

3D-A5000 SERIES AREA SCAN 3D CAMERA

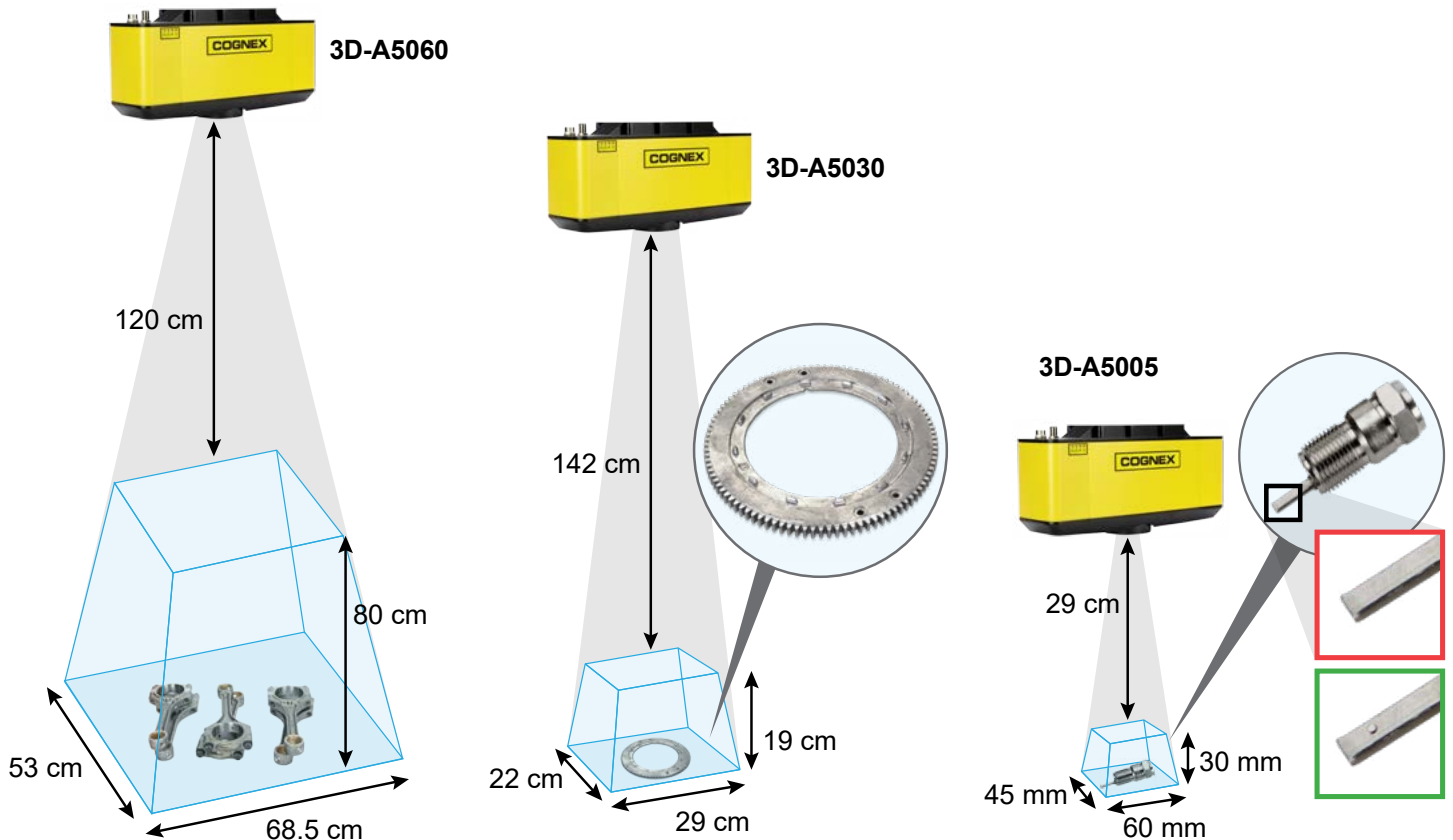
Cognex's 3D-A5000 series is a factory-calibrated, IP65-rated area scan 3D camera designed to capture high-resolution 3D images. The 3D-A5000 features patent-pending 3D LightBurst™ technology which rapidly acquires images to maximize throughput. High-resolution 3D images combined with industry-leading Cognex 3D vision tools enable reliable and accurate solutions to applications such as assembly verification, in-line measurement, and robotic guidance. The 3D-A5000 offers a variety of fields of view and measurement ranges to accommodate applications in the automotive, consumer goods, and logistics industries.



Benefits

- Patent-pending 3D LightBurst technology enables rapid image acquisition
- More than 1.5 million 3D data points detect fine features on parts
- High Dynamic Range (HDR) mode captures scenes with high contrast
- Powerful, industry proven VisionPro® 3D tools solve challenging 3D applications
- Factory calibration delivers accurate measurement results in real-world units
- Rugged IP65-rated housing provides protection in harsh factory environments

Extended Working Volume

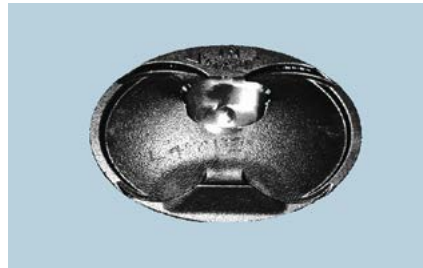
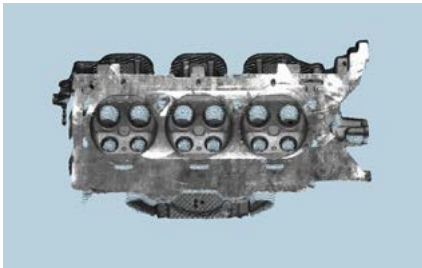


Completes more 3D inspections in less time

The 3D-A5000 features patent-pending 3D LightBurst technology which casts a unique blue light pattern on a part to acquire high-resolution 3D images at an unparalleled speed. It delivers a full field-of-view (FOV) 3D point cloud image as fast as 200 milliseconds, allowing higher throughput and shorter cycle times for time-critical in-line applications.

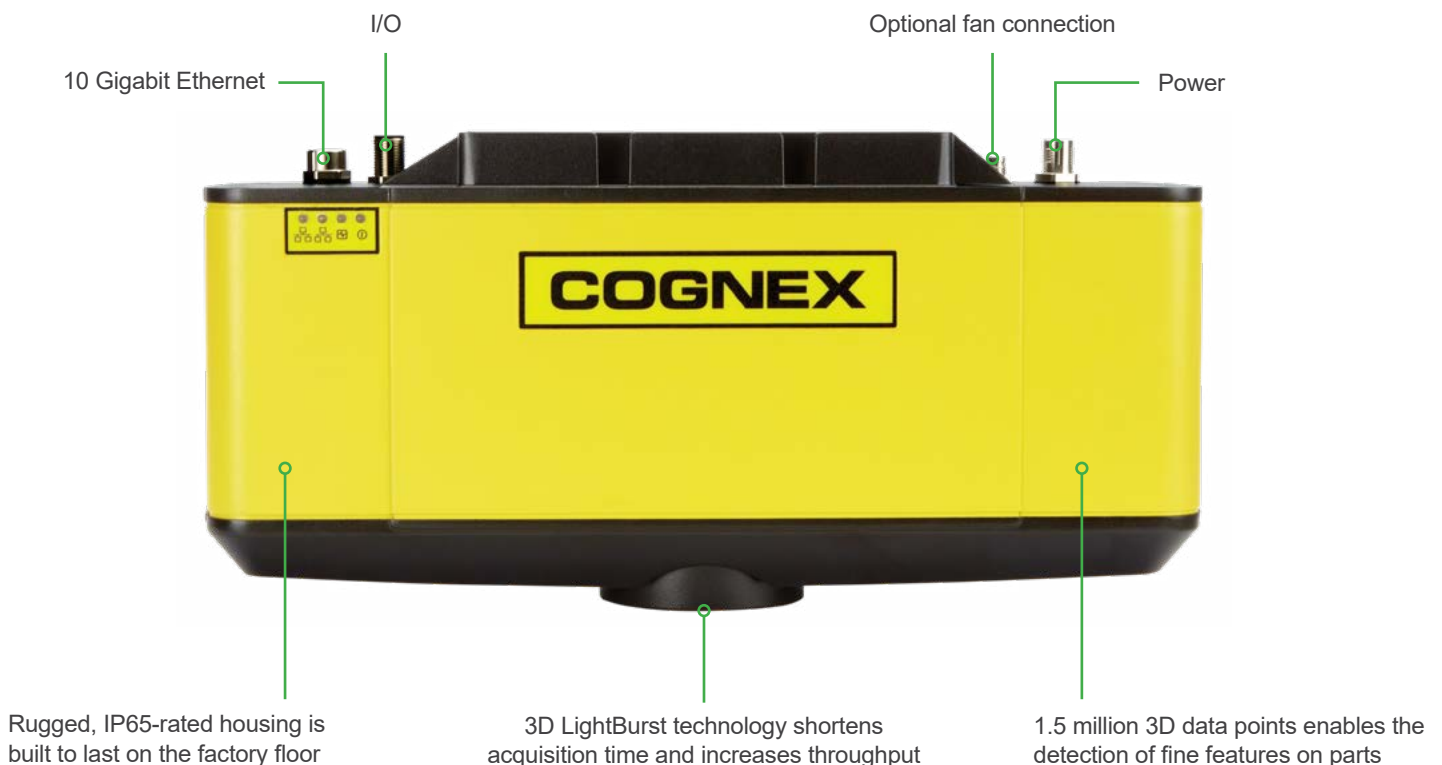
Delivers accurate, repeatable 3D vision inspection results

The 3D-A5000 delivers high-resolution 3D point cloud images constructed from over 1.5 million 3D data points. These high-resolution images coupled with a powerful Cognex 3D toolset in VisionPro, including PatMax 3D™, allow the 3D-A5000 to solve a wide range of applications from assembly verification to in-line measurement and robotic guidance.



Performs reliably in harsh factory environments

The 3D-A5000 has a rugged IP65-rated, die cast aluminum housing that is built to last on the factory floor. The industrial design ensures consistent measurement results, even under varying temperatures.



SPECIFICATIONS

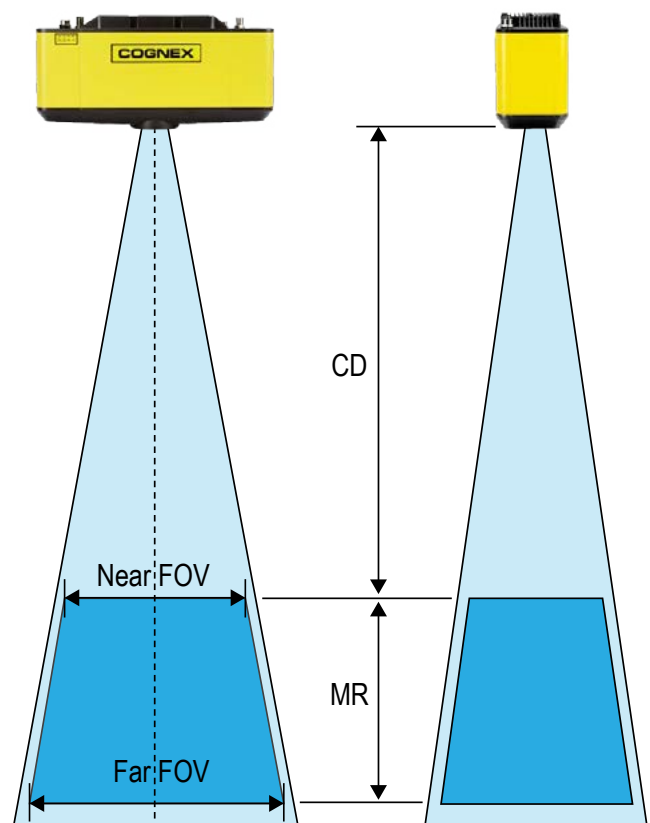
Dimensions	324 x 137 x 97 mm
Weight	3.0 kg
Operating Temperature	0–40 °C (32–104 °F)
Storage Temperature	-10–60 °C (14–140 °F)
Operating Humidity	<85% (non-condensing)
Protection	IP65
Shock	50 gs (11 ms half-sine pulse)
Vibration	4 gs (10–120 Hz for 30 minutes)
Trigger	Trigger input voltage limits: 24 VDC Input ON: >10 VDC (>6 mA) Input OFF: <2 VDC (<1.5 mA)
Power	Voltage: +24 VDC (22–26 VDC) Current: 6.0 A max
Acquisition Time	200 msec
Software	VisionPro
Ethernet	10 Gigabit Ethernet interface
Certifications	CE, FCC, KCC, TUV SUD NRTL, RoHS
Optional Accessories	Fan

For minimum PC requirements, please refer to the 3D-A5000 user manual.

MODELS

Extended Working Volume	3D-A5060	3D-A5030	3D-A5005
Clearance Distance (CD)	1200.0 mm	1415.0 mm	290.3 mm
Measurement Range (MR)	800.0 mm	190.0 mm	30.0 mm
Near FOV	415 x 325 mm	250 x 180 mm	54 x 42 mm
Far FOV	685 x 530 mm	290 x 220 mm	60 x 45 mm
Resolution XY	315–500 µm	191–204 µm	41–45 µm
Resolution Z	248–690 µm	166–213 µm	7–8 µm
Repeatability Z (σ)	120–250 µm	80–110 µm	7 µm

Extended Working Volume



COGNEX

Companies around the world rely on Cognex vision and barcode reading solutions to optimize quality, drive down costs and control traceability.

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