

MV-DB500S-S

Single DOE Speckle Structured Light Stereo Camera



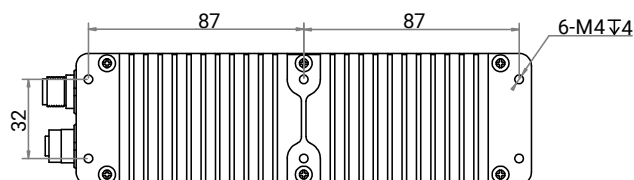
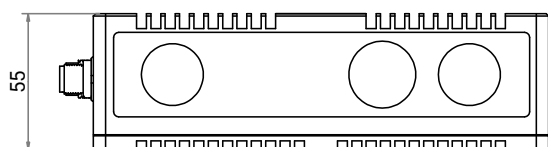
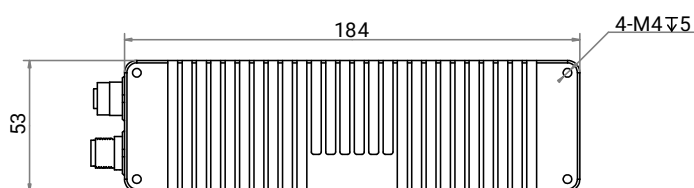
Introduction

MV-DB500S-S single DOE speckle structured light stereo camera adopts active binocular 3D imaging technology, and color camera to output high frame rate RGB-D images. It has built-in deep learning algorithm and 3D image process algorithm, and is applicable to singulation.

Applicable Industry

Singulation, etc.

Dimension



Unit: mm

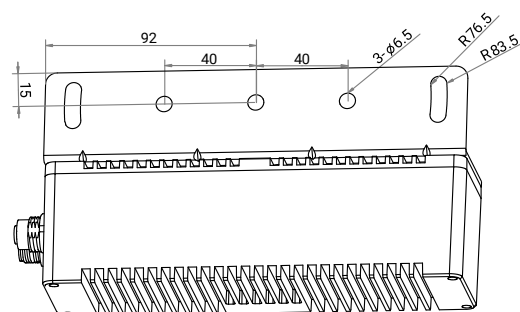
Available Model

MV-DB500S-S

Key Feature

- Adopts built-in deep learning algorithm and 3D image process algorithm.
- High-efficient laser module and accurate exposure synchronization provide stable performance and wider dynamic range.
- Achieves singulation in the large field of view via a single camera.
- Supports synchronized output of RGB images and depth images for secondary development.
- Adopts narrow band filters to have stronger anti-interference ability.
- Support one-click system calibration of single or multiple cameras.
- Ingress Protection (IP) 65.

Installation Axonometric Drawing



Unit: mm

Model	MV-DB500S-S
Performance	
Near field of view	580 mm × 470 mm
Far field of view	2500 mm × 1800 mm
Clearance distance (CD)	500 mm
Measurement range (MR)	1500 mm
Object detection range	700 mm installation height: 50 mm × 50 mm × 10 mm to 450 mm × 450 mm × 200 mm 1800 mm installation height: 100 mm × 100 mm × 10 mm to 1000 mm × 1000 mm × 700 mm
Depth image detection accuracy	Z: 4 mm @ 1 m; 8 mm @ 2 m
Resolution	Depth: 1408 × 1024 @ 30 fps RGB: 1536 × 1280 @ 30 fps
Scan frame rate	30 fps @ singulation mode
Data type	Original image (mono and color images), depth image, object position
Laser safety class	Class 1
Electrical feature	
Data interface	Gigabit Ethernet (1000 Mbit/s)
Digital I/O	12-pin M12 interface provides power and I/O, including opto-isolated input × 3 (Line 0/3/6), opto-isolated output × 3 (Line 1/4/7)
Power supply	12 VDC to 24 VDC
Power consumption	Typ. 6.76 W @ 24 VDC
Mechanical	
Dimension	184 mm × 55 mm × 53 mm (7.2" × 2.2" × 2.1")
Weight	Approx. 700 g (1.5 lb.)
Ingress protection	IP65
Temperature	Working temperature: 0 °C to 45 °C (32 °F to 113 °F) Storage temperature: -30 °C to 80 °C (-22 °F to 176 °F)
Humidity	20% RH to 85% RH (no condensation)
General	
Client software	HiViewer
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11
Certification	KC, CE

Measurement Range Diagram

