

3D-A5000 SERIES AREA SCAN 3D CAMERA

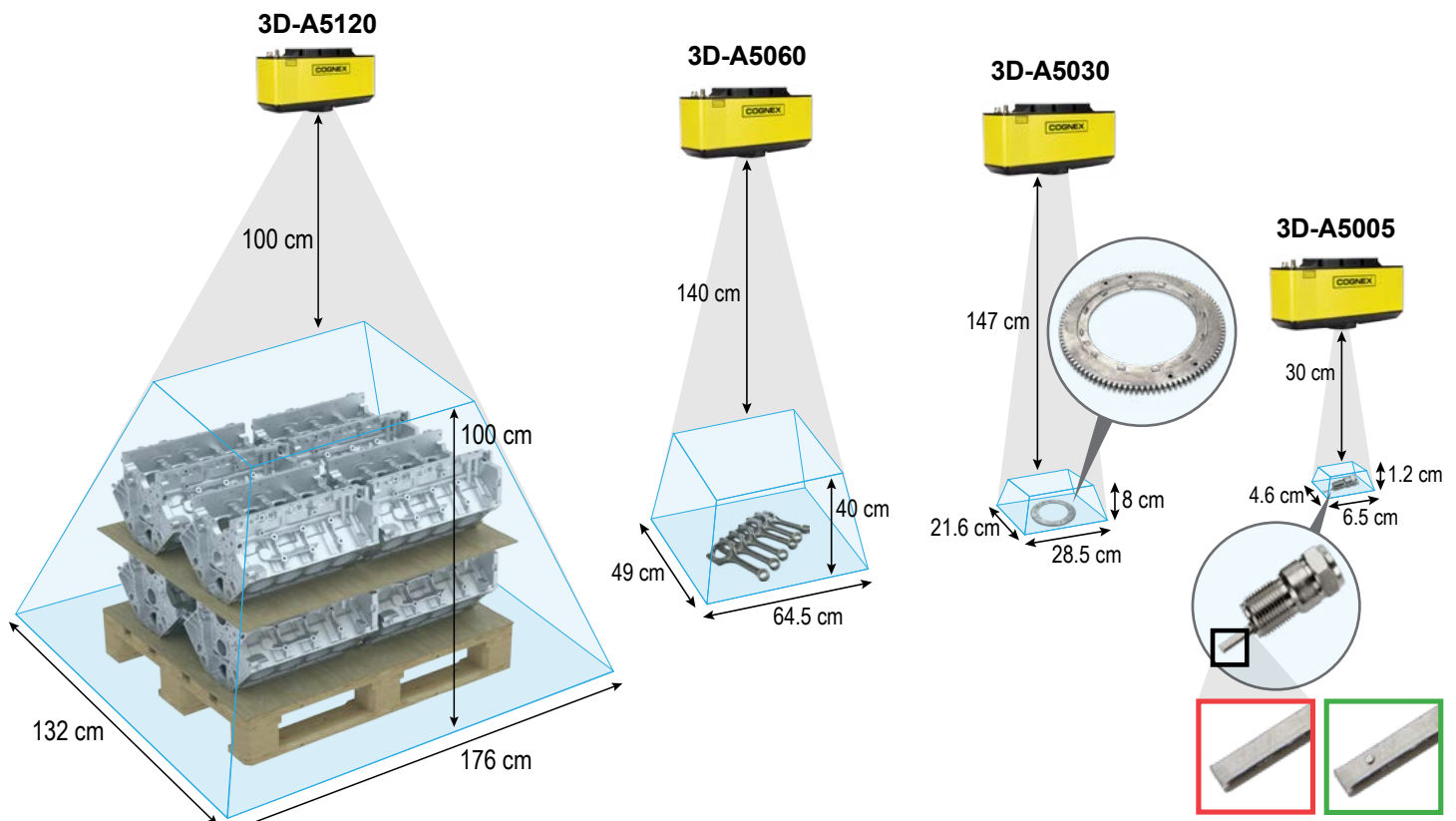
Cognex's 3D-A5000 series is a factory-calibrated, IP65-rated area scan 3D camera designed to capture high-resolution 3D images. The 3D-A5000 features patent-pending 3D LightBurst™ technology which rapidly acquires images to maximize throughput. High-resolution 3D images combined with industry-leading 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

Standard Working Volume

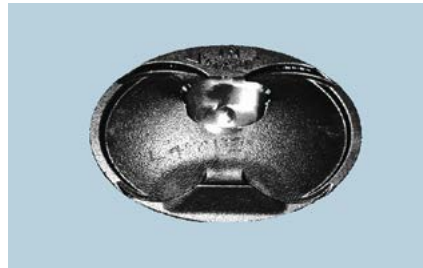
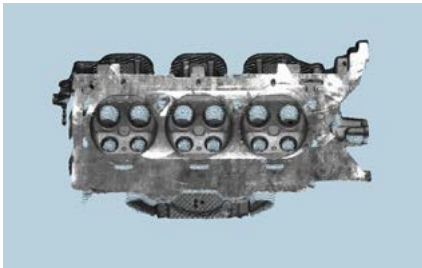


Completes more 3D inspections in less time

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.

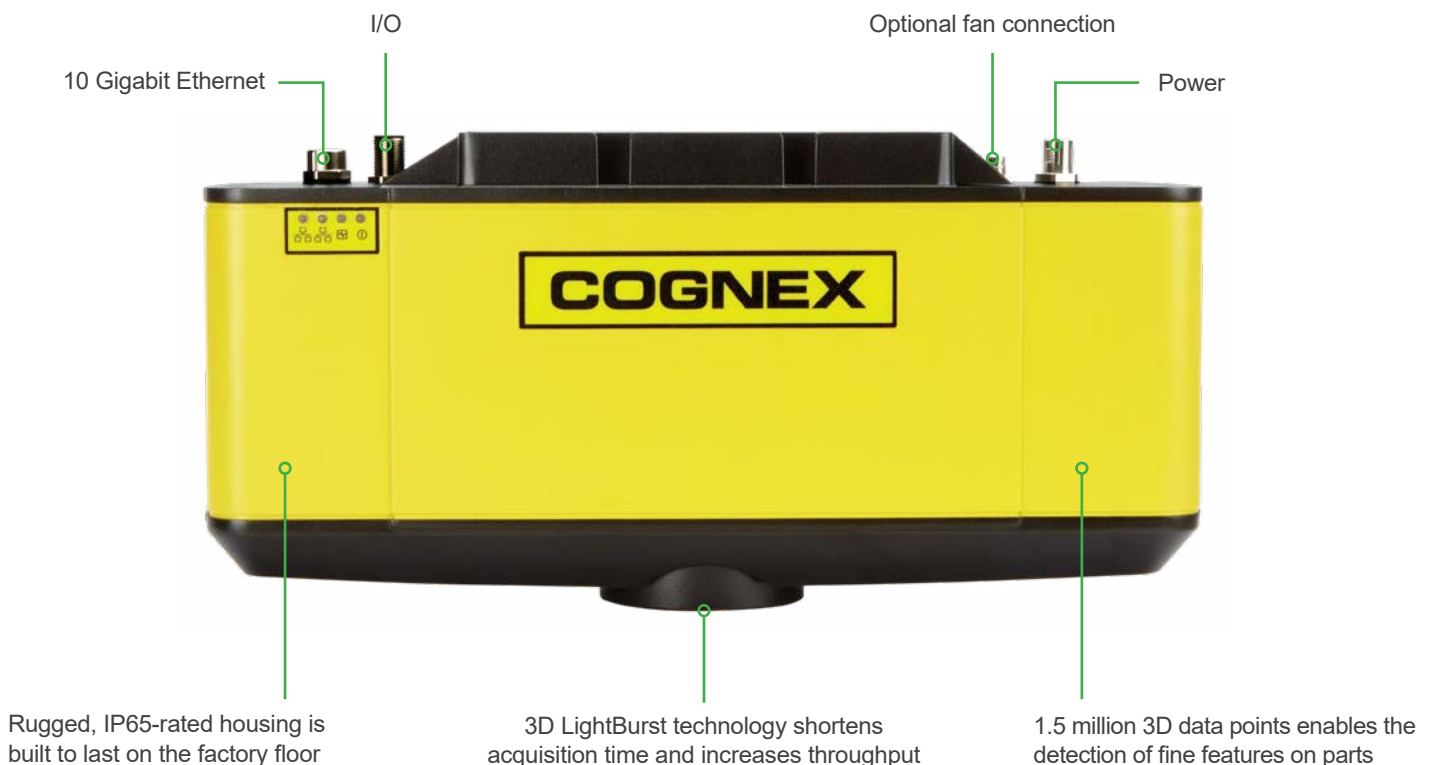
Delivers accurate, repeatable 3D vision inspection results

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.



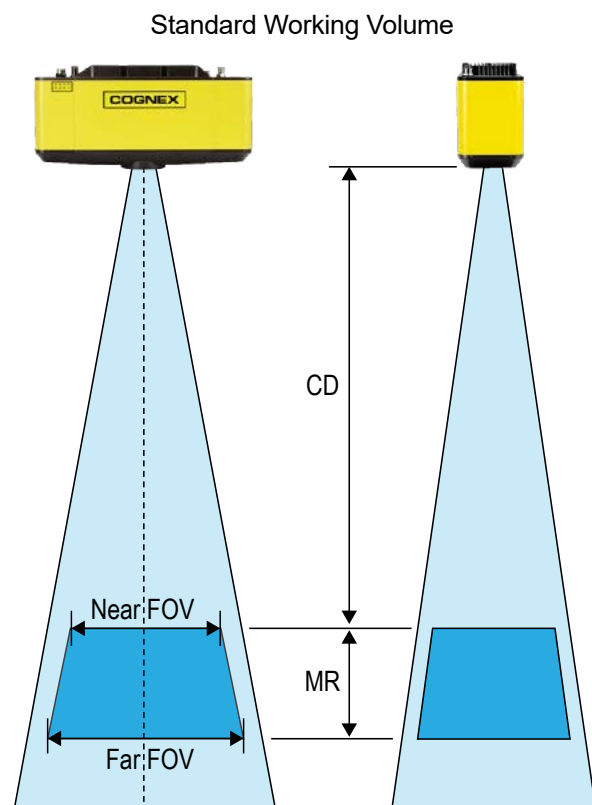
SPECIFICATIONS

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

Standard Working Volume	3D-A5120	3D-A5060	3D-A5030	3D-A5005
Clearance Distance (CD)	1000.0 mm	1400.0 mm	1465.0 mm	299.3 mm
Measurement Range (MR)	1000.0 mm	400.0 mm	80.0 mm	12.0 mm
Near FOV	900 x 675 mm	520 x 390 mm	280 x 210 mm	60 x 44 mm
Far FOV	1760 x 1320 mm	645 x 490 mm	285 x 216 mm	65 x 46 mm
Resolution XY	626–1223 μm	361–454 μm	195–200 μm	42–44 μm
Resolution Z	414–1656 μm	338–559 μm	178–198 μm	7–8 μm
Repeatability Z (σ)	250–1000 μm	100–150 μm	55–66 μm	5–6 μm



COGNEX

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

Corporate Headquarters One Vision Drive Natick, MA 01760 USA

Regional Sales Offices

Americas

North America +1 844-999-2469
Brazil +55 (11) 2626 7301
Mexico +01 800 733 4116

Europe

Austria +49 721 958 8052
Belgium +32 289 370 75
France +33 1 7654 9318
Germany +49 721 958 8052

Hungary +36 800 80291
Ireland +44 121 29 65 163
Italy +39 02 3057 8196
Netherlands +31 207 941 398
Poland +48 717 121 086
Spain +34 93 299 28 14
Sweden +46 21 14 55 88
Switzerland +41 445 788 877
Turkey +90 216 900 1696
United Kingdom +44 121 29 65 163

Asia

China +86 21 6208 1133
India +9120 4014 7840
Japan +81 3 5977 5400
Korea +82 2 539 9980
Malaysia +6019 916 5532
Singapore +65 632 55 700
Taiwan +886 3 578 0060
Thailand +66 88 7978924
Vietnam +84 2444 583358

© Copyright 2019, Cognex Corporation.

All information in this document is subject to change without notice. All Rights Reserved. Cognex and VisionPro are registered trademarks of Cognex Corporation. PatMax 3D and LightBurst are trademarks of Cognex Corporation. All other trademarks are property of their respective owners. Lit. No. DS3DA5000EN-08-2019

www.cognex.com