr>
<td>Weight</td>
<td>G.W 140g    N.W 110g</td>
</tr>
<tr>
<td>Battery</td>
<td>Exclude</td>
</tr>
<tr>
<td>Power supply</td>
<td>9 ~ 12 V</td>
</tr>
<tr>
<td>Maximum power consumption</td>
<td>6 W</td>
</tr>
<tr>
<td>Quiescent power consumption</td>
<td>0.7 W</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40 ~ 85°C</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-10 ~ 55°C</td>
</tr>
<tr>
<td>Infrared VCSEL emitter</td>
<td>850 nm</td>
</tr>
<tr>
<td>Emitting angle</td>
<td>76° (horizontal) x 32° (vertical)</td>
</tr>
<tr>
<td>Maximum measuring distance</td>
<td>12 *2 m</td>
</tr>
<tr>
<td>Minimum measuring distance</td>
<td>0.25 m</td>
</tr>
<tr>
<td>Maximum output frame rate</td>
<td>Full field of view 35 fps</td>
</tr>
</tbody>
</table>
### Operating mode

- **Power-on initialization time**: 1500 ms

### Interface

- **Option**: USB (default), RS232, RS485 or CAN (Q1, 2019)

### Optocoupler isolation IO

- **Standard**: input x 1, output x 1

### Cable length

- **200 cm**

### Part List

**HPS-3D160 Solid-State LiDAR**

#### ECCN/HTS

- **ECCN**: EAR99
- **HSCODE**: 9031809090

#### Certification

- **Certification**: FCC, CE

#### Documents

- **Spec**
- **Manual for the software**
- **Drivers**
- **Debug**

#### Questions and Answers

- **Have a question about this? Ask people who**
HPS-3D160 Solid-State LiDAR
SKU 101990386
IN STOCK
1 Available

Description
Technical Details
Questions and Answers