

Mech-Eye 3D Laser Profiler LNX-8000 Series

- 4096 data points per profile
- Scan rate up to 15 kHz

For high-precision measurement and inspection in industries such as consumer electronics, EV battery, and automotive.



Discover the Benefits of Mech-Eye LNX-8000

4K 4K Resolution

4096 data points per profile produce high-quality point clouds, ensuring reliable performance of 3D inspection and measurement.

X Resolution Down to 9μm

X resolution down to 9μm* and Z repeatability down to 0.2μm*, allowing for high-precision inspection and measurement of tiny features or defects.

*Applicable to LNX-8030

IP67 IP67 Protection

Rugged enclosure with IP67 protection rating to withstand harsh industrial environments with dust, vibration, humidity, high temperatures, etc.

⚡ Scan Rate Up to 15kHz

Scan rate of 3.3 kHz (scan of full FOV) and up to 15 kHz (scan of full X measurement range). Advanced optics and algorithms deliver highly accurate 3D data at a faster speed.

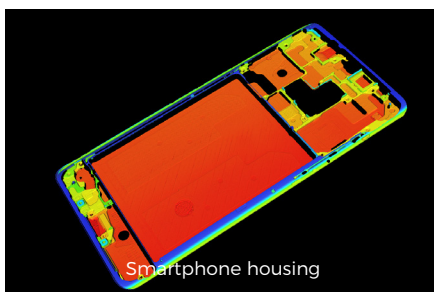
HDR Single-Shot HDR

Single-shot HDR function makes it possible to scan dark (low reflectivity) and reflective (high reflectivity) surfaces in one exposure.

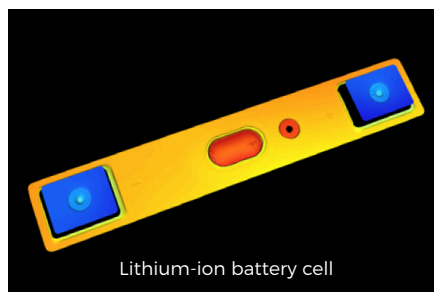
🔗 Easy to Use

Integrated with Mech-Vision and Mech-DLK for efficient application deployment, also compliant with GenICam3.0 and GigE Vision standards.

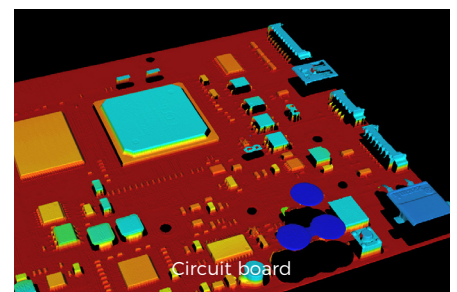
Point Cloud Examples



Smartphone housing

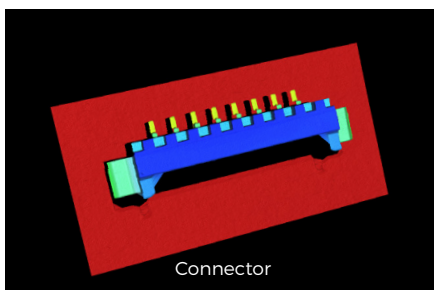


Lithium-ion battery cell

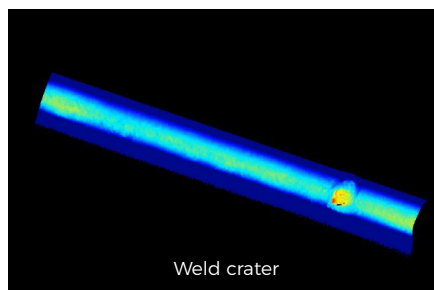


Circuit board

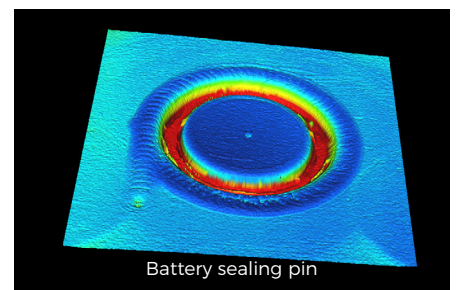
▲ Point clouds obtained by Mech-Eye LNX-8080, color rendered by height



Connector



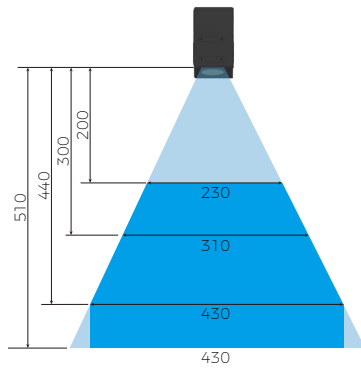
Weld crater



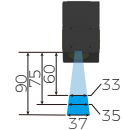
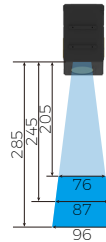
Battery sealing pin

▲ Point clouds obtained by Mech-Eye LNX-8080, color rendered by height

Key Specs



▼ Field of View (mm):



Model

LNX-8300

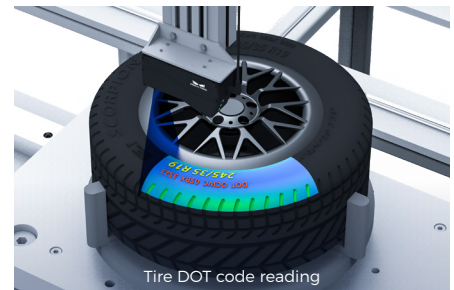
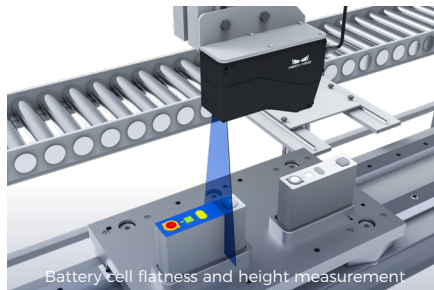
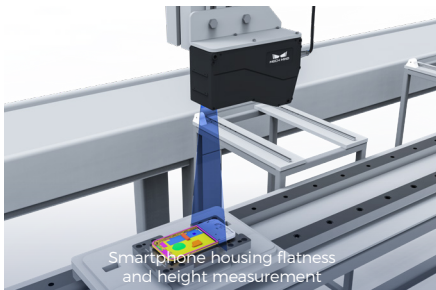
LNX-8080

LNX-8030

Data points/profile	4096	4096	4096
Reference distance(RD)	300 mm	245 mm	75 mm
Measurement range Z	310 mm	80 mm	30 mm
Measurement range X	230/310/430 mm	76/87/96 mm	33/35/37 mm
Resolution X	105 μ m	23.5 μ m	9 μ m
Repeatability Z	2 μ m	0.5 μ m	0.2 μ m
Linearity Z	$\pm 0.02\%$ of F.S.	$\pm 0.02\%$ of F.S.	$\pm 0.02\%$ of F.S.
Scan rate	3.3-15 kHz	3.3-15 kHz	3.3-15 kHz
Dimensions	Approx. 195 × 61 × 109 mm	Approx. 182 × 63 × 112 mm	Approx. 133 × 61 × 102 mm
Weight	Approx. 1.2 kg	Approx. 1.2 kg	Approx. 0.9 kg
Laser	Blue (405 nm, Class 2M)	Blue (450 nm, Class 2M)	Blue (405 nm, Class 2)
Lens inclination	19°	22°	30°
Input voltage	24V DC	24V DC	24V DC
Max. input power	48W (25W for sensor head)	48W (25W for sensor head)	48W (25W for sensor head)
Communication interface	Gigabit Ethernet	Gigabit Ethernet	Gigabit Ethernet
Operating temperature	0-45°C	0-45°C	0-45°C
Safety and EMC	CE/FCC/VCCI/KC/ISED/NRTL	CE/FCC/VCCI/KC/ISED/NRTL	CE/FCC/VCCI/KC/ISED/NRTL
IP rating	IP67	IP67	IP67
Cooling	Passive	Passive	Passive

For High-Resolution Industrial Measurement and Inspection

- Industries: Consumer electronics, EV battery, automotive, etc.
- Application scenarios: For high-precision inspection and measurement in applications such as EV battery inspection, automotive, and consumer electronics (smartphone housing and laptop housing).



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