



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Data Sheet



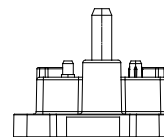
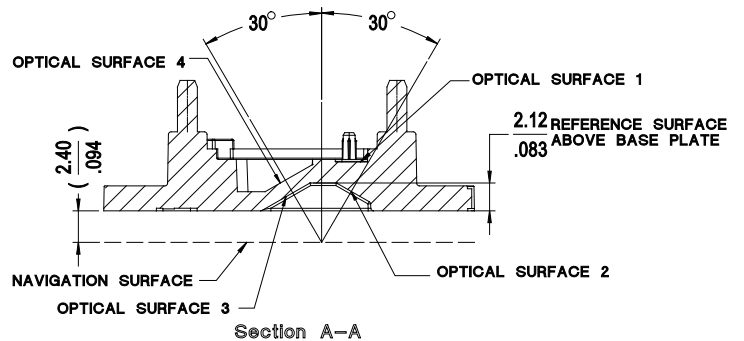
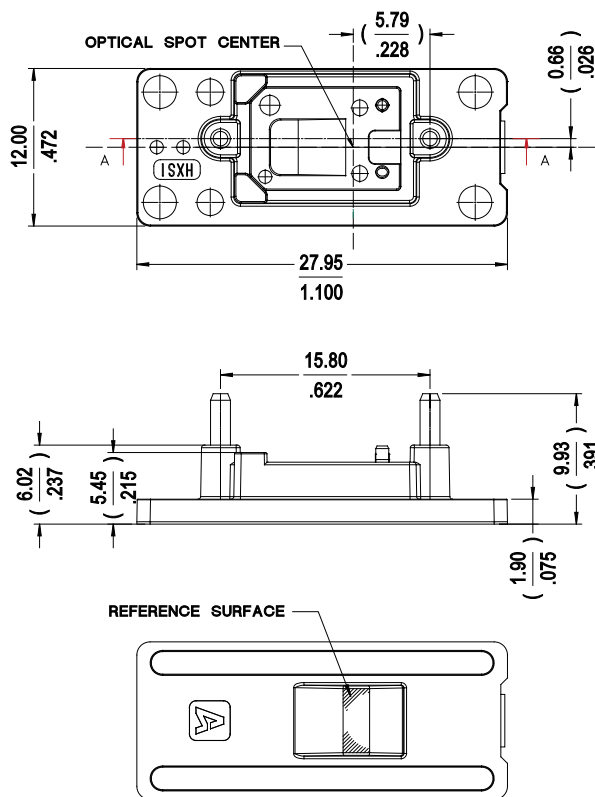
Lead (Pb) Free
RoHS 6 fully
compliant



Description

The ADNS-7100-001 laser mouse trim lens is designed for use with Avago Technologies ADNS-7630 one chip Bluetooth LaserStream™ sensors. Together with the VCSEL, the ADNS-7100-001 trim lens provides the directed illumination and optical imaging necessary for

proper operation of the sensor. ADNS-7100-001 trim lens is a precision molded optical component and should be handled with care to avoid scratching of the optical surfaces.



Notes:

1. Dimensions in millimeters/inches
2. Dimensional tolerance: $\pm 0.10\text{mm}$
3. Angular tolerance: $\pm 3^\circ$
4. Maximum flash: 0.20mm
5. () reference dimension

Figure 1. ADNS-7100-001 trim lens outline drawings and details

Mechanical Assembly Requirements

All specifications reference Figure 2, Optical System Assembly Diagram

| Parameters | Symbol | Minimum | Typical | Maximum | Units | Conditions |
|--|--------|---------|---------|---------|-------|---|
| Distance from Object Surface to Lens Reference Plane | A | 2.18 | 2.40 | 2.62 | mm | For ADNS-7100-001 with ADNS-7630 sensor |
| Distance from Object Surface to Sensor Pin Reference Plane | B | | 7.85 | | mm | Sensor Pin Reference Plane must be in contact with Lens Housing Surface |

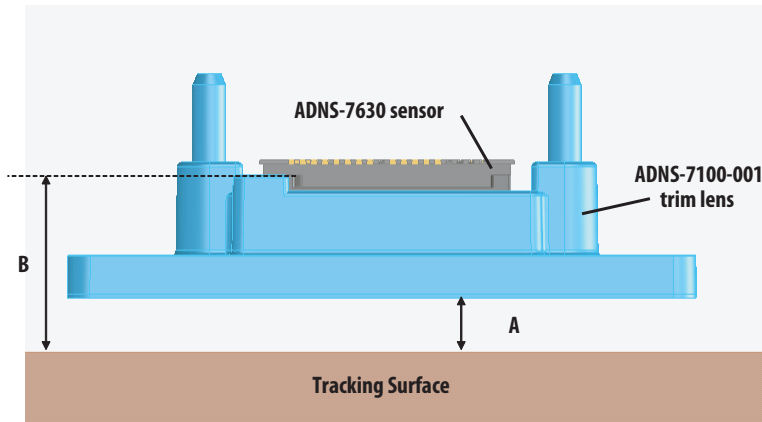


Figure 2. Optical system assembly cross-section diagram



Figure 3. Avago Technologies logo location

Lens Design Optical Performance Specifications

All specifications are based on the Mechanical Assembly Requirements.

| Parameters | Symbol | Min. | Typical | Max. | Units | Conditions |
|------------------------------------|-----------|--------|---------|--------|-------|----------------------------|
| Design Wavelength | λ | | 842 | | nm | |
| Lens Material* Index of Refraction | N | 1.5693 | 1.5713 | 1.5735 | | $\lambda = 842 \text{ nm}$ |

*Lens material is polycarbonate. Cyanoacrylate based adhesives should not be used as they will cause lens material deformation.

Mounting Instructions for the ADNS-7100-001 Laser Mouse Trim Lens to the Base Plate

An STEP or IGES format drawing file with design specifications for laser mouse base plate features is available. These features are useful in maintaining proper positioning and alignment of the ADNS-7100-001 trim lens when used with the Avago Technologies ADNS-7630 one chip Bluetooth LaserStream™ sensor. This file can be obtained by contacting your local Avago Technologies sales representative.

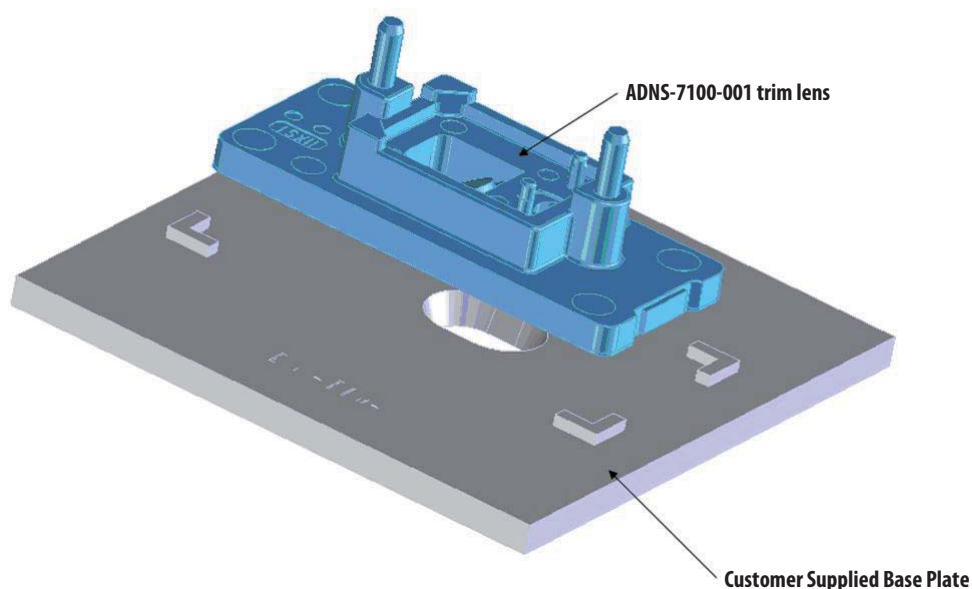


Figure 4. Illustration of base plate mounting features for ADNS-7100-001 trim lens

For product information and a complete list of distributors, please go to our web site: www.avagotech.com

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