## **Technical Parameter**

		iReal M3	iReal 2E
Light Sources	Light Sources	Infrared Parallel Laser Lines Infrared VCSEL Structured Light	Infrared VCSEL Structured Light
	Technology	7 Infrared Parallel Laser Lines Infrared Linear-array Structured Light(Speckle)	Infrared Linear-array Structured Light (Speckle)
	Visibility	Invisible	
Scanning Characteristics	Ability to Capture Texture	Support	
	Rapid Scan Mode (Speckle Mode)	Feature/Mixed/Texture Alignments	
	High-accuracy Scan Mode (on Object)	Markers Alignment	
	Human Body Scanning (Speckle Mode)	Invisible Light Scanning/Hair Scanning/Adapt to Dark Working Environments/ Automatically Remove the Displacement Caused by Human Movements	
	Scanning Range	Optimal Scanning Distance: 400 mm	
		Effective Scanning Distance Range: 280-1000 mm	
	Max. Field of View	Under Laser Mode: 400 mm×240 mm Under Speckle Mode: 580 mm×550 mm	Under Speckle Mode: 580 mm×550 mm
	Recommended Object Size	0.05-4 m	0.3-4 m
	Outdoor Scanning	Support	
Scanning Speed	Max. Scanning Speed	Up to 60 FPS For Laser Mode Up to 15 FPS for Speckle Mode	Up to 15 FPS for Speckle Mode
Fineness	Point Distance	0.1-3 mm	0.2-3 mm
Accuracy*	Basic Accuracy	Up to 0.1 mm	
	Volumetric Accuracy	Up to 0.25 mm/m	Up to 0.30 mm/m
Data Output	Output Formats	*.obj, *.stl, *.ply, *.asc, *.mk2, *.txt, *.epj, *.apj, *.spj, *.sk	
	The Ability for 3D Printing	Support	
Hardware	Working Temperature Range	-10~40°C	
	Interface	USB 3.0	
	Scanner Dimensions	140×94×258 mm	
	Scanner Weight	856 g	850 g
	Power Source	INPUT: 100-240VAC,50/60Hz	
		OUTPUT: 24=3.75A,90W MAX	
Compliance	Certifications	CE-EMC, CE-LVD, FCC, RoHS, WEEE, EN 62471	
		EN 60825, KC	

\*Accuracy: The deviation between the sphere diameter and the standard value is obtained by scanning a 100-mm calibration reference sphere in the marker alignment mode. \*Our company reserves the right to explain and modify the described parameters and pictures in the brochure

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#### IREAL 30 8

# iReal 3D Color 3D Scanners

The iReal 3D series, featuring models such as iReal M3 and iReal 2E, represents SCANTECH (HANGZHOU) CO., LTD.'s latest offering in the realm of professional 3D scanners. Designed to excel in performance, these scanners utilize infrared laser and/or structured-light modes, facilitating smooth 3D data acquisition across diverse applications. Whether scanning objects or individuals, indoors or outdoors, iReal 3D ensures versatility. iReal 3D provides 3D engineers, designers, and scientific researchers with professional and cost-effective tools for 3D digitization. It meets the specific requirements of industrial design, art design, medical design, human body digitization, and more.

Infrared Parallel Laser for Scanning Objects of Different Sizes and Materials (iReal M3)

- ✓ Different sizes (≥0.05 m)
- ✓ Different materials (Including dark and reflective surfaces)



#### Infrared Speckle for Human Body Scanning and Medium-large Sized Objects (iReal M3 & iReal 2E)

- Human body parts, busts or full-body figures (Hair scanning)
- $\checkmark$  Large and medium-scale objects ( $\geq 0.3$ m), ideal for sculptures



### **Infrared Parallel Laser for CAD/3D** Printing

#### **High-quality Data Capturing**

iReal M3 features a basic accuracy of up to 0.1 mm, and a volumetric accuracy of up to 0.25 mm/m. It can meet needs of capturing 3D data in various scenes.

### **Extremely High Resolution**

With a resolution of up to 0.1 mm, iReal M3 can reconstruct high-resolution geometric structures and capture fine details of edges, easily handling scanning tasks for objects over 5cm.

#### **Better Material Adaptability**

It is capable of 3D scanning industrial parts, automotive exteriors and interiors with black and reflective surfaces. No spray is needed for 3D scanning.

### **High Efficiency**

iReal M3's scanning rate is as high as 60 fps, which greatly improves scanning efficiency so that engineers can get high-quality 3D data quickly.

# **Infrared VCSEL Structured-Light for Human Body Scanning, Art and Design**

### **Algorithmic Optimization on Human Body Scanning**

- Invisible light scanning
- ✓ Hair scanning
- ✓ Automatically remove displacements caused by small movement of the scanned person
- Scanning in dark environments

#### **Hybrid Alignment Modes**

When objects have inadequate geometric or textural features, we can use hybrid alignment mode (marker and feature alignments). Just stick several markers on featureless parts and you can align scans smoothly.

#### Smoother, Easy to Use

Large Scanning Area: Large field of view (FOV), up to 580 mm x 550 mm, allows for fast and accurate scanning of medium to large-sized items.

Deep Depth of Field: 720-mm scanning depth of field and better operation smoothness help you get started easily.



#### Without Markers

When objects are full of continuous, non-repetitive, and richly varied geometric/textural features, you can scan them directly with geometry and feature alignment mode. The marker-free 3D scanning and one-button start improve on-site working efficiency.

