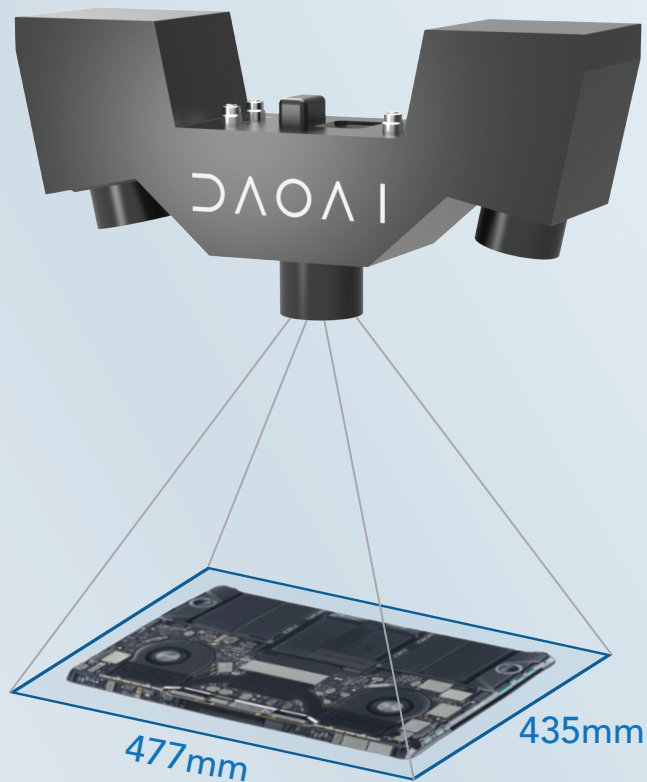


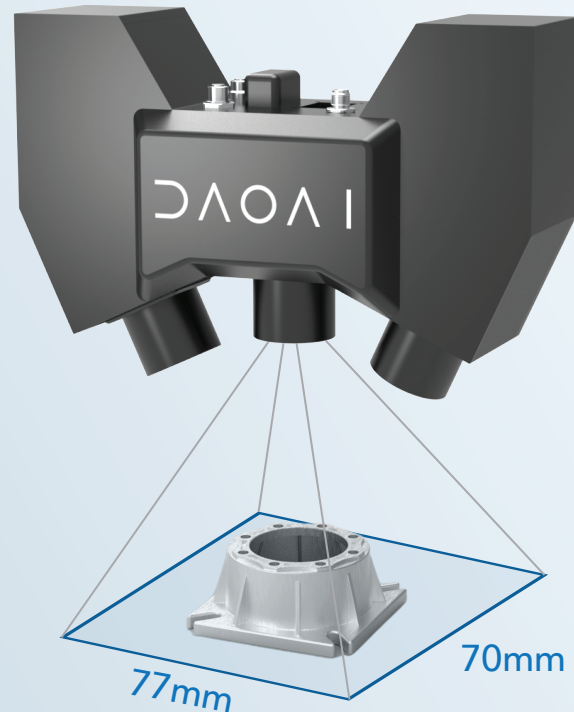
ENHANCED 3D INSPECTION ACROSS ALL SURFACES

High-Precision 3D Inspection Camera with HDR Imaging

AD-470



AD-080



18MP
Camera

In-Field
Calibration

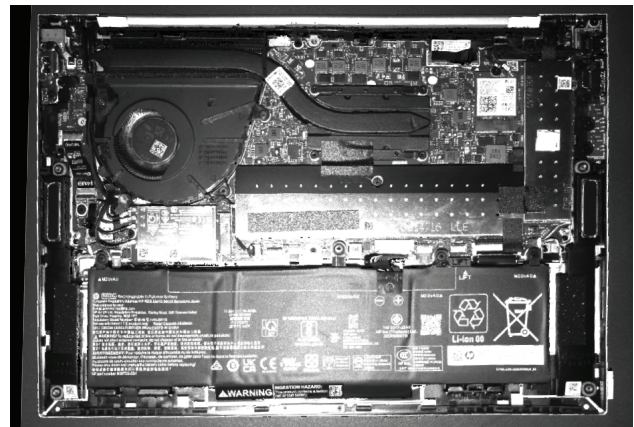
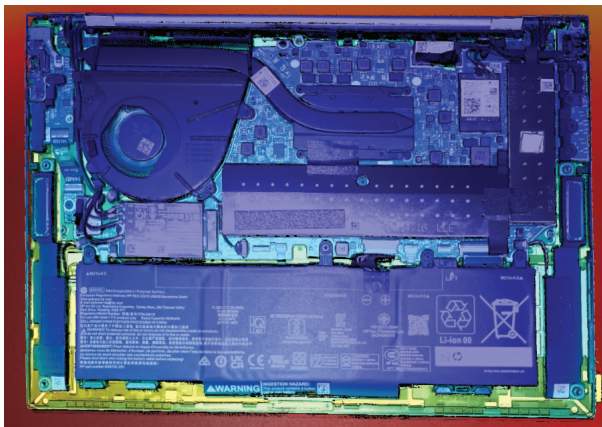
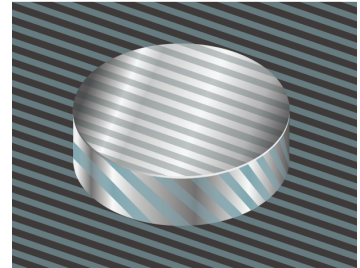
3D HDR
Algorithm

Point Cloud
Filters

2 Direction
Projection

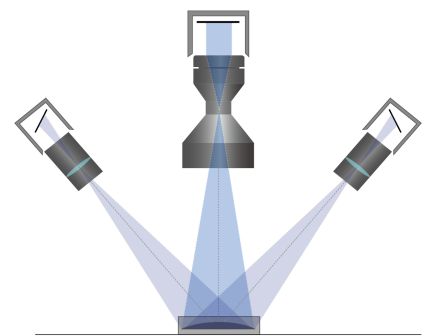
Clear Imaging with 3D HDR Technology

3D HDR algorithm enables clear imaging of both dark and reflective objects in a single capture. Without HDR, capturing black objects often results in overexposed highlights on reflective surfaces—and vice versa. Our HDR solution ensures balanced exposure and high-fidelity detail across all surface types in all environment.



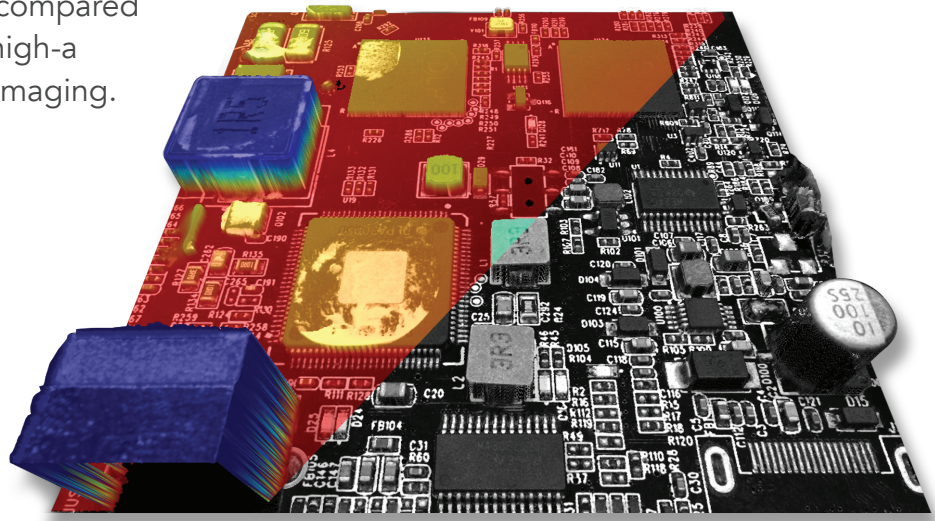
Dual-Projector Configuration

Dual-projector design ensures uniform brightness across the measurement plane, eliminating the uneven illumination commonly seen with single-projector setups. This configuration also prevents contrast distortion in point cloud reconstruction, delivering cleaner, more accurate data, especially in regions with abrupt brightness transitions.



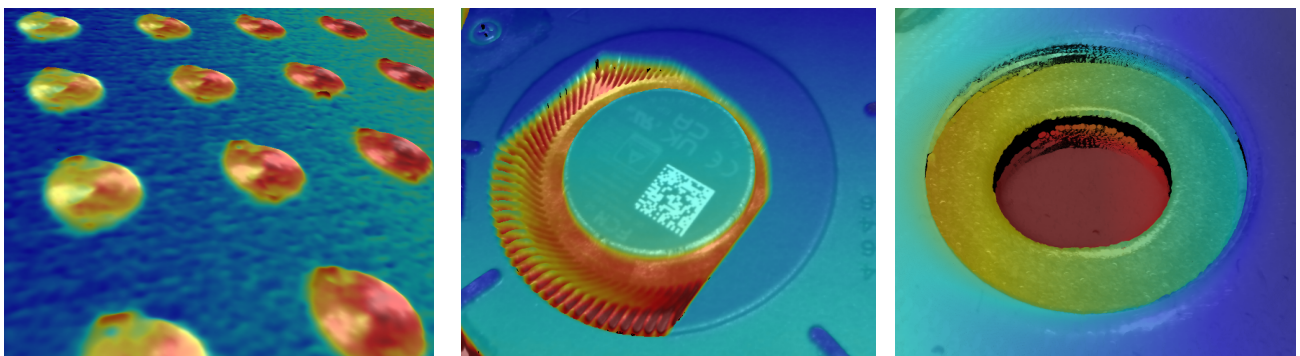
18 Megapixel 10GigE CMOS Image Sensor, Twice the Speed of USB 3.0 with Extended Range

This allows the DaoAI 3D camera to capture with ultra-high resolution using an 18MP sensor and 10GigE interface—delivering speed twice that of USB 3.0 with superior anti-interference and up to 100m transmission distance (compared to USB's 5m). Ideal for high-accuracy and wide-field imaging.



Point Cloud Filters

We support various types of filters, such as contrast filter, outlier filter, cluster filter, Gaussian filter, hole filling, etc. For black objects, reflective objects, complex objects, and others, we can further remove invalid points in the point cloud to improve its quality.

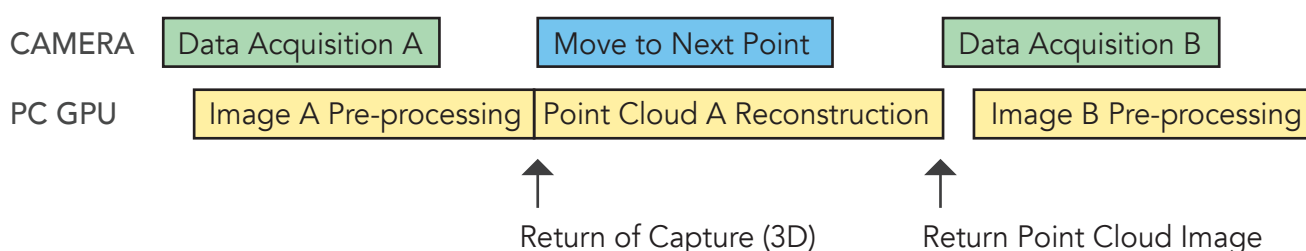


The point cloud results after applying the filter to ensure optimal imaging accuracy.

Parallel Processing

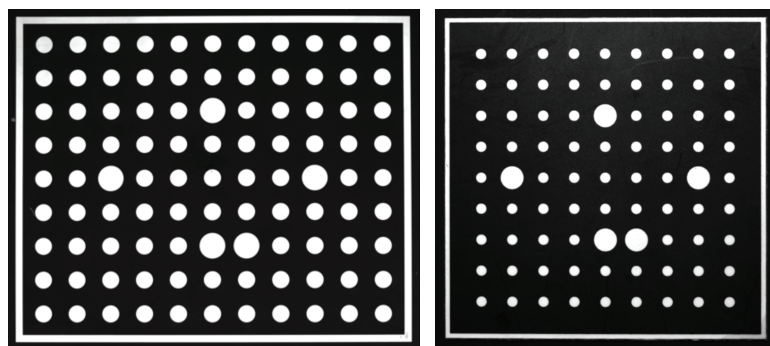
We support parallel processing of raster image acquisition and image pre-processing. Once pre-processing is complete, the 3D capture returns control while 3D reconstruction calculations are in progress, allowing the camera to move to the next capture point.

After the 3D reconstruction is completed and point cloud data is obtained, the camera can immediately start the next capture. This enables image acquisition, camera movement, and data processing to be performed in parallel, increasing efficiency.



In-field Calibration Procedure

In-field calibration is a maintenance tool to verify and correct the dimension trueness of 3D cameras. If accuracy verification shows the camera is not sufficiently accurate for the application, then a correction can be performed in **less than 3 minutes** to increase the accuracy.



AD-470

AD-080

We provide a calibration board along with the camera, please refer to online documentations or contact us for more details.

Camera Spec

	AD-470	AD-080
Working Distance	510mm	186mm
FOV	477x435mm@510mm	77x70mm@186mm
Measurement Range	±40mm	±8mm
Repeatability	40um	4um
Image Pixel	18MP	
Resolution	4496x4096	
Connector	10-GigE Ethernet Adapter	
Power	24V DC 10A	
Light	White LED	
Cooling System	Passive	
Supports independent control of 2D and 3D measurements; compatible with external light source.		

Recommended PC Spec

CPU	Intel Core i7-10700K	GPU	NVIDIA RTX 4080 (MIN:3060)
RAM	32 GB	Operating System	Windows 10 or later
Storage	1TB SSD + 4TB HDD	Adapter	10-GigE Ethernet Adapter
Power Supply	850W	Ethernet Ports	At least 2 GigE Ethernet Ports



We supercharge industrial automation and manufacturing inspection with AI and 3D vision. With our powerful AI-driven machine vision, automation isn't just the future—smarter inspection is available now.

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