

## EinScan 2023 Partner Product Launch Briefing

3D DIGITIZING INTELLIGENT DESIGN | ADDITIVE MANUFACTURING



High Texture Resolution Handheld 3D Scanner

EinScan HS

SHINING 3D

Hybrid Light Source LED & Infrared VCSEL Light Source

# EinScan H2



Hybrid LED & Infrared VCSEL Light Source Handheld 3D Scanner



The EinScan H2 improves on its predecessor with a **5MP** resolution texture camera, enhanced accuracy, and **3 VCSEL projectors** for more photorealistic textures and better data quality.



camera

#### HIGHLIGHTS —

## **High Fidelity Color Reproduction**

### **5MP** texture camera

Captures rich, bright colors and clean textures for photorealistic 3D models.







#### HIGHLIGHTS —

### Superior Environmental Adaptability

### **3** Infrared VCSEL Projectors

Provide superior material and lighting adaptability, effortlessly handling various surface types and scanning environments.



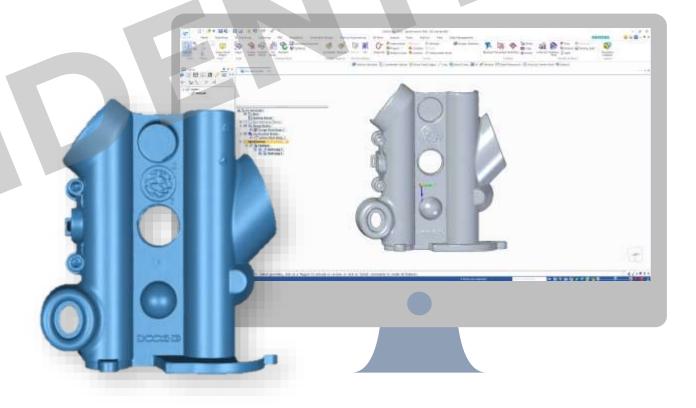
#### HIGHLIGHTS ----

## **High Accuracy & Versatile**

#### Infrared VCSEL and White Light Hybrid Light Source

Dual light source improves scanning efficiency. LED light provides fast scanning with accurate and high quality data for professionals.

- Various scene from small to large
- Scanning speed: 1,200,000points/s
- Accuracy: Up to 0.05mm
- Point distance: Up to 0.2mm



#### HIGHLIGHTS —

## **High Accuracy & Versatile**

#### Infrared VCSEL and White Light Hybrid Light Source

Infrared VCSEL enables non-rigid algorithm for human scan and various scanning environment.

- ✓ Dark color objects
- ✓ Human body scan
- ✓ Outdoor scan
- Accuracy 0.1mm
- Point distance: Up to 0.2mm





#### HIGHLIGHTS —

## **Adjustable Working Distance & Large FOV**

Enables **working distance adjustment**, **from 200mm to 1500mm**, to adapt to narrow or wide scenes more freely, and objects of various sizes much easier.

**FOV (Field of View)** up to **780mm x 900mm**. Offers flexibility in scanning volume to capture large-sized objects quickly.





#### HIGHLIGHTS —

## Advanced Algorithm for Body Scan

 $\sqrt{\rm IR}$  Mode Non-rigid Algorithm

**√** Hair Enhancement

**√** Flashless Scan

Captures 3D body data quickly and seamlessly, with auto-compensation of slight movements to eliminate misalignment risks. Hair mode designed to successfully capture light and dark hair. → Original Face

> ← Scanned Data

# EinScan H2 vs H

食品名称	旺仔牛奶	5(调制乳)	2
净含量	250mL 9个月		
記料表	复原乳(8	000 (水、全	
品添加剂	(蘇糖脂肪	<b>截</b> 翻、单	
双甘油脂	坊酸酯)、1	品用香料	
生产日期	见盒顶		
<b>虹仔崇忤</b> 产品标准	B CB 251	使阳光直射。 91	
•本品若出	现少量乳 属自然:	BRR H	
值日沉淀 匀后正常	饮用。		
•用旧词道	当价注。 9	包装属气	
•请勿带包	教放入直と	人或國家外	
- Million	营养成分表	2	
項目書	AUSED DE	WE'LL B	
開發	813kJ	10%	
	6.09	10%	
	6.59	11%	
國水化合	25.09	83	
1	12509	0%	
B	2234	204	

EinScan H2   white light mode   0.5mm					
Scanning time	2min 19s				
Point cloud generation time	49s				
Mesh time	2min 38s				
EinScan H   white light mode	0.5mm				
Scanning time	2min				
Point cloud generation time	25s				
Mesh time	1 min 02s				



SHINING 3D EinScan H2

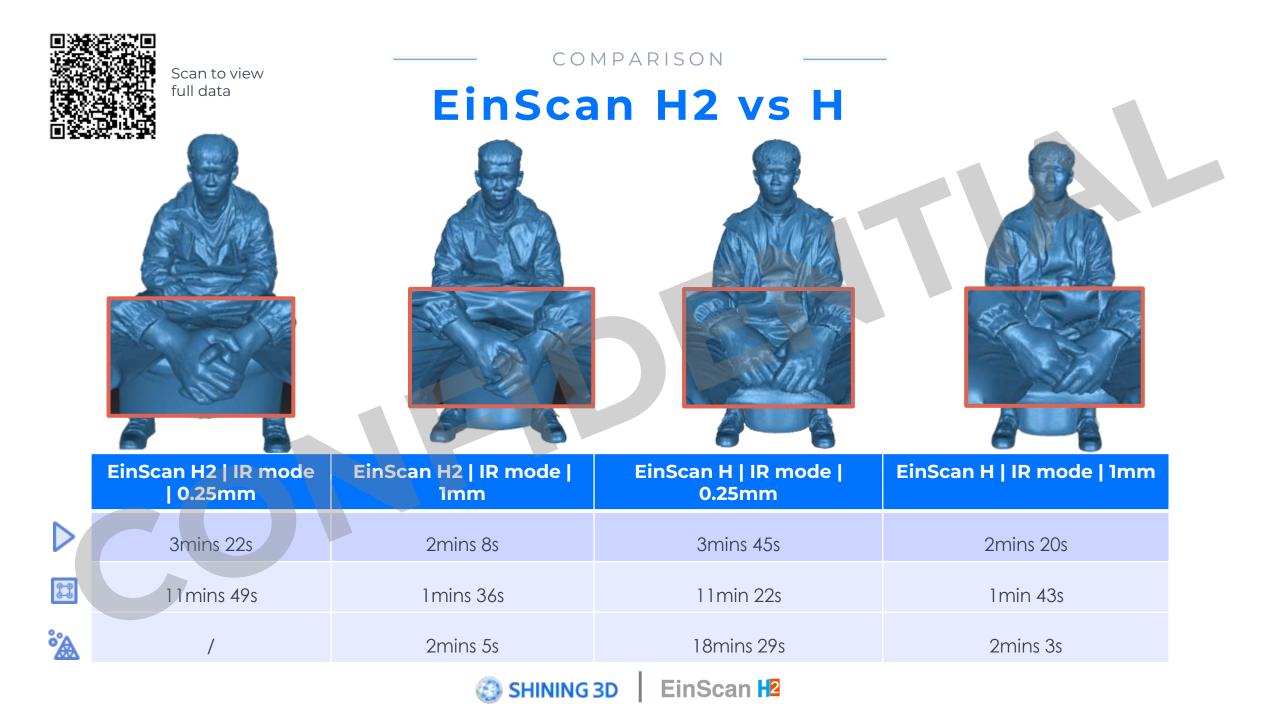
# EinScan H2 vs H



EinScan H2   white light mode   0.5mm					
Scanning time	3min 17s				
Point cloud generation time	58s				
Mesh time	3min 14s				
EinScan H   white light mode	0.5mm				
EinScan H   white light mode Scanning time	<b>0.5mm</b> 3min 38s				

备兰







Scan to view full data

COMPARISON

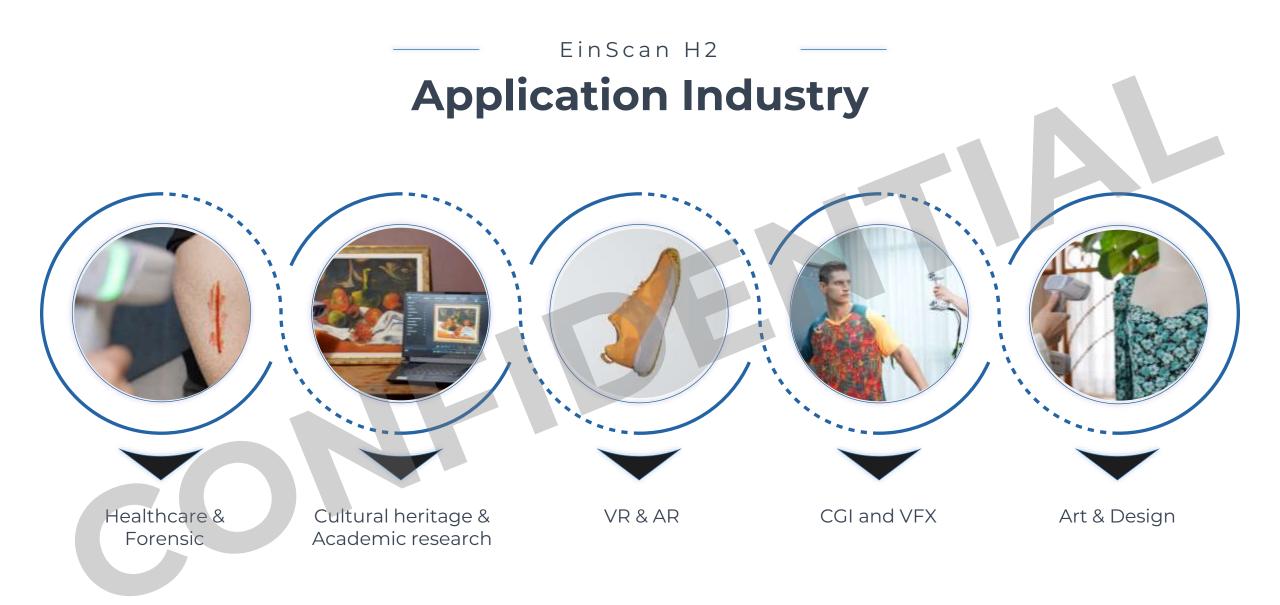
## EinScan H2 vs H

	EinScan H2   white light mode   0.2mm	EinScan H2   IR mode   0.2mm	EinScan H   white light mode   0.25mm	EinScan H   IR mode   0.25mm
	2mins 05s	3min 05s	2mins 2s	1min 19s
₽ <u></u> ₽	40s	1 min 39s	30s	1min 3s
<b>`</b> ``	38s	31s	22s	22s
		🛞 SHINING 3D	EinScan H2	

		——————————————————————————————————————	PARISON		
		EinScar	n H2 vs H		
	0 V8 9	OV3 O	9 V8 9		
	EinScan H2   white light mode   0.2mm	EinScan H2   IR mode   0.2mm	EinScan H   white light mode   0.25mm	EinScan H   IR mode   0.25mm	
	4mins 10s	5min	4min 58s	4min 40s	
e	1 min 13s	3min 45s	1 min 24s	3min 32s	
<b>`</b> ``	43s	50s	44s	44s	
SHINING 3D EinScan H2					

## **Specification**

Scan Mode	White Light Mode	IR Mode	
Light Source	White LED Light, Visible	Infrared VCSEL Light, Invisible	
Scan Accuracy	Up to 0.05mm	Up to 0.1mm	
Volumetric Accuracy	0.05mm+0.1mm/m	0.1mm+0.3mm/m	
Point Distance		m~3mm	
Best Working Distance	47	0mm	
Effective working Distance Range	200mm~700mm	200mm~1500mm	
Maximum FOV	420mm*440mm	780mm*900mm	
Scan Speed	1,200,000points/s	1,060,000points/s	
Texture Resolution	5	MP	
Align Modes	Markers Alignment, Feature Alignment, Hybrid Alignment, Texture Alignment	Feature Alignment, Hybrid Alignment, Texture Alignment, Global Markers	
Safety	LED light (eye-safe)	CLASS I (eye-safe)	
Built-in Color Camera	Yes		
Texture Scan		Yes	
Software Included	EXScanH; Solid Edg	e SHINING 3D Edition	
Output Formats	OBJ, STL, ASC	C, PLY, P3, 3MF	
Size	108 mm x 110	mm x 237 mm	
Scanner Body Weight		31.1 g	
Operating Temperature Range	0°C	~ 40°C	
Operating Humidity Range		~ 90% RH	
Certifications	CE, FCC, RC	HS, WEEE, KC	
Interface	USB 3.0		
Input Voltage	DC: 12 V, 5.0 A		
Recommended Configuration	OS: Win10/11, 64-bit; Graphics card: NVIDIA GTX/RTX, RTX2060 or better; Video memory: ≥6GB; Processor: Intel 17-11700 or better; Memory: ≥64GB		
Required Configuration	OS: Win10, 64-bit; Graphics card: NVIDIA GTX1060; Video memory: ≥4GB; Processor: Intel I7- 8700; Memory: ≥16GB		



### CASE — Prosthetic Socket



#### SHINING 3D EinScan H2

#### **Background:**

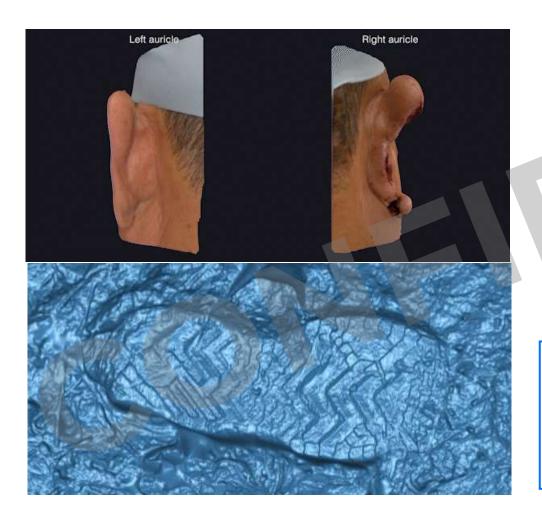
- EinScan & Luke Rehabilitation
- **Traditional production method:** If the prosthetic socket does not fit the residual limb properly, it can cause pain to the patient, secondary trauma to the skin or damage to the patient's bones.
- **3D digitizing method**: High-precision 3D model of the patient's residual limb can be imported into the modeling software to make the socket.







# Forensic Science



#### **Background:**

- Crime scene documentation and preservation
- Management of physical evidence
- Injury analysis

...

Comparing with the traditional free proof, this digital method preserved the original injury information and gives a more exact and authoritative result.







### CASE – CGI & VFX



#### **Background:**

- High resolution textures are essential for creating realistic and immersive environment, characters and prop making.
- VFX artists can use the 3D model easily without a tedious post processing.



### CASE — **3D Digital Content**



#### **Background:**

- Education: create interactive educational materials
- Advertising and marketing: high-resolution 3D digital models for use in online stores
- Heritage conservation: Visualization of artifacts or museum collections







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# COMPARISON — Competition Comparison

Model	Peel 3	iReal 2E	EinScan H2-White Light	EinScan H2-IR
Mode of Alignment	Hybrid (Feature/Markers/Texture)	Feature, Texture, Hybrid	Feature, Markers, Texture, Hybrid	Feature, Texture, Hybrid, Global Markers
Scan Accuracy	Up to 0.1mm	Up to 0.1mm	Up to 0.05mm	Up to 0.1mm
Scan Speed	80s/m <sup>2</sup>	Up to 1500000 points/s	1,200,000points/s	1,060,000points/s
Point Distance	0.25mm	0.2mm~3mm	0.2mm-3mm	
Texture Resolution	250DPI (≈5MP)	1.3MP	5MP	
Light Source	IR VCSEL	IR VCSEL	White LED Light	IR VCSEL
Max FOV	340mm*475mm	580mm*550mm	420mm*440mm	780mm*900mm
Output Format	dae,fbx,ma,obj,ply,stl,txt,wrl, x3d,xdz,zpr,dxf,iges,step	obj, ply, stl, asc, sk	OBJ, STL, AS	C, PLY, P3, 3MF
Weight	950g	850g	7	31.1 g



## .Medium Object

Stone carving (126mm\*116mm\*348mm)

	<image/>		
EinScan H2   white light mode   0.2mm	EinScan H2   IR mode   0.2mm	Peel 3, 0.25mm	iReal 2E, 0.25mm
2min 03s	2min 09s	2min 06s	2min 05s
20s	32s	24s	44s
27s	33s	/	1min 17s



## .Medium-large Object

Engine (400mm\*200mm\*438mm)

		OV8 O	E V8 E	8 V 8
	EinScan H2   white light mode   0.2mm	EinScan H2   IR mode   0.2mm	Peel 3, 0.25mm	iReal 2E, 0.25mm
	4min 10s	5min	4min 41s	6min 10s
	1min 13s	3min 45s	2min 10s	6min 05s
*	43s	50s	/	8min 04s

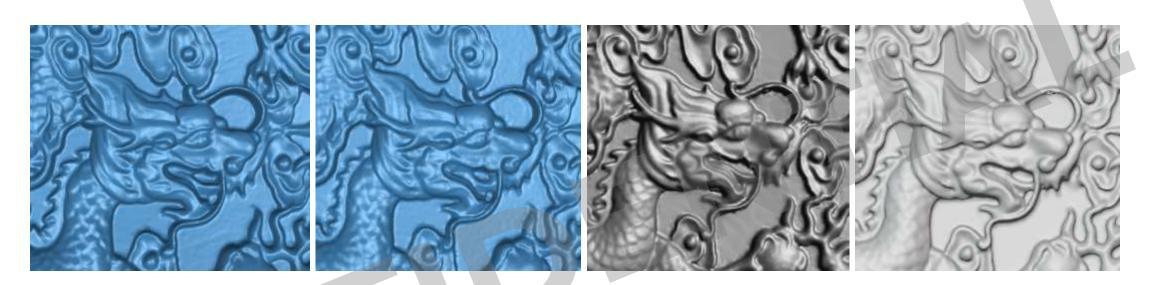
The scanning speed of **Peel 3** and **EinScan H2** is almost the same. While **iReal 2E** is much slower. ٠





## .Object Detail

Wood carving



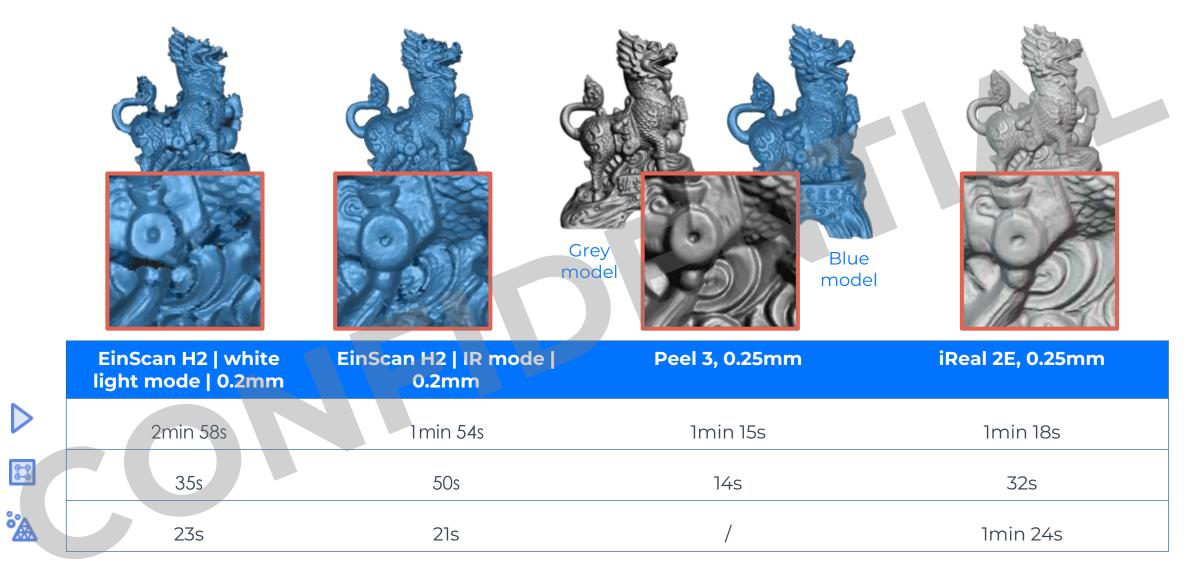
	EinScan H2   white light mode   0.25mm	EinScan H2   IR mode   0.25mm	Peel 3, 0.25mm	iReal 2E, 0.5mm
$\triangleright$	30s	35s	28s	38s
H	10s	12s	10s	9s
<b>*</b>	13s	12s	/	11s

Generally speaking, **EinScan H2** (white light mode) got the best data details, followed by **Peel 3**.





Kirin ornament



For such reddish-brown objects, infrared light can capture more data than white light. Comparing these scan results, the EinScan H2 got the most complete data and the clearest detail.



# **Texture** Quality

Packing box (240mm\*124mm\*62mm)

		Finance Endedeff Finance		
	EinScan H2   white light mode   0.2mm	EinScan H2   IR mode   0.2mm	Peel 3, 0.25mm	iReal 2E, 0.25mm
	1 min 12s	1 min 3s	35s	1min 29s
	1min 17s	1 min	21s	26s
*	3min 27s	3min	/	1min 21s

EinScan H2 gets the clearest texture details.



			<image/>
EinScan H2   IR mode   0.2mm	EinScan H2   IR mode   Imm	Peel 3, 0.25mm	iReal 2E, 1mm
3min 22s	2min 8s	6min 20s	4min 18s
11min 49s	1 min 36s	28min 30s	2min 10s
×	2min 5s	/	8min 44s

**EinScan H2** gots the texture which is closest to the real person. ٠

The data texture scanned by **Peel3** and **iReal2E** is darker than the real person. ٠

	EinScan H2   IR mode   0.2mm	EinScan H2   IR mode   Imm	Peel 3, 0.25mm	iReal 2E, 1mm
	3min 22s	2min 8s	6min 20s	4min 18s
	11min 49s	1 min 36s	28min 30s	2min 10s
*	1	2min 5s	/	8min 44s

- The data detail scanned **by Peel 3** is better, but has the most noise data. ٠
- **Peel 3** has longer scanning time and processing time. ٠



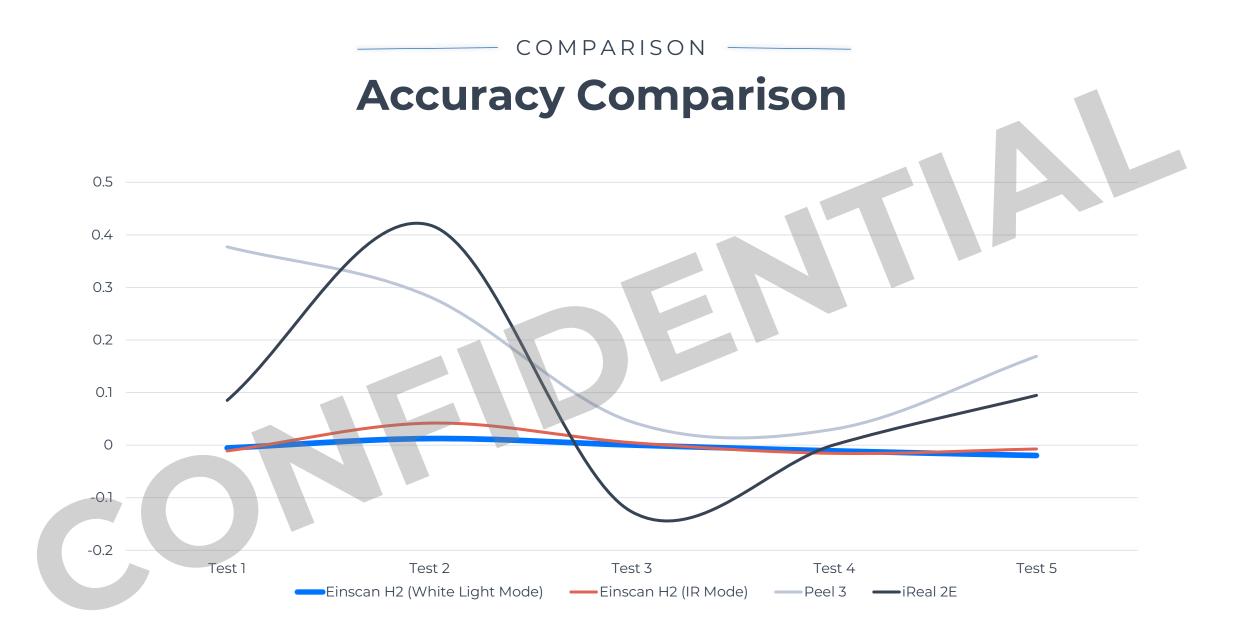


Car body (4638mm\*1991mm\*1345mm, shiny surface)

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The scanning speed of **Peel 3** is the fastest because it doesn't need to scan the global markers in advance.



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## EinScan H2 vs H

In conclusion, EinScan H2 has the best color texture quality, comparative advantage of good quality in geometry resolution. And our bigger FOV makes it be more adaptable to different applications.



### SOFTWARE -----EXScan H2

Mesh Editing

Texture ①

Smooth @

Simplification D

Mesh Optimization ①

Auto Hole Filling (1)

Manual Hole Filling ()

Cutting Plane Tool 9

Facial Flip ①

Mirror @









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#### SHINING 3D EinScan H2



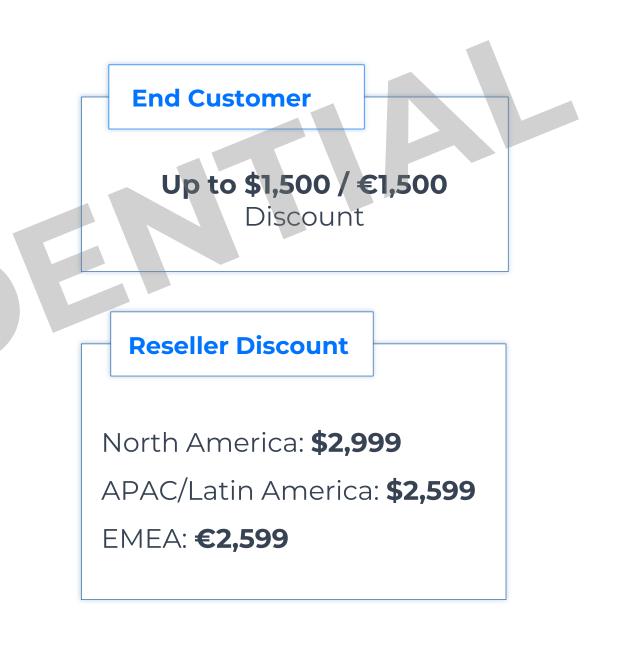
#### SHINING 3D EinScan H2

## Trade-in

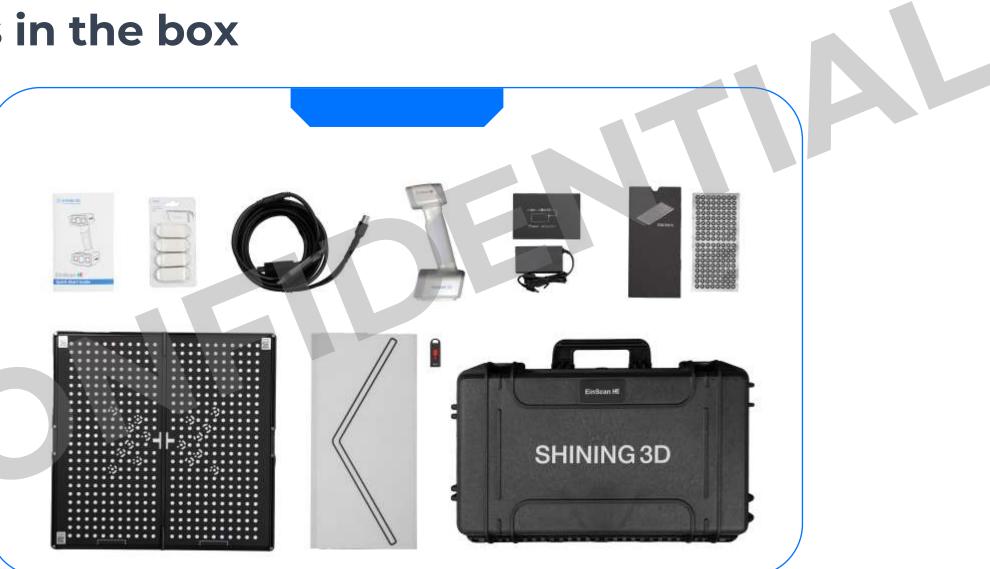
#### > Time: Within one month after official launch

Any scanner, not limited to the brand, price or use of the used scanner.

We offer a special discount price for trade-in orders.



### What's in the box



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# Official Launch Marketing plan



#### MARKETING -----

### Launch roadmap





### Pre-launch

- An EDM will be sent to your email address that includes a link to all the marketing material available so far
- Share two rounds of teasers on July 14 and July 21
- Prepare your own website content and update the EinScan H product page
- Please DON'T leak the specs and exterior design before the official launch date



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#### MARKETING ----

### **EinScan H2 Launch day**

#### **EinScan H2 Official Launch Time**

July 25<sup>th</sup> 9:00AM CST (Beijing) July 25<sup>th</sup> 3:00AM EST (Berlin) July 24<sup>th</sup> 21:00PM EDT (New York) July 24<sup>th</sup> 18:00PM PDT (San Francisco) Your marketing material should be posted **NO EARLIER** than this point of time. SHINING 3D

- Official launch announcement EDM to potential leads inquiries from SHINING 3D
- Release new website product page
- Post launch PR article on website
- Post scan data on SketchFab
- Social media posts

## After launch

#### #EinScanH2NewLevel

- General hashtag
- Please include this tag to increase overall exposure

#### **#EinScanH2Stories**

- Every alternate Friday
- User case studies
- Partner & user testimonials
- Contributions are welcomed



#### SHINING 3D

#### #EinScanH2Highlight

- Every Wednesday
- Product Competitiveness
- Pics and captions are available on seafile

#### #scandatatuesday

- Every Tuesday
- Scan data sharing
- Also available on SketchFab
- Feel free to download and shar the data

### After launch



#### **Application photos**

(9 scenarios)

#### Dedicated webinars based on customers' feedback & application fields

SHINING 3D

Keep eyes on customers' feedbacks share you ideas to marketing@shining3d.com

#### MARKETING ----

### **Texture Mapper Lite launch day**

#### Texture Mapper Lite Official Launch Time

September 5<sup>th</sup> 9:00AM CST (Beijing) September 5<sup>th</sup> 3:00AM EST (Berlin) September 4<sup>th</sup> 21:00PM EDT (New York) September 4<sup>th</sup> 18:00PM PDT (San Francisco) Your marketing material should be posted **NO EARLIER** than this point of time.

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## Thank You

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