#### **Technical Parameter**

Interpretation   Infrared MCSEL structured light     Visibility   Infrared MCSEL structured light     Light source   Safety   Infrared Inerar arstructured light     Technology   Infrared Inerar arstructured light     Colors canning   Infrared McSEL structured light     Alighont mardess   Infrared McSel structured light     Human body scanning   Infrared McSel structured light     Stanning feature   Infrared McSel structured light     Medum/arge-sized objects   Infrared McSel structured light     Marge Structured   Infrared McSel structured light     Marge Structured   Infrared McSel structured light     Marge Structured Structured light   Infrared McSel structured light	Туре		iReal 2E
Light sourceSafetyCLASS I (eye-safe)TechnologyInfrared linear-array structured lightColor scanningSupportAlignment modes without markers?Texture/feature/mixed alignmentsHuman body scanningInvisible light/hair/dark environment scanning; automatically remove the layers of body shakingScanning featuresOptimal scanning distance range 300 mm - 500 mmMedium/large-sized object?Effective working range 280 nm - 1000 nmMeasurement rateMaximum@Alignment accuracyOptimal scanning area up to 580 mm x 550 mmDetailPoint distanceAlignment accuracyUp to 0.200 nm - 3 nmAccuracyBasic accuracyOutput formatsOBJ, STL, PLY, ASC, SKData outputOutput formatsMeriface modeUSB 3.0Interface modeUSB 3.0MardwareDimensionsInterface mode140 mm x 94 nm x 258 mmWorking power supplyINPUT : 100 - 240VAC, 50/ 60Hz	Light source	Category	Infrared VCSEL structured light
Image: constraint of the second sec		Visibility	Invisible
Color scaningSupportAlignment modes without markers?Texture/feature/mixed alignmentsHuman body scanningInvisible light/hair/dark environment scanning; automatically remove the layers of body shakingScanning featuresMedium/large-sized object?Optimal scanning distance range 300 mm ~ 500 mmMedium/large-sized object?Effective working range 280 mm ~ 1000 mmMeasurement rateMaximum?Invisible light/hair/dark environment scanning; automatically remove the layers of body shakingMeasurement rateMaximum?Effective working range 280 mm ~ 500 mmMeasurement rateMaximum?Insteine au pt o 580 mm x 550 mmAccuracyBasic accuracyUp to 0.200 mm ~ 3 mmAccuracyBasic accuracyUp to 0.100 mmAlignment accuracy?Up to 0.300 mm/mData output3D printingSupportJoat outputWorking temperatureO°C ~ 40°CHardwareDimensions140 mm × 94 mm × 258 mmHardwareDimensions140 mm × 94 mm × 258 mmWorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz		Safety	CLASS I (eye-safe)①
Alignment modes without markers?   Texture/reture/mixed alignments     Fuman body scanning   Invisible light/hair/dark environment scanning; invisible light/hair/dark environment scanning;     Scanning features   Amark and the scanning     Medium/large-sized object   Effective working range 280 mm ~ 500 mm     Measurement rate   Maximum?   Effective working range 280 mm ~ 1000 mm     Measurement rate   Maximum?   Invisible light/hair/dark environment scanning;     Measurement rate   Maximum?   Invisible light/hair/dark environment scanning     Alignment accuracy   Basic accuracy   Invisible light/hair/dark environment scanning     Accuracy   Basic accuracy   Up to 0.100 mm     Accuracy   Basic accuracy   Up to 0.300 mm/m     Data output   Output formats   OBJ STL, PLY, ASC, SK     Data output   3D printing   Support     Interface mode   USB 3.0     Hardware   Dimensions   140 mm × 94 mm × 258 mm     Structure   3 sets of invisible light sources & camera groups & auxiliary lights		Technology	Infrared linear-array structured light
Human body scanningInvisible light/hair/dark environment scanning; automatically remove the layers of body shakingScanning featuresOptimal scanning distance range 300 mm ~ 500 mmMedium/large-sized objectEffective working range 280 mm ~ 1000 mmMeasurement rateMaximumMeasurement rateMaximumOptimal scanning distance range 300 mm ~ 500 mmMeasurement rateMaximumMeasurement rateMaximumOptimal scanning area up to 580 mm ~ 500 mmAccuracyBasic accuracyAlignment accuracyUp to 0.100 mmAlignment accuracyOptimut formatsOutput formatsSupportJohrshingSupportInterface modeUSB 3.0Interface mode140 mm × 94 mm × 258 mmInterface modeSates of invisible light sources & camera groups & auxiliary lightMering power supplyINPUT: 100-240VAC, 50/ 60Hz		Color scanning	Support
Scanning features Medium/large-sized object?Optimal scanning distance range 300 mm ~ 500 mmMedium/large-sized object?Effective working range 280 mm ~ 1000 mmMeasurement rateMaximum?Measurement rateMaximum?Potint distance0.200 mm ~ 3 mmDetailPoint distanceAccuracyBasic accuracyAlignment accuracy?Up to 0.100 mmAtignment accuracy?Up to 0.300 mm/mData output3D printingSupportSupportInterface modeUSB 3.0MedightStogStructure3 sets of invisible light sources & camera groups & auxiliary lightsMaxing power supplyINPUT : 100 - 240VAC, 50 / 60Hz	Scanning features	Alignment modes without markers②	Texture/feature/mixed alignments
Medium/large-sized object 3 Effective working range 280 nm ~ 1000 nm   Measurement rate Maximum 3 Effective working range 280 nm ~ 1000 nm   Measurement rate Maximum 3 Maximum single scanning area up to 580 nm x 550 nm   Detail Point distance 0.200 nm ~ 3 nm   Accuracy Basic accuracy Up to 0.100 nm   Accuracy Output formats OBJ, STL, PLY, ASC, SK   Data output 3D printing Support   Medium/large-mode USB 3.0   Medium/large-sized object 3 Structure   Medium/large-sized object 3 3 sets of invisible light sources & camera groups & auxiliary lights		Human body scanning	Invisible light/hair/dark environment scanning; automatically remove the layers of body shaking
Measurement rateMaximum ()Maximum single scanning area up to 580 mm x 550 mmMeasurement rateMaximum ()1,500,000 points/sDetailPoint distance0.200 mm ~ 3 mmAccuracyBasic accuracyUp to 0.100 mmAlignment accuracy()Up to 0.300 mm/mData outputOutput formatsOBJ, STL, PLY, ASC, SKData output3D printingSupportHardwareWorking temperature0°C ~ 40°CHardwareDimensions140 mm × 94 mm × 258 mmStructure3 sets of invisible light sources & camera groups & auxiliary lightsWorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz		Medium/large-sized object③	Optimal scanning distance range 300 mm ~ 500 mm
Measurement rateMaximum④Interface modeMeasurement rateMaximum④1,500,000 points/sDetailPoint distance0.200 mm ~ 3 mmAccuracyBasic accuracyUp to 0.100 mmAccuracyAlignment accuracy⑤Up to 0.300 mm/mData outputOutput formatsOBJ, STL, PLY, ASC, SKData output3D printingSupportWorking temperature0°C ~ 40°CInterface modeUSB 3.0Weight850 gDimensions140 mm × 94 mm × 258 mmMorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz			Effective working range 280 mm ~ 1000 mm
DetailPoint distance0.200 mm ~ 3 mmAccuracyBasic accuracyUp to 0.100 mmAlignment accuracy(5)Up to 0.300 mm/mData outputOutput formatsOBJ, STL, PLY, ASC, SKData output3D printingSupportWorking temperature0°C ~ 40°CInterface modeUSB 3.0Weight850 gDimensions140 mm × 94 mm × 258 mmStructure3 sets of invisible light sources & camera groups & auxiliary lightsWorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz			Maximum single scanning area up to 580 mm x 550 mm
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AccuracyAlignment accuracyUp to 0.300 mm/mData outputOutput formatsOBJ, STL, PLY, ASC, SKData output3D printingSupportWorking temperature0°C ~ 40°CInterface modeUSB 3.0Weight850 gDimensions140 mm × 94 mm × 258 mmStructure3 sets of invisible light sources & camera groups & auxiliary lightsWorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz	Detail	Point distance	0.200 mm ~ 3 mm
Alignment accuracy(s)Up to 0.300 mm/mData outputOutput formatsOBJ, STL, PLY, ASC, SK3D printingSupportWorking temperature0°C ~ 40°CInterface modeUSB 3.0Weight850 gDimensions140 mm × 94 mm × 258 mmStructure3 sets of invisible light sources & camera groups & auxiliary lightsMorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz	Accuracy	Basic accuracy	Up to 0.100 mm
Data output3D printingSupport3D printingWorking temperature0°C ~ 40°CInterface modeUSB 3.0Weight850 gDimensions140 mm × 94 mm × 258 mmStructure3 sets of invisible light sources & camera groups & auxiliary lightsWorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz		Alignment accuracy <sup>(5)</sup>	Up to 0.300 mm/m
3D printingSupportWorking temperature0°C ~ 40°CInterface modeUSB 3.0Weight850 gDimensions140 mm × 94 mm × 258 mmStructure3 sets of invisible light sources & camera groups & auxiliary lightsWorking power supplyINPUT : 100 - 240VAC, 50 / 60Hz	Data output	Output formats	OBJ, STL, PLY, ASC, SK
Interface mode USB 3.0   Weight 850 g   Hardware Dimensions   Structure 3 sets of invisible light sources & camera groups & auxiliary lights   Working power supply INPUT : 100 - 240VAC, 50 / 60Hz		3D printing	Support
Hardware Weight 850 g   Dimensions 140 mm × 94 mm × 258 mm   Structure 3 sets of invisible light sources & camera groups & auxiliary lights   Working power supply INPUT : 100 - 240VAC, 50 / 60Hz	Hardware	Working temperature	0°C ~ 40°C
Hardware Dimensions 140 mm × 94 mm × 258 mm   Structure 3 sets of invisible light sources & camera groups & auxiliary lights   Working power supply INPUT : 100 - 240VAC, 50 / 60Hz		Interface mode	USB 3.0
Dimensions 140 mm × 94 mm × 258 mm   Structure 3 sets of invisible light sources & camera groups & auxiliary lights   Working power supply INPUT : 100 - 240VAC, 50 / 60Hz		Weight	850 g
INPUT : 100 - 240VAC, 50 / 60Hz Working power supply		Dimensions	140 mm × 94 mm × 258 mm
Working power supply		Structure	3 sets of invisible light sources & camera groups & auxiliary lights
		Working power supply	INPUT : 100 - 240VAC, 50 / 60Hz
			OUTPUT : 24 = 3.75A, 90W MAX

## **SCANTECH**<sup>™</sup>



#### Descriptio

 $\odot$  Class1 LASER is a kind of low-energy light source, which has no biological hazards and will not cause damage to the human body or skin.

② When the item has continuous, non-repetitive, rich and varied geometric features/texture features, it can be directly scanned without sticking markers.

③ Maximum size of a single scan: recommended not to exceed 4 m. If the item size or data is too large, it can be registered after part scanning.

(a) Scan speed is up to 1,000,000 points/second under standard mode while it can reach 1,500,000 points/second when the memory size of graphics card equals or exceeds 6G.

⑤ It supports markers alignment. Alignment deviation value (alignment accuracy value) refers to the deviation value obtained by measuring the centers of the two standard spheres under marker alignment mode.

If you have strict requirements on accuracy, please choose industrial laser 3D scanners from SCANTECH 3D.

#### SCANTECH (HANGZHOU) CO., LTD

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## ISETTS

iReal 2E maximizes the performance in depth of field, scanning area, algorithm, texture reproduction and detail capturing, specially designed for medium to large-sized objects and human body 3D scanning.

iReal 2E adopts the Infrared VCSEL structured light technology to bring you the safest and most comfortable 3D scanning experience. Without attaching markers, a quick texture capturing and geometry acquisition can be achieved. Mixed alignment modes meet various scanning situations.



Professional Entry-Level Handheld Color & Large Scanning Area & Human Body 3D Scanner

### **3D Digital Solution**

#### **Body scan**

Customization and re-creation of artistic portraits (bronze portraits, 3D printed portraits, sculptural portrait scene reproduction, etc.)

Film, video, game, VR, AR and other CG character modeling (can be combined with motion capture system)

Medical rehabilitation (spine orthopedics, neck brace, prosthesis, arm immobilizer, orthopedic helmet, etc.)

Human body parts customization (clothing customization, film and television armor customization, etc.)

#### Art design

Medium and large sculptures (stone sculptures, urban sculptures, foam sculptures, clay sculptures, etc.)

Cultural relics (statues, parts of relics, parts of ancient buildings)

College art training, Clothing design, creative design, and derivative product development, etc.

#### **Product Features**

#### Super large field of view

The largest scanning area is 580 X 550mm, and the large wide-angle field of view enables it to scan medium and large objects quickly and accurately.

#### Greater depth of field

720mm scanning depth of field and better operation smoothness help you get started easily.

#### **Smoother splicing ability**

Using a new generation of 3D sensors and algorithm optimization, the data collection speed is as high as 1,500,000 points per second.

The characteristics of singleframe acquisition are more abundant, the splicing is smoother, and the scanning efficiency is higher.

#### "Invisible" scanning

Infrared VCSEL structured light is safe and invisible to human eyes, and the scanning process is more comfortable and safer.

#### Super black and hair scanning ability

Using the combined array structured light technology, it has stronger material adaptability, not only can scan more black material items, but also creatively solve the problem that other light sources are difficult to obtain when scanning.

#### **Digital acquisition analysis**

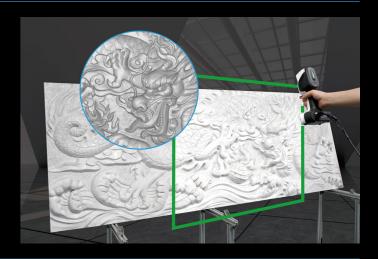
Plant growth morphology analysis (trunks and potted plants)

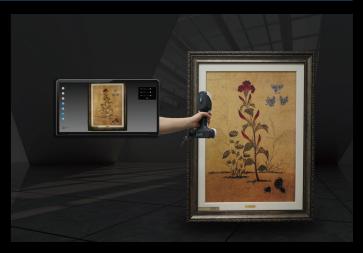
Forensic identification (measurement of human trauma area, footprint identification)

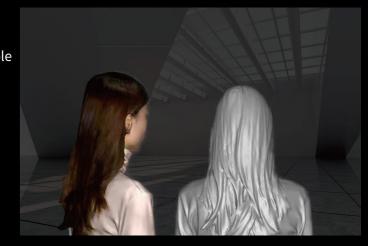
Medical diagnosis (spine correction screening)

3D comparative analysis of local body shape changes

Monitoring and analysis of cultural relic morphology







#### More application exploration

Car mat, luggage rack customization Furniture three-dimensional display auxiliary modeling (such as sofa) Data acquisition for 3D printing, etc.