MV-RS-Ultra-L

Galvanometer Laser 3D Camera

RoHS CE

Introduction

MV-RS-Ultra-L galvanometer laser 3D camera adopts laser and high-precision galvanometer technology, combined with high-resolution color imaging system and built-in 3D image processing algorithm with high robustness to obtain the RGB-D image with sub-millimeter measurement accuracy.

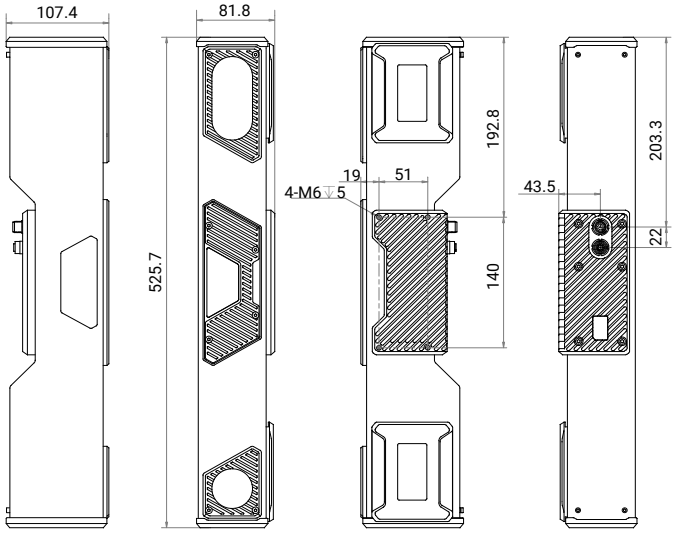
Available Model

MV-RS-Ultra-L

Applicable Industry

Workpiece loading and unloading, random bin picking, assembly guidance.

Dimension

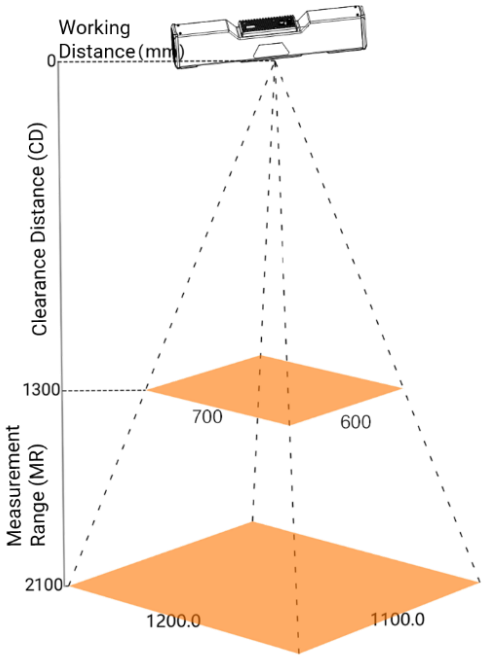


Unit: mm

Key Features

- Customized optical system provides high-quality image.
- Supports high-uniformity laser module to provide a more detailed point cloud.
- Supports multi-core parallel processing with high precision and high image acquisition rate.
- Supports alignment between depth images and RGB images, convenient for secondary development.
- Adopts high-strength carbon fiber design with high stability.

Measurement Range Diagram



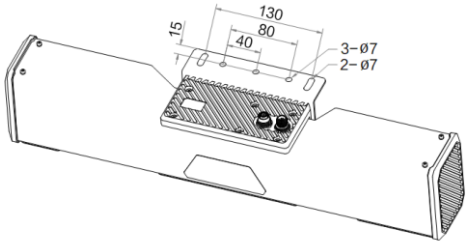
Specification

Model	MV-RS-Ultra-L
Performance	
Near field of view	700 mm × 600 mm @ 1300 mm
Typical field of view	1000 mm × 900 mm @ 1700 mm
Far field of view	1200 mm × 1100 mm @ 2100 mm
Clearance distance (CD)	1300 mm
Measurement range (MR)	800 mm
Repeatability (Z-axis)*1	0.08 mm @ 1800 mm
VDI/VDE accuracy*2	0.15 mm @ 1800 mm
Resolution	RGB: 4000 × 3000 Depth: 2448 × 2048
Data acquisition time	0.4 s to 0.9 s
Image output delay	1.0 s to 1.7 s
Data type	Original image (mono and color images), depth image, RGB-D image
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	24 VDC
Power consumption	Typ. 15 W @ 24 VDC
Mechanical	
Dimension	525.7 mm × 81.8 mm × 107.4 mm (20.7" × 3.2" × 4.2")
Weight	Approx. 2.35 kg (5.2 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)
Laser	
Laser safety class	Class 2
Wavelength	638 nm
General	
Client software	RobotPilot, HiViewer
Operating system	32/64-bit Windows 7/10, 64-bit Windows 11
Certification	RoHS, CE

**1: This value is the standard deviation of 100 depth value measurements. The measurement target is a ceramic plate.*

**2: The measurement targets are double ceramic balls with a diameter of 30 mm and a ball spacing of 100 mm.*

Installation Axonometric Drawing



Unit: mm

Hangzhou Hikrobot Co. Ltd.
en.hikrobotics.com