

# Geres Gan Metrology-Grade Handheld Laser Scanning System

# SMART HANDHELD BLUE LASER 3D SCANNER



ZG TECHNOLOGY CO., LTD.

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#### **ABOUT ZG**

ZG Technology is a professional 3D scanner solution provider, which is an expert in research and developing 3D technology. ZG portfolio includes metrology–grade portable 3D laser scanner, optical tracking 3D scanner, smart in–line inspection system, smart full–color 3D scanner and photogrammetry system, which can widely meet different customer requirements, such as quality inspection, reverse engineering, VR&AR etc.

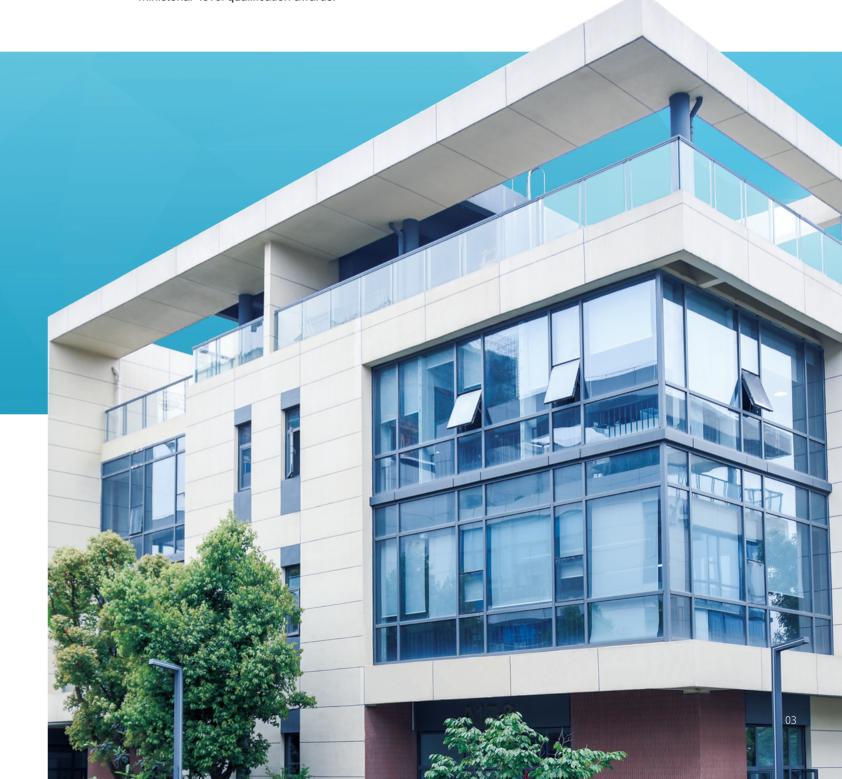
# A Professional 3D Scanner Solution Provider in the World

#### **AWARDS & CERTIFICATES**



#### **TECHNICAL TEAM**

ZG Technology R&D team has 7 doctors and 15 masters, all are the experts in photogrammetry and 3D measurements. ZG Technology is based on independent Intellectual Property Right, cutting edge technologies and achievements from Wuhan University, which gets more than 130 national patents and software copyrights, and has received more than 20 national and ministerial–level qualification awards.



# CereScan Smart Handheld Blue Laser 3D Scanner Net Weight 650g CereScan, ZG's newly launched mini-size portable metrology-grade 3D scanner, is designed to optimize the scanning performance for hard-to-reach areas like pocket and narrow groove etc. With the features of mini size and lightweight design, users can easily operate the device with one hand, which brings great simpleness to the scanning process. Dimension Based on the powerful and sophisticated algorithm, CereScan can provide users with 215×95×45mm rapid and efficient 3D scanning experience. Equipped with built-in photogrammetry system inside, it also can be used to scan big workpieces with better volumetric accuracy control. 75mm 295mm

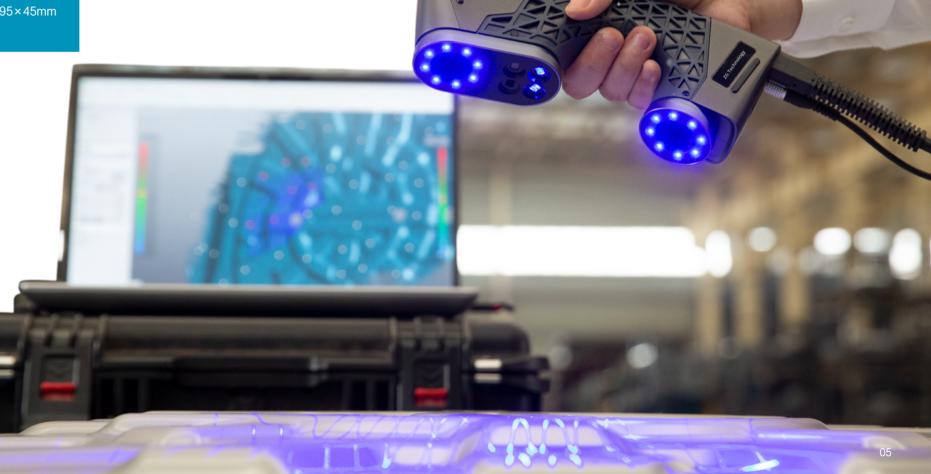




- · Integrated anti-slip scanner cover
- · Great ergonomic design for comfortable operation



- · Lightweight alloy protective shell
- · Brand-new mini structure design
- · Easy-to-use



Mobilephone

166mm

#### PRODUCT FEATURES



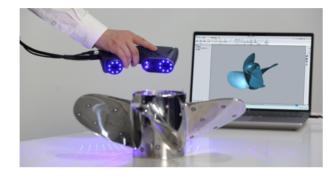
#### **Great Adaptability**

- Shorter camera distance in mini size to capture hardto-reach places like deep groove, pocket and hole etc easily
- Scanning area up to 600×550mm. good to scan big workpiece



#### Blue Laser Technology

- · 34 blue laser lines for big scanning area
- · Scan dark & shiny part directly without spraying



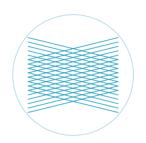
#### Significant Efficiency

- · Scanning speed up to 2,480,000 measurements/s
- · Scan tremendous mesh data in real time



#### **High Accuracy**

- · Accuracy up to 0.01mm under ultra-fine scanning mode
- Volumetric accuracy up to 0.015mm+0.02mm/m with built-in photogrammetry system



#### Standard Scanning Mode

26 blue laser lines to improve scanning efficiency dramatically



#### Ultra-fine Details Scanning

7 parallel blue laser lines to feature more details



#### Single laser line scanning

To scan hard-to-reach places well



#### **Built-In Photogrammetry System**

To secure better volumetric accuracy for big workpiece easily only by adopting scale bar, no need to place coded marker anymore



#### Intelligent Interactive System

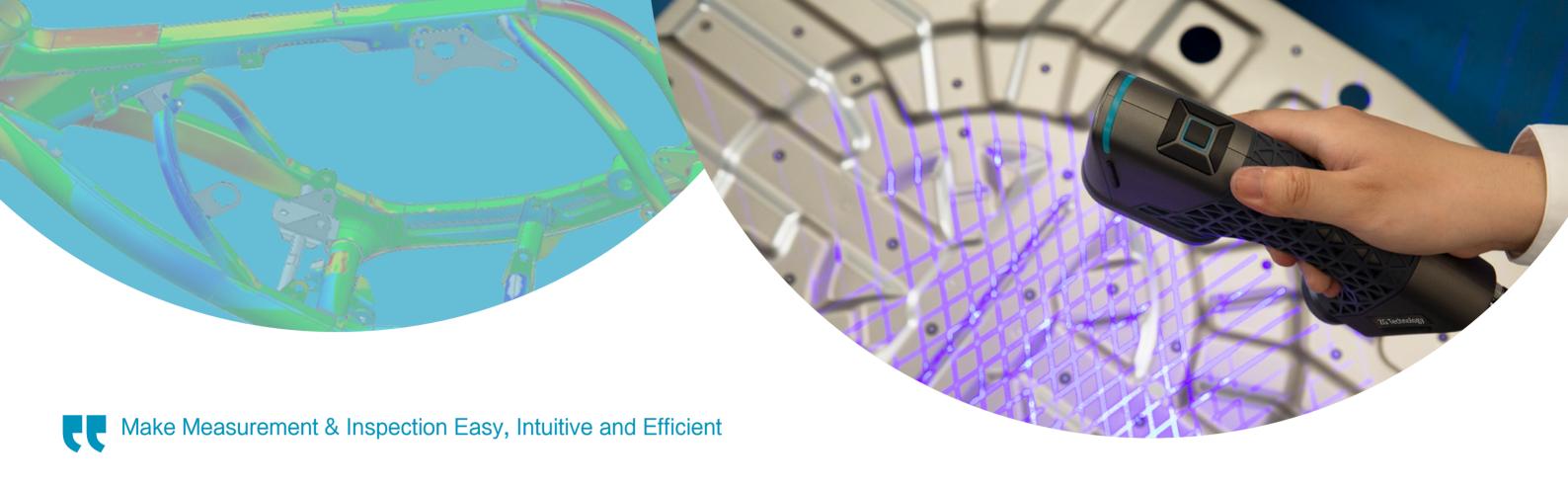
To realize the remote control scanning process by simple button operations



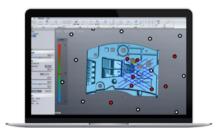
#### Wireless Scan Mode

By adopting wireless module into CereScan, it will be free to move and easy to scan

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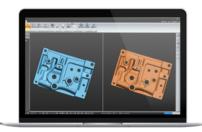


## **SOFTWARE FEATURES**



Real-time Mesh & Local Resolution

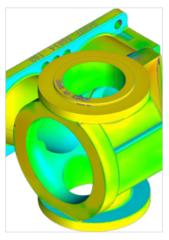
- · Scan mesh data in real-time
- Optimize mesh quality to get more details
- Reduce data file size to save postprocessing time



Built-in Inspection Module

- Support GD&T inspection
- Generate 3D comparison color map & measurement report

## **APPLICATION DIRECTION**









#### **Quality Control**

- · CAD alignment
- · Dimensional inspection
- Virtual assembly

#### Inspection & Maintenance

- · GD&T
- · Wear inspection
- Trend analysis

## Reverse Engineering

- · Reverse mappings
- Rapid prototyping and manufacturing
- · Industrial fixture design

#### Culture

- Cultural relic & sculpture digitalization
- · Art and design

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# APPLICATION CASE



### AUTOMOTIVE

- · Reverse engineering
- · Competitive product analysis
- · Automotive repacking
- · Interior customization
- · Modeling and design



#### **AEROSPACE**

- Rapid prototyping
- · Quality control & inspection
- · (MRO) wear and tear analysis
- Aerodynamics
- · Stress analysis



#### **HEAVY INDUSTRY**

- · Quality control
- · Reverse engineering
- MRO and wear analysis
- Mechanical & tooling design and modification
- OEM and parts recycling



#### **MOLD & CASTING**

- · Quality inspection & control
- · Virtual assembly
- · Wear and tear analysis
- · Reverse engineering
- Industrial fixture design & modification



#### **CULTURE & EDUCATION**

- · Cultural relic
- Art
- Sculpture
- · Education & Research



#### **MEDICAL**

- Orthosis & prosthesis design and manufacture
- · Plagiocephaly treatment
- · Wound monitoring
- · Biological specimen



# TECHNICAL SPECIFICATIONS

Model	CereScan
Measurement Rate-Standard Mode	2,480,000 measurements/s
Measurement Rate-Fine Mode	1,250,000 measurements/s
Scanning Area	Up to 600×550mm
Laser Source Class II (Eye Safe)	26 blue laser lines+extra single blue laser line+extra 7 blue laser lines
Resolution	Up to 0.02mm
Accuracy-Standard Mode	Up to 0.02mm
Accuracy-Fine Mode	Up to 0.01mm
Volumetric Accuracy-Standard Mode	0.015+0.035mm/m
Volumetric Accuracy+Photoshot Max	0.015+0.015mm/m
Volumetric Accuracy+Scale Bar	0.015+0.02mm/m
Stand-off Distance-Standard Mode	300mm
Stand-off Distance-Fine Mode	150mm
Depth of Field-Standard Mode	450mm
Depth of Field-Fine Mode	150mm
Depth of Field-Furthest Mode	550mm
Weight	0.65kg
Dimension	215×95×45mm
Connection Standard	USB 3.0
Working Temperature	−10~40°C
Working Humidity (Non-condensing)	10%~90%
Export Format	.asc, .stl, .obj, .ply, .txt, .xyz and etc. Customized services available
Compatible Softwares	3D Systems(Geomagic Solutions), InnovMetric Software(PolyWorks), Dassault Systems(CATIAV5 and SolidWorks), PTC(Pro/ENGINEER), Autodesk(Inventor, Alias, 3ds Max, Maya, Softimage), Siemens(NX and Solid Edge) etc.
Patents	CN106228603B、CN208174805U、CN111486801B、CN212539085U、CN106767895B、CN106204544B、CN304321958S、CN108038878B、CN211046994U、CN306620676U、CN214224013U、CN214924384U、CN215572695U

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