



JANUS Pro Sunlike

P R O P O S A L





Intro

- 1** Hardware Features
- 2** Skin Analysis Items
- 3** Skin Analysis Features
- 4** PIE's Technical Skills
- 5** Special Feature
- 6** Patents and Certifications
- 7** Specification



JANUS Pro Sunlike



5th Generation Face Skin Analyzer **JANUS Pro Unlike**
Introducing the new **Flagship Model** of PIE Inc.



JANUS Pro Sunlike

That's how it works.



Analysis

Four shots
More than 12 Items



Counseling

Analysis Results
Image Observation



Management

Customized
management



Comparison

Change
before and after
management



Recommend

Custom Products



Satisfaction

Skin improvement
Mobile App Support

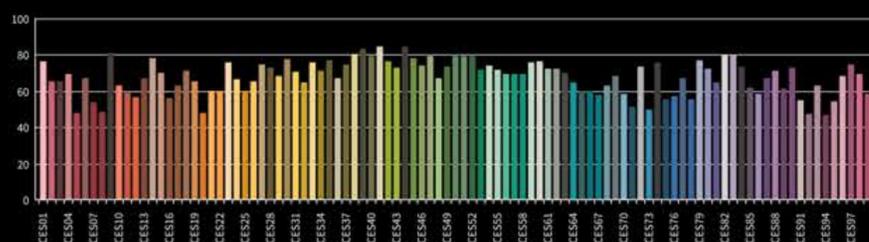


Hardware Features

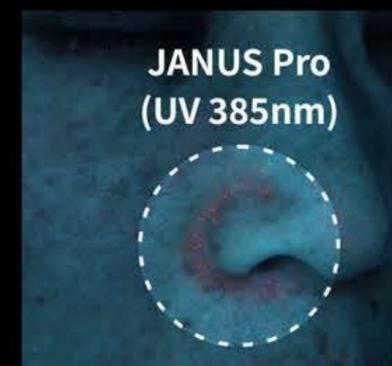
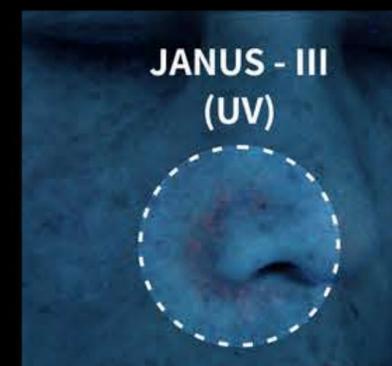
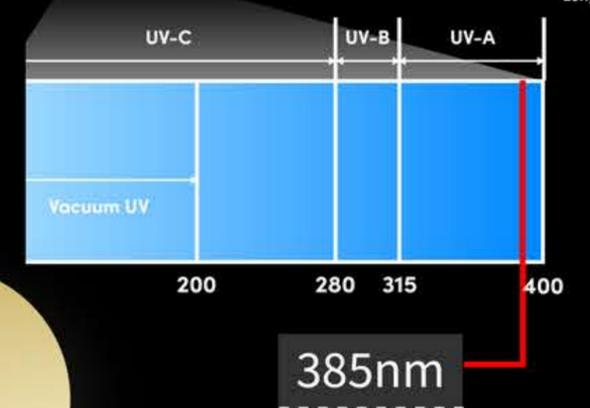
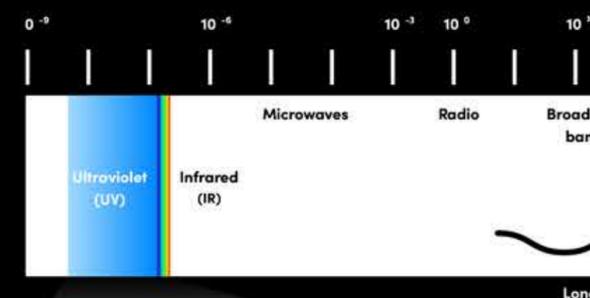
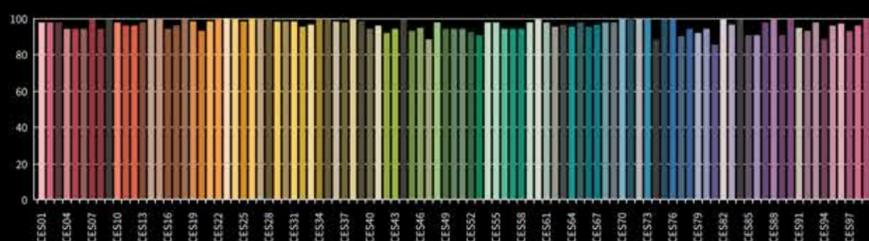
- Hybrid light source
- Three-dimensional light source design
- Four Light Sources
- Self-sterilization
- Foldable hood
- Tablet PC Mounting



General LED CRI 70/ Rf(TM-30) 75



SunLike LED CRI 95/ Rf(TM-30) 96

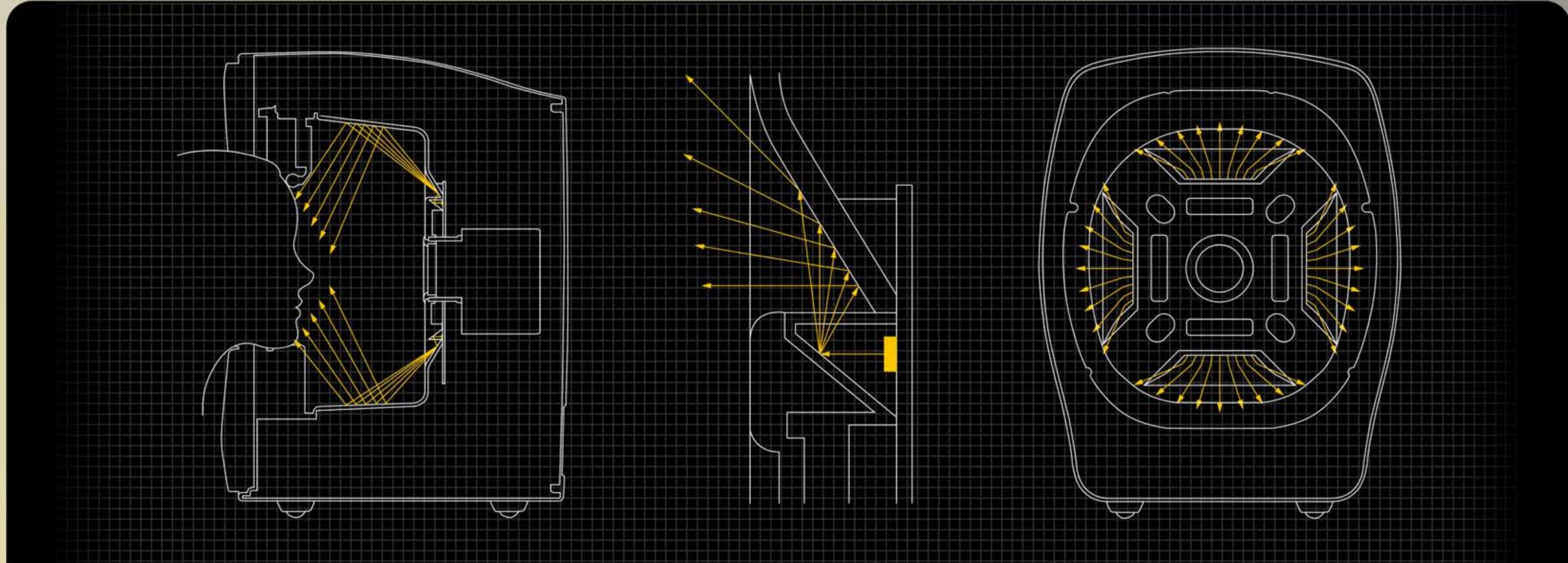


Sunlike LED Light Source

It can show rich colors that are different from normal LEDs and can be used semi-permanently.

385nm UV LED

It is safe with short wavelengths close to visible light and shows sebum, porphyrin, and pigmentation more clearly and accurately.

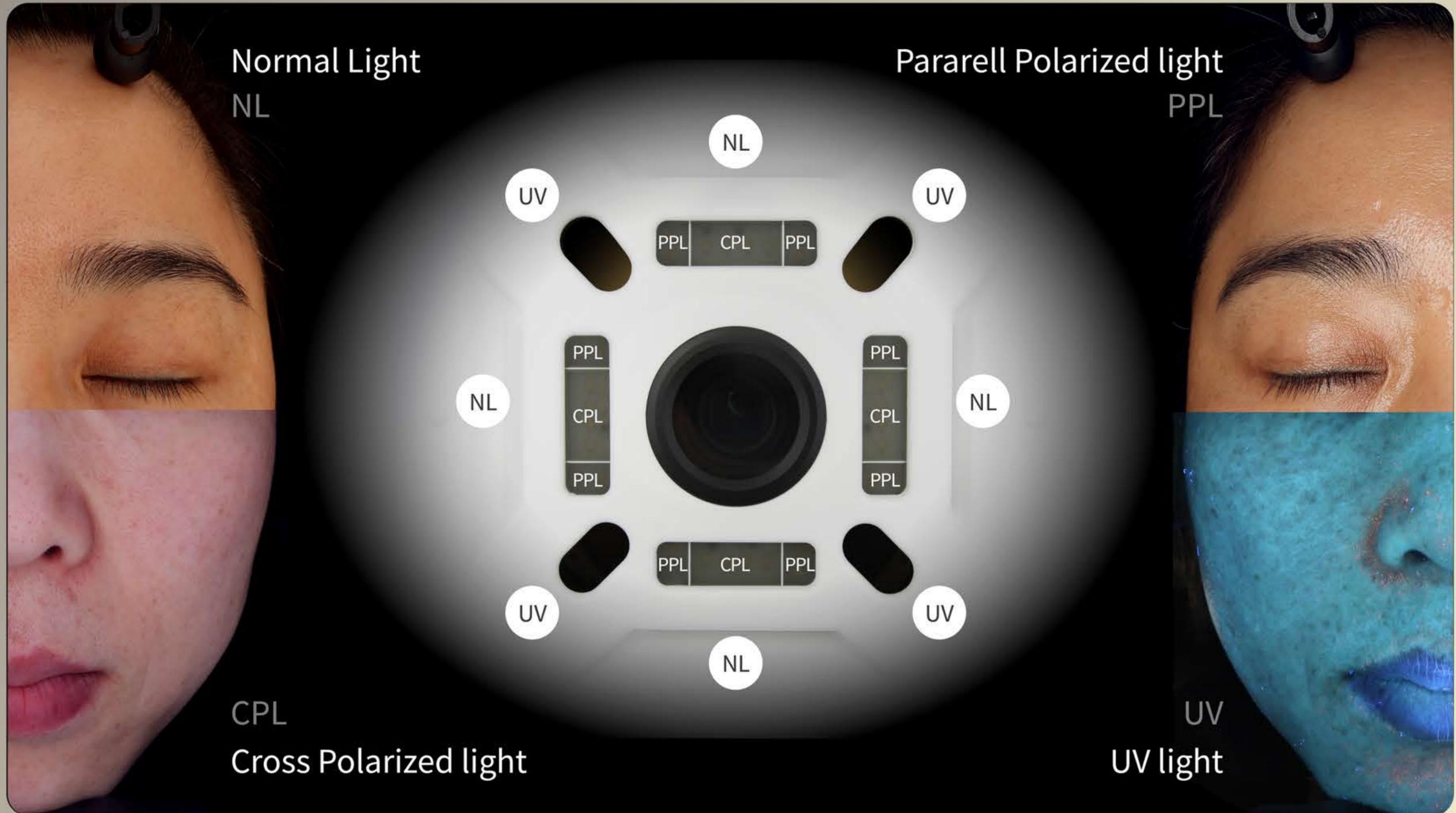


The fruit of efforts for optimal light distribution

We thought about creating a more evenly distributed light source when filming. Finally, the optimal light distribution was achieved with the new structural design.

Patent Registration No. 10-2429443

4 light sources





violeds

Violeds is a UV LED clean technology with 99.9% sterilization power by optimally designing the wavelength, angle, distance of light without using harmful chemicals.

Industry's first sterilization LED equipped

It is also responsible for the safety of customers using the facial skin analyzer.

Violeds technology eliminates harmful germs and viruses.

Permanent sterilization (UV-A) / Concentrated sterilization (UV-C)

operates in two modes.



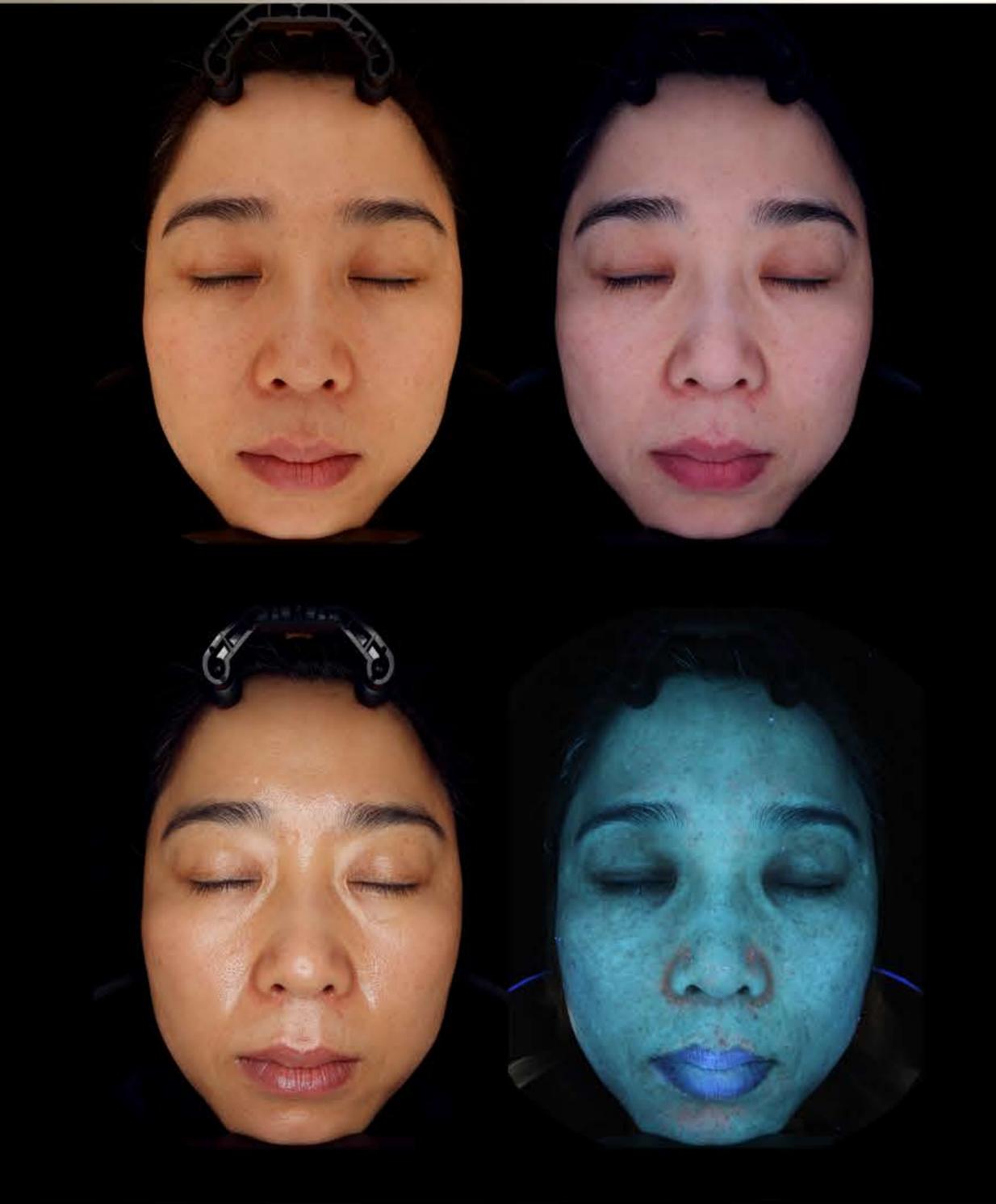
Storageable Foldable Hood

It is made of dustproof and waterproof materials after durability test.
It completely blocks the outer light when filming.
You can fold it lightly with one touch and store it after using



Utilize space efficiently with tablet holder

Tighten the rigid tablet holder to the top of the equipment.
You can use the equipment with just one tablet PC,
without a desktop PC or monitor.



Skin Analysis Items

- Overall result
- Skin aging
- Skin whitening
- Oil/Moisture

Overall result

Skin Aging

Scoring 8 Items

Oil/Water Balance

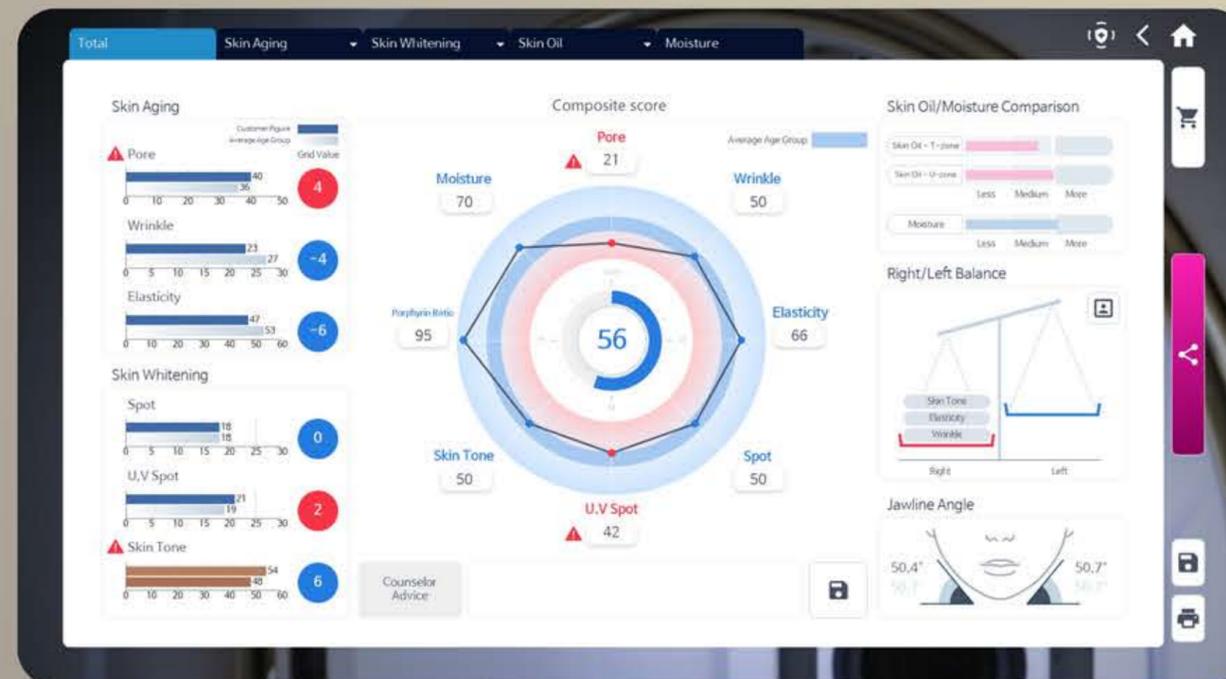
Symmetric Picture of Face Side to the Left

Skin Whitening

Compare to Age group

Left and Right Balance of the Skin

Jawline Angle



Skin aging

Pore

Number · Size · Shading

Nasolabial folds

Size · Shading

wrinkles

Number · Size · Shading

Elasticity

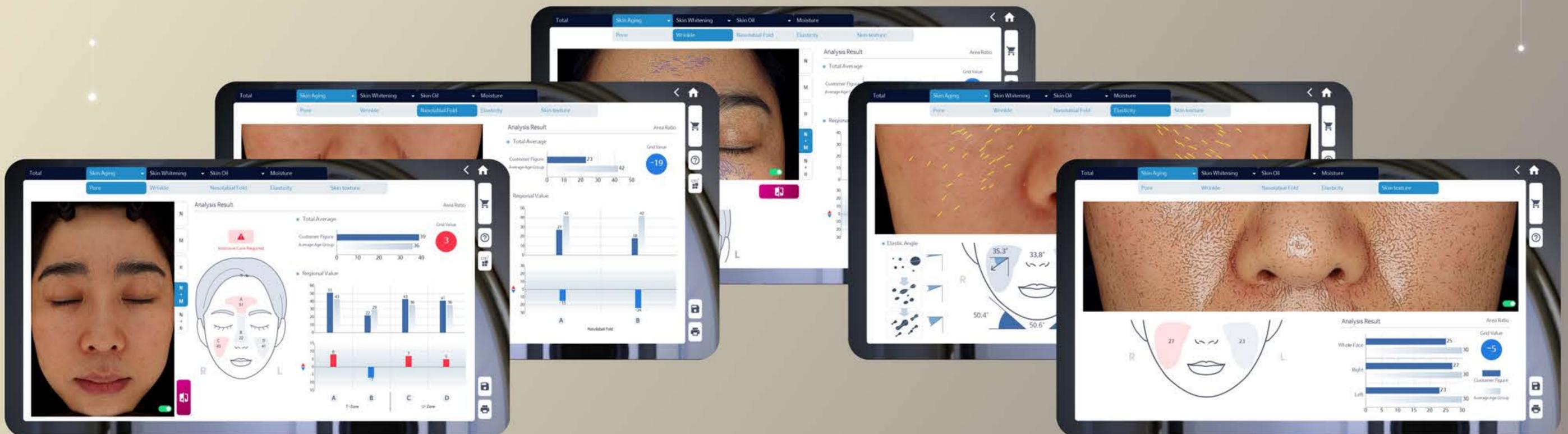
Number · Angle

Skin texture

Number · Angle

Analysis

Age comparison



Skin whitening

Pigmentation

Number · Size · Shading

UV pigmentation

Number · Size · Shading

Skin tone

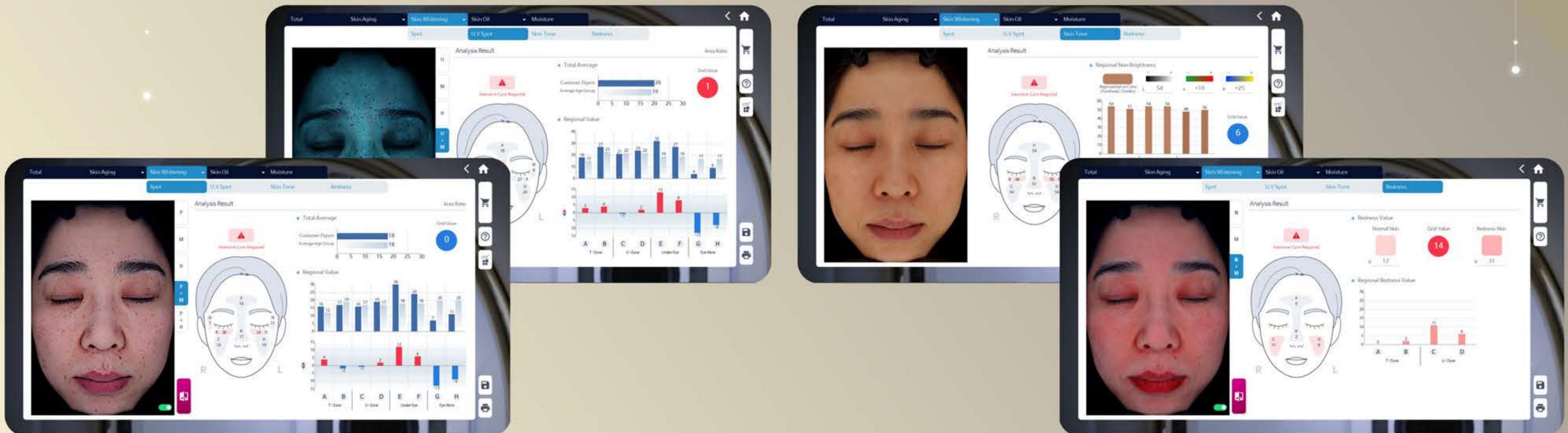
Uniformity of skin color

Redness

RED figure

Analysis

Age comparison



Oil/Moisture



Sebum

Number · Size

Porphyryn

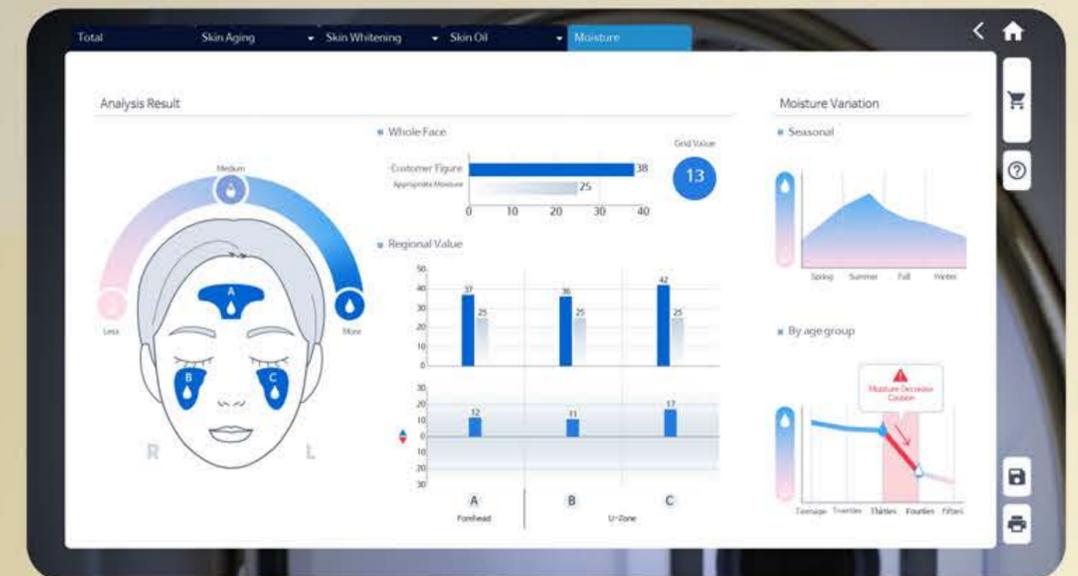
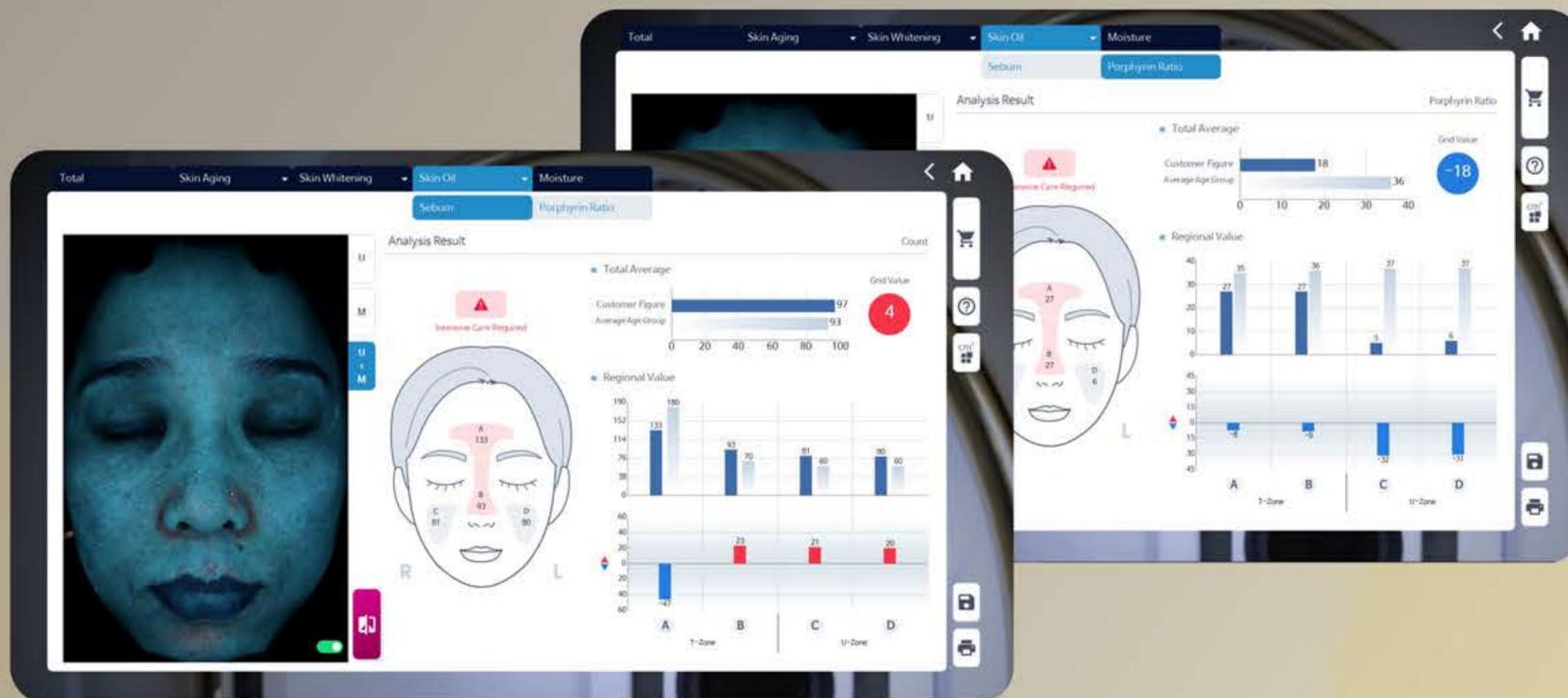
Number · Size

Moisture

Moisture Meter Value

Analysis

Age comparison





Skin Analysis Features

- Differentiated Analysis Items
- Effective viewer functionality
- Outstanding image
- Comparative analysis and product recommendations
- Image Viewer and Field Measurements

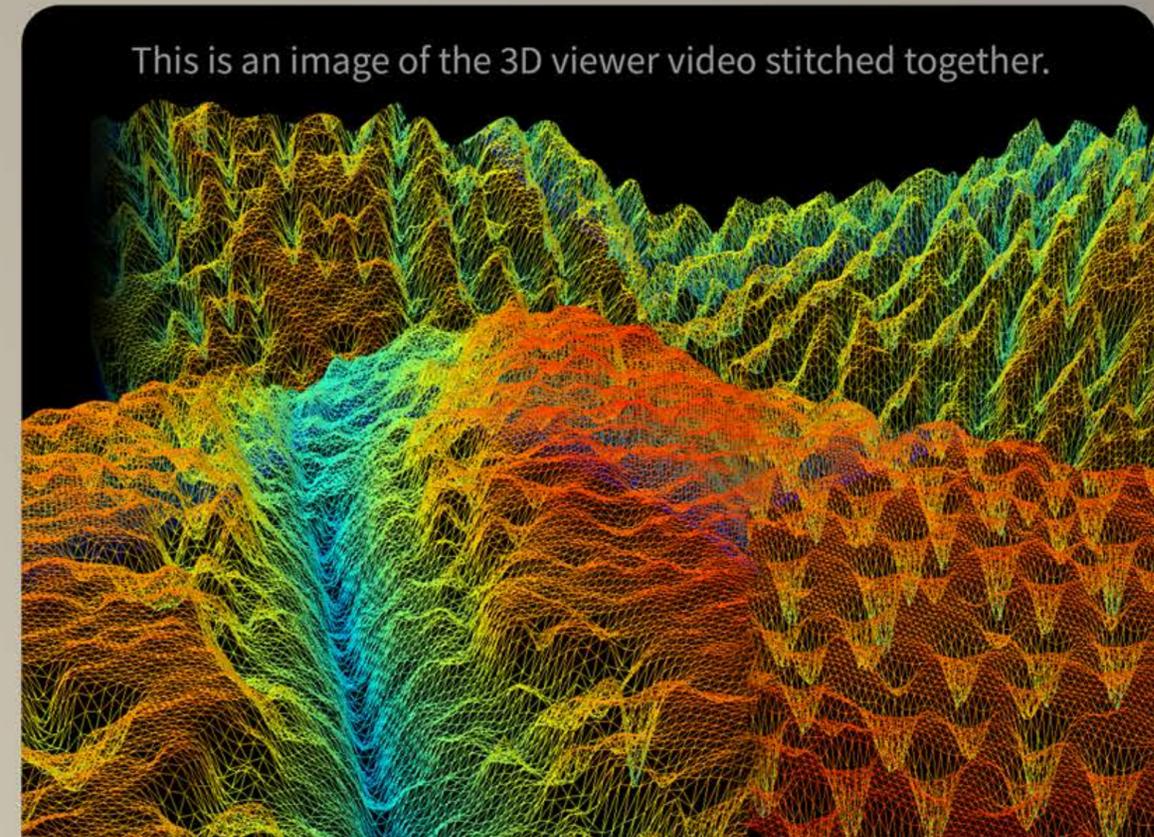
The industry's first standards for dermal analysis.





Curtain Function - Image switch

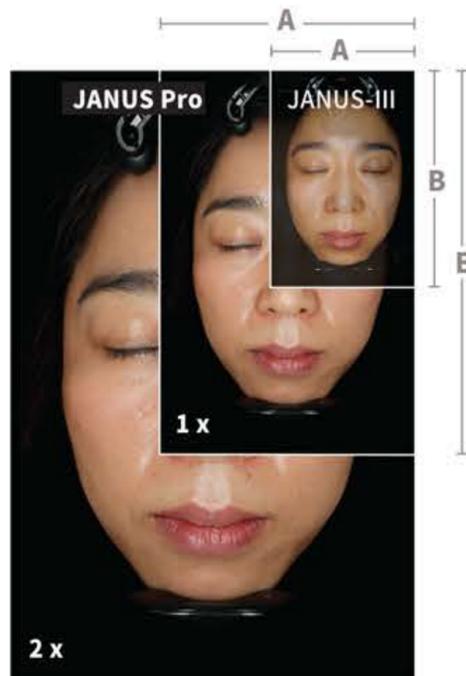
By transforming images into different ways, you can effectively show your customers skin problems.



3D Viewer - Skin Surface Observation

Express cross sections of the skin in 3D space and observe flexion. It is mainly easy to observe pores and wrinkles.

Outstanding image



150%
improvement in
original image size
over 4th generation
JANUS.

Provides a high-definition source image

Provides 24.1-megapixel high-definition original images taken with a DSLR camera.

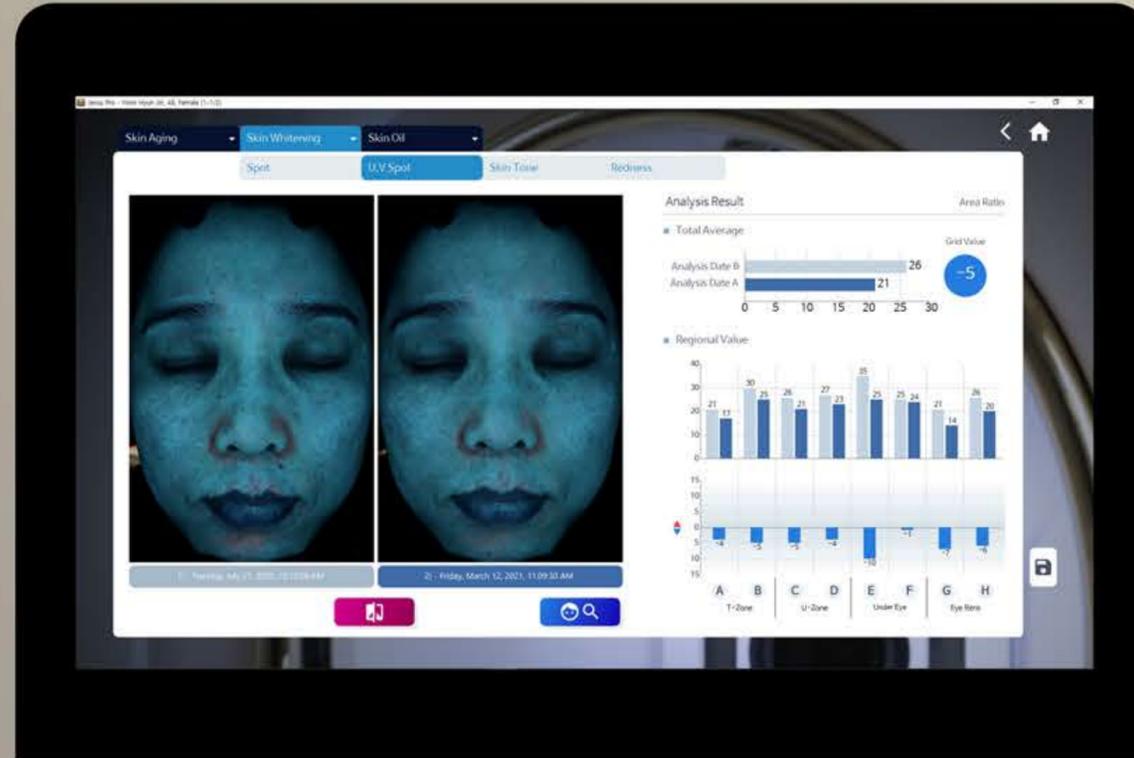
Up to 8000 x 12000px (200%)
can be magnified to observe.



Sharper filter effect

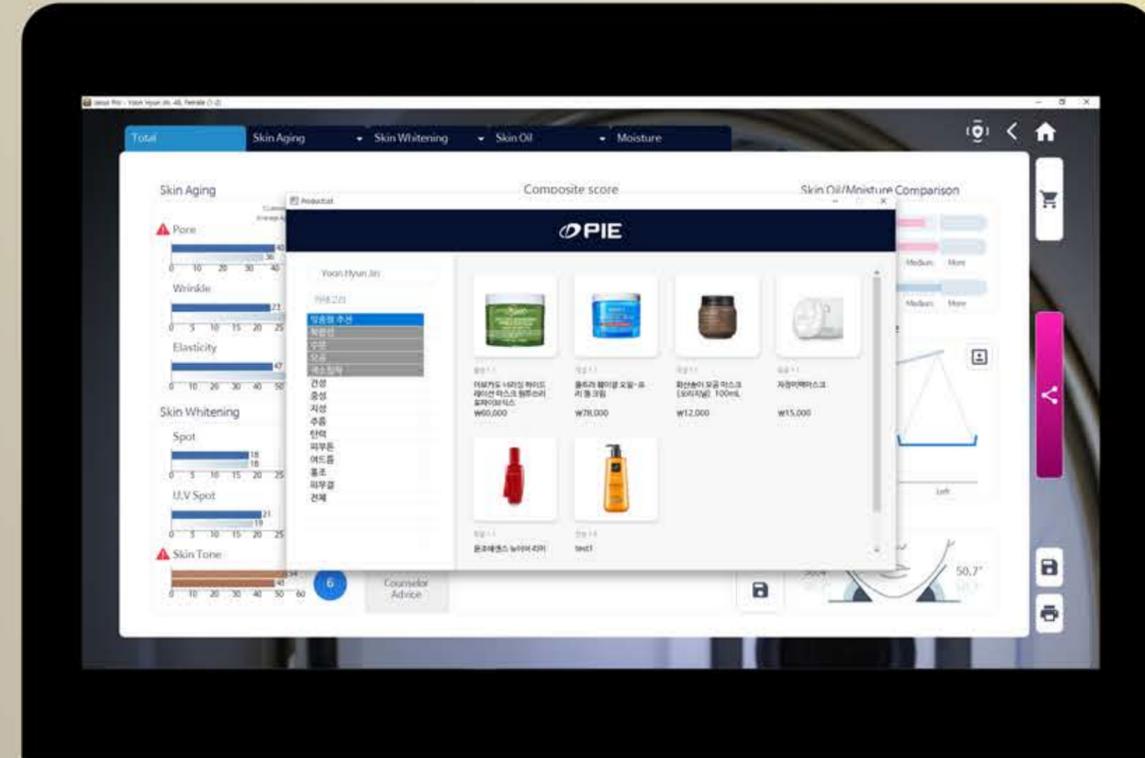
Express cross sections of the skin in 3D space
and observe flexion. It mainly shows pores and
wrinkles effectively.

Comparative analysis and Product recommendation



Before and after comparison analysis

You can accurately show how different your skin is before and after care, and identify which areas you need to focus on later care.



Customized product recommendations

Check the recommended products by item based on analysis results of the analysis. Recognize the needs of products to customers with customized products.

Image Viewer and Field Measurements



Image at a glance

Effectively observe the desired image by changing the light source or size. It is easy to see images of the face and all light sources at once.

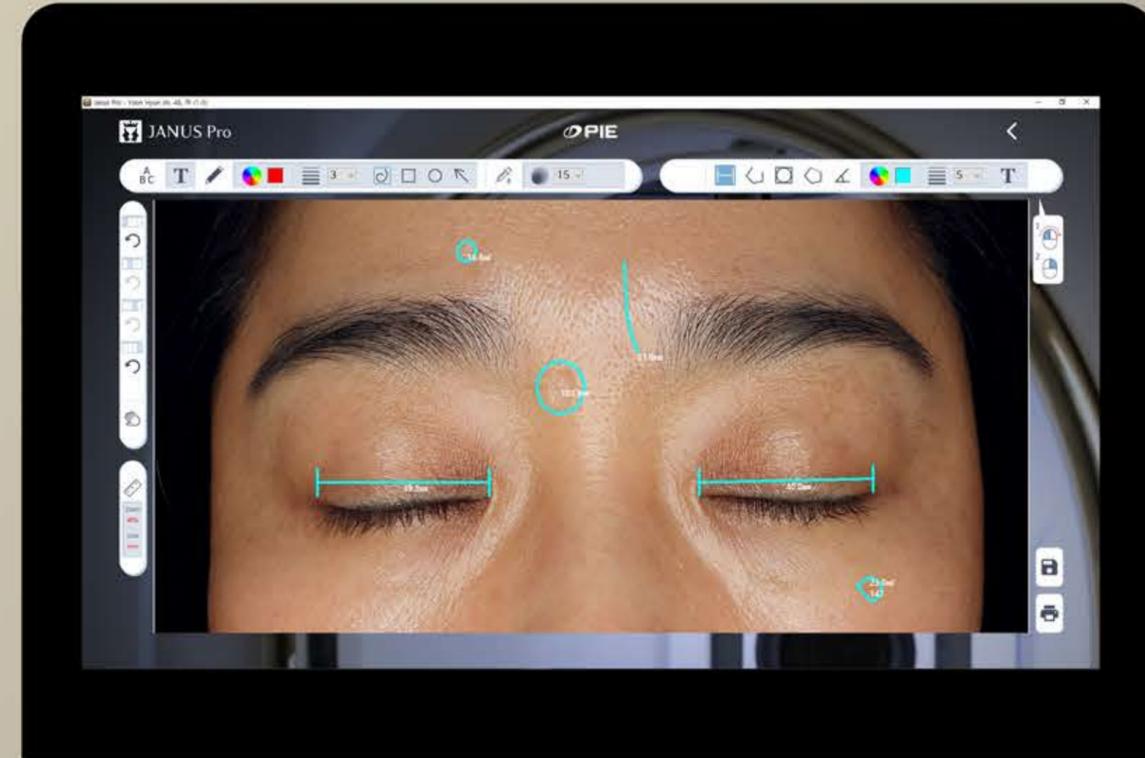


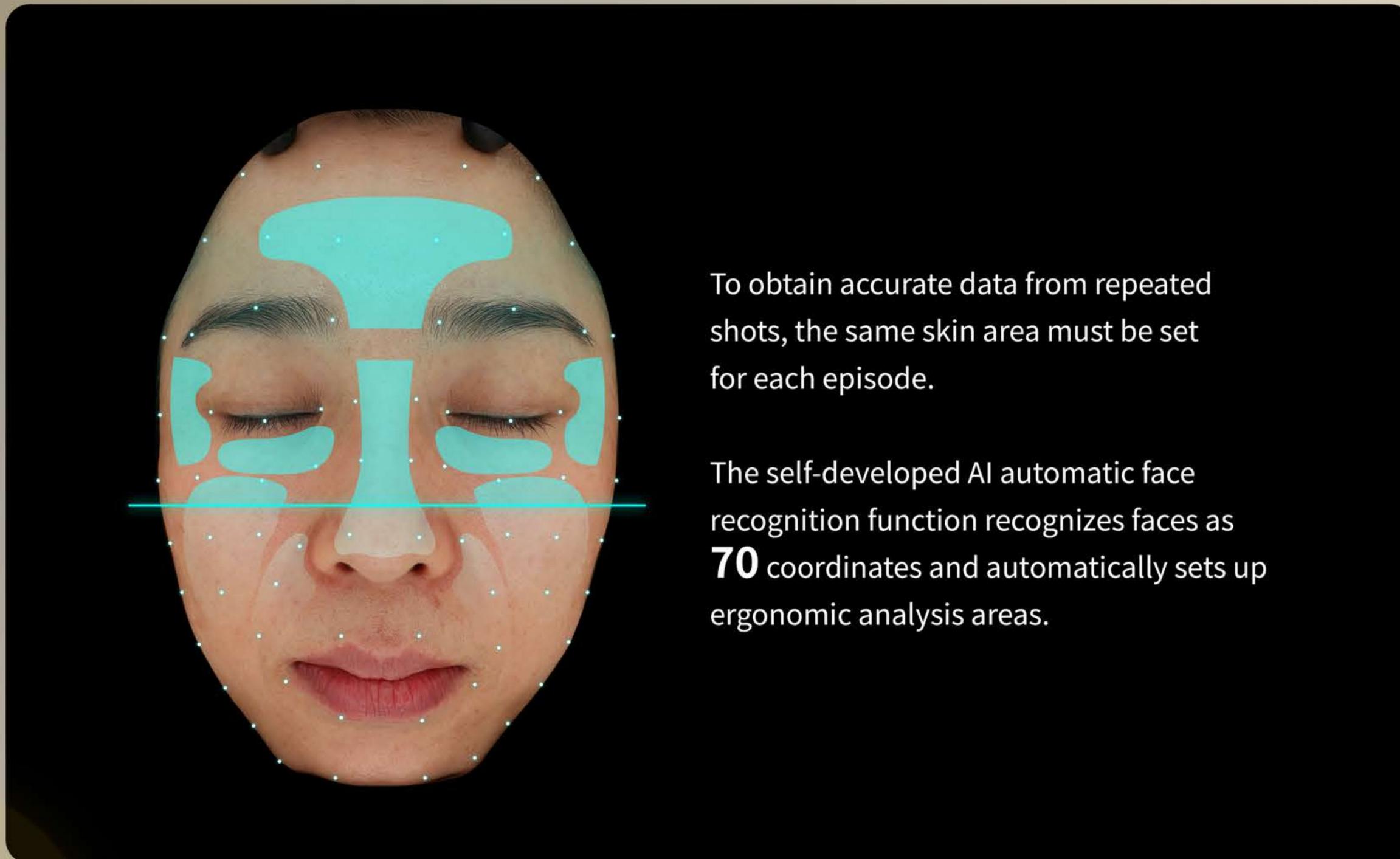
Image Field Measurement

It is set to know the actual size and allows you to measure the length and area of the desired area.



PIE's Technical Skills

- AI Automatic Face Recognition
- Brightness Retention Device
- Smart image calibration
- Big Data & Deep Learning
- Automatic updates and data security



To obtain accurate data from repeated shots, the same skin area must be set for each episode.

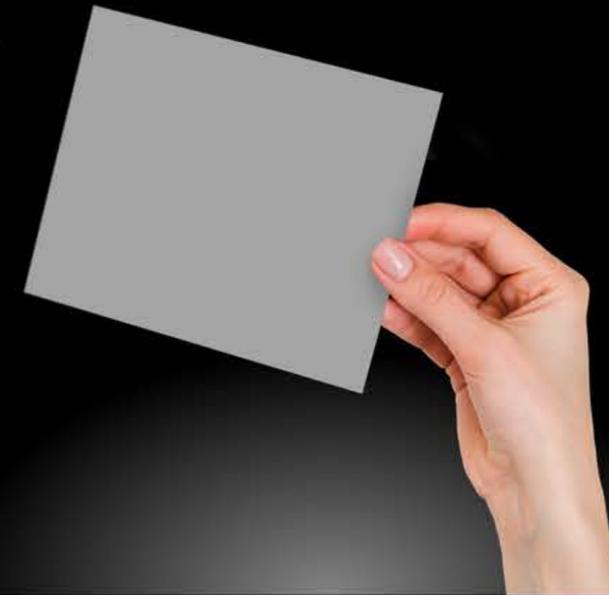
The self-developed AI automatic face recognition function recognizes faces as **70** coordinates and automatically sets up ergonomic analysis areas.

Brightness Retention Device

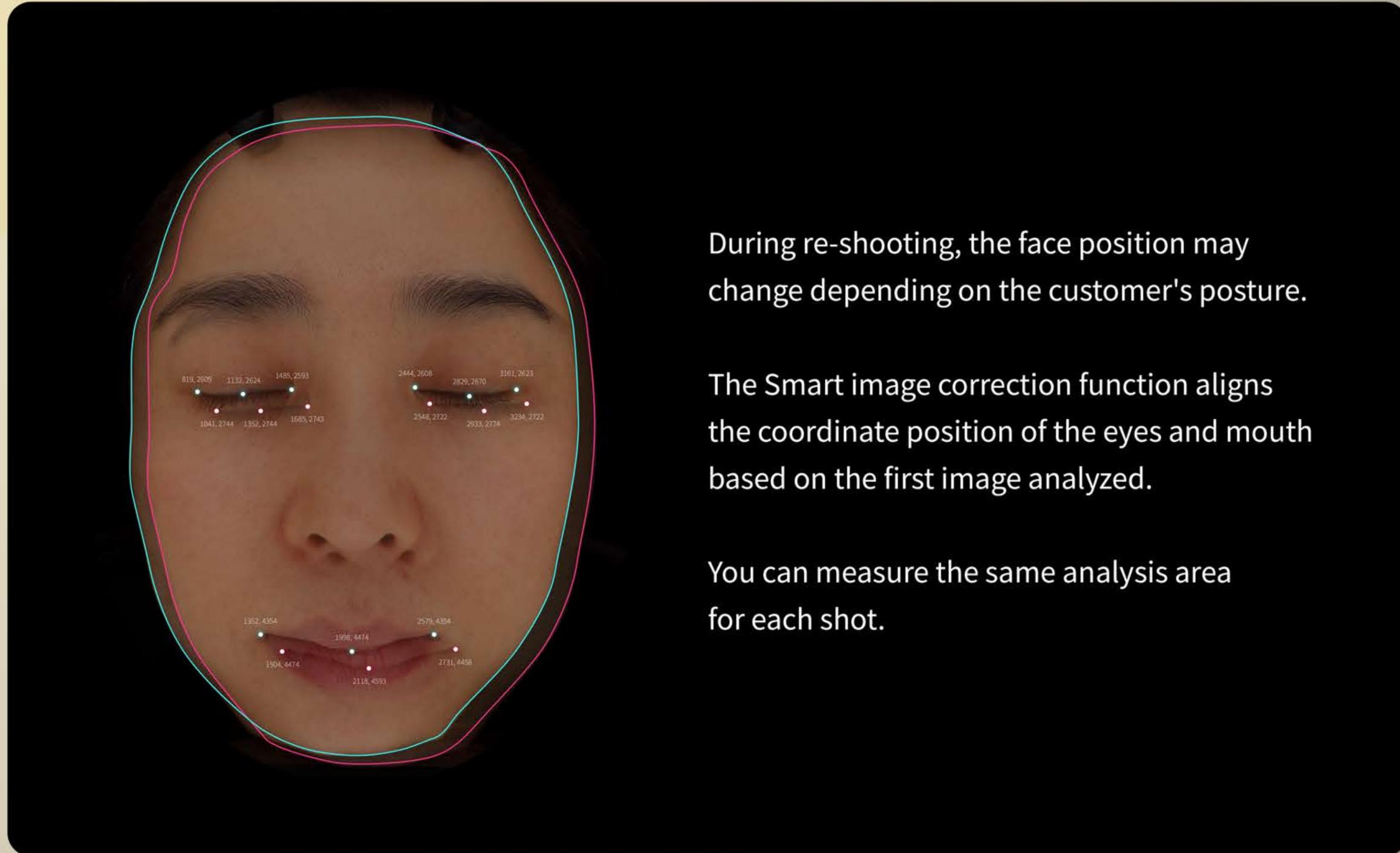


Patent Registration No.
10-2462061

Graycard



Light is the most important factor in filming.
Using the principle of grey card, which is used to accurately balance white,
we have created a brightness holding device so that it can be shot
under the same conditions every time.



During re-shooting, the face position may change depending on the customer's posture.

The Smart image correction function aligns the coordinate position of the eyes and mouth based on the first image analyzed.

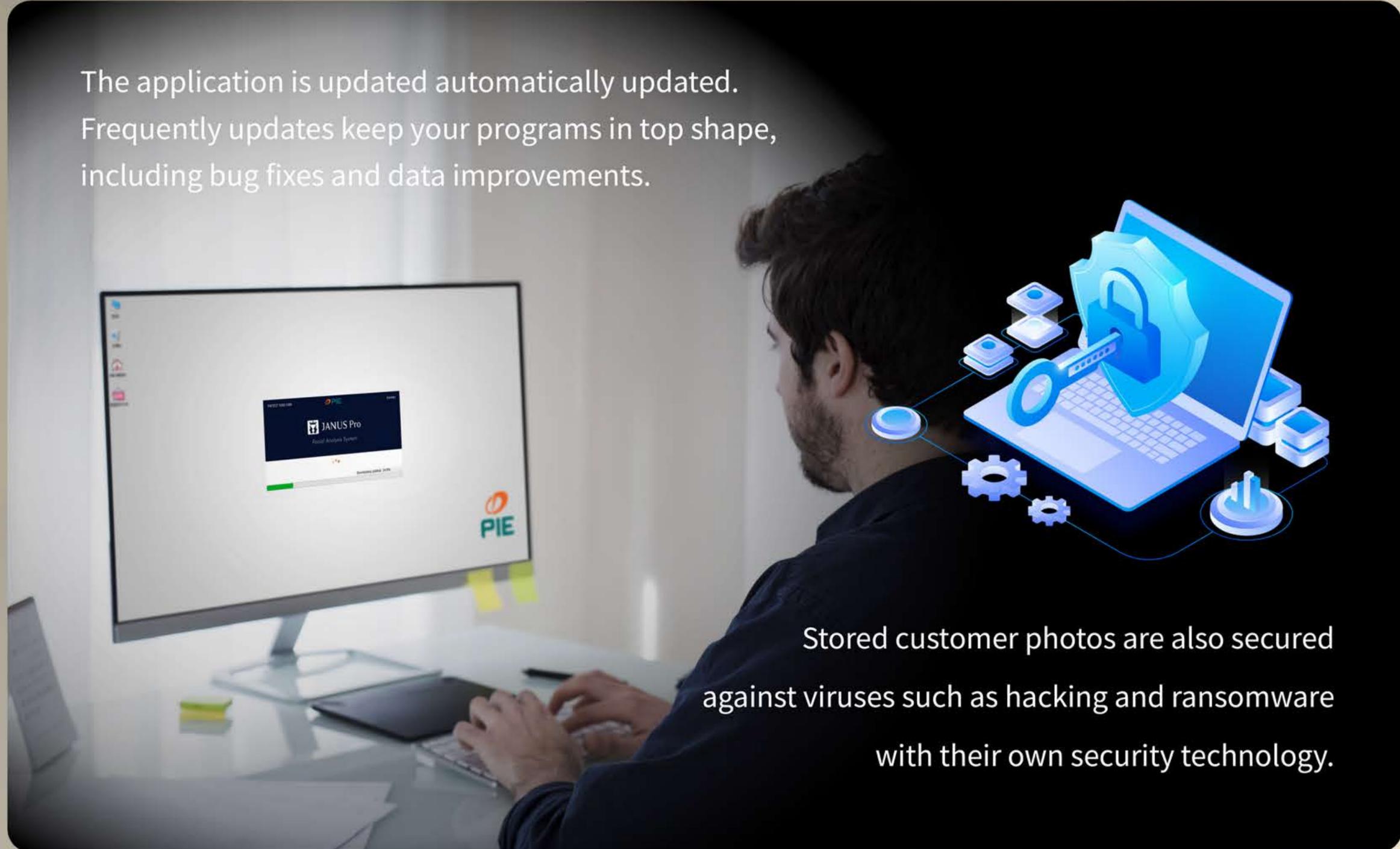
You can measure the same analysis area for each shot.



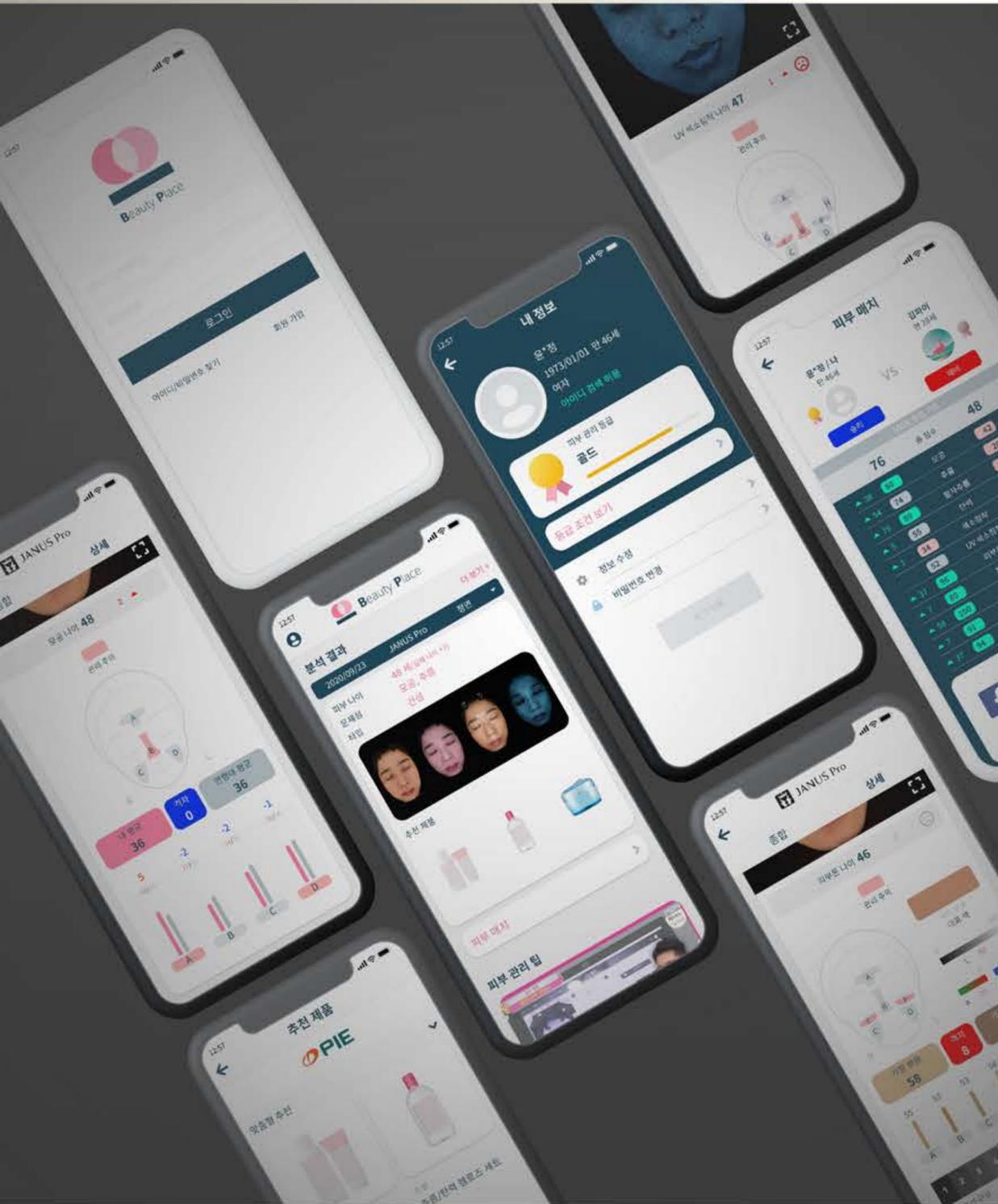
Cloud servers gather global skin analysis data and deep learning creates more accurate analytics logic. Currently, more than **200,000** skin data are accumulated.

Automatic updates and data security

The application is updated automatically updated. Frequently updates keep your programs in top shape, including bug fixes and data improvements.



Stored customer photos are also secured against viruses such as hacking and ransomware with their own security technology.



Special Features

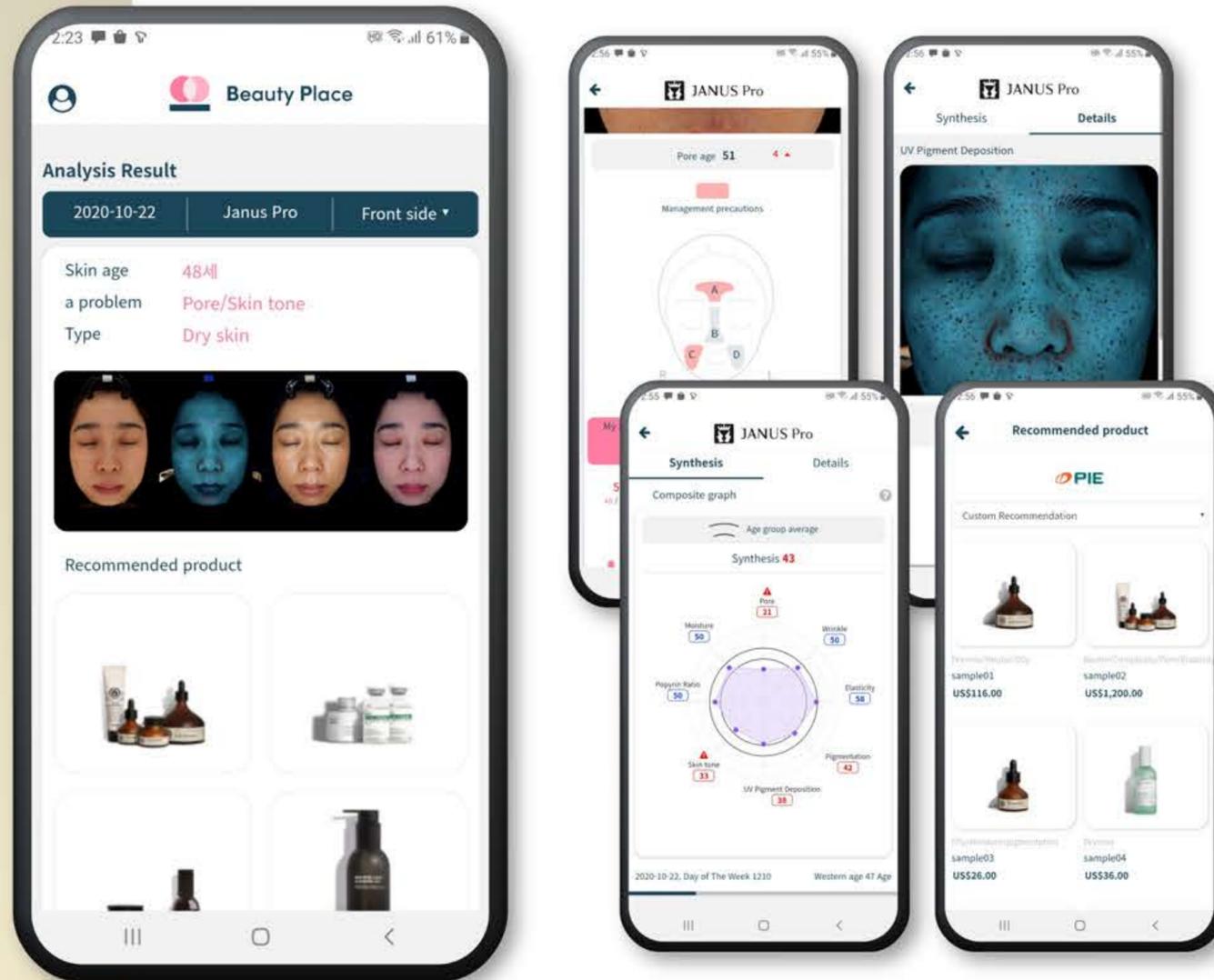
- AI Voice
- Beauty Place App
- Join a Partner



An announcement voice is output from the equipment's speakers so that both the counselor and the customer can have a comfortable shoot.

Put your chin and forehead on the pedestal and close your eyes.

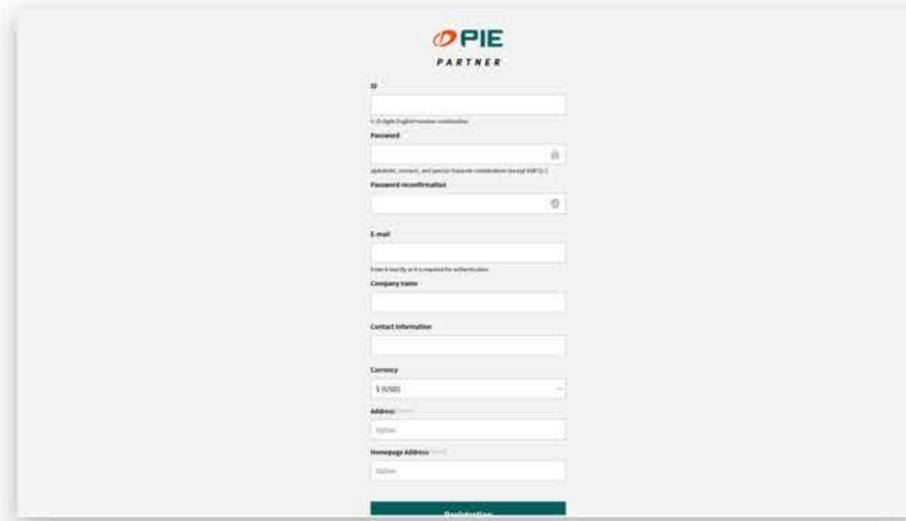




Supports both
Android & iOS

Skin analysis results can be sent to
the customer's cell phone.

Recommend customized products
and show skin care tips videos.



PIE PARTNER

ID

Password

E-mail

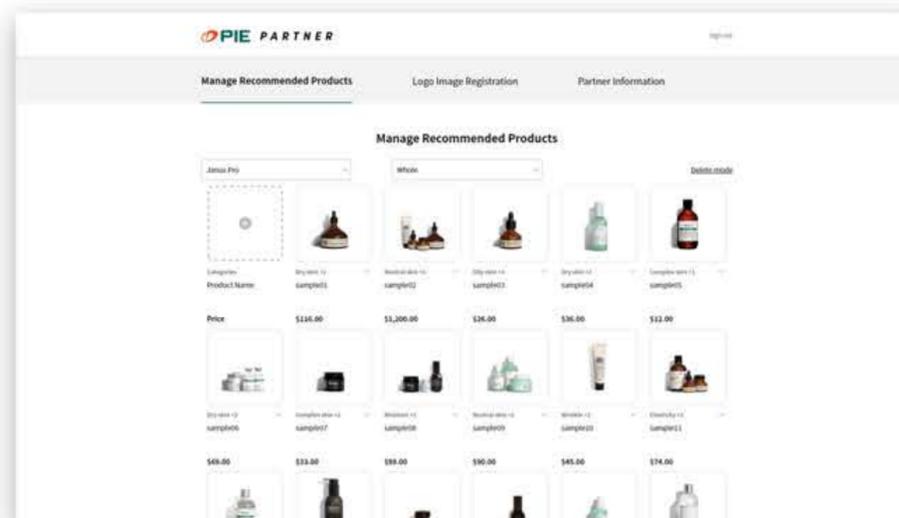
Company Name

Contact Information

Currency

Address

Homepage Address



PIE PARTNER

Manage Recommended Products | Logo Image Registration | Partner Information

Manage Recommended Products

Product Name	Price
sample01	\$100.00
sample02	\$1,200.00
sample03	\$24.00
sample04	\$30.00
sample05	\$12.00
sample06	\$40.00
sample07	\$33.00
sample08	\$55.00
sample09	\$90.00
sample10	\$45.00
sample11	\$74.00

Program and App Manager

By joining a partner company, you can register your company's logo in the program, and it is easy to register, modify, and delete recommended products.



Received: 3 September 2019 | Revised: 8 September 2019 | Accepted: 9 November 2019

DOI: 10.1111/srt.12811

ORIGINAL ARTICLE

Repeated measurements of facial skin characteristics Janus-III measurement system

Sangseob Leem | Junghwa Chang | Yunkwan Kim | Joong-Gon Sh
Hae Jung Song | Seo-Gyeong Lee | Suji Yoo | Jinyong Lee | Joor
Sun Gyoo Park | Nae Gyu Kang

R&D Center, LG Household and Health Care,
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Funding information

The studies presented in this article were
funded by LG Household & Health Care, Ltd.

Abstract

Background: For personalized skin care, noninvasive quantitative facial skin characteristics are important. Janus-III is one of the imaging analysis devices in the skin care industry in Korea. Janus-III is used for a range of skin characteristics. Due to the convenience of Janus-III for a variety of skin characteristics in a single measurement, the use of Janus-III in cosmetic stores and research institutes has been recently increasing. However, the consistency of skin measurements of Janus-III has not been elucidated.

Materials and Methods: In this study, we repeated skin measurements for 70 different subjects and compared each numerical value in order to evaluate the consistency of the Janus-III. For this purpose, we compared between-part measurements and within-sample distances.

Results: We found important patterns for future analyses in this study. First, the average values of skin measurement categories were more reliable than individual part values of facial segments. Second, center part values of forehead and nose were more reliable than side part values such as cheek and chin segments.

Conclusion: If researchers who use Janus-III for studies of facial skin characteristics analyze average and center part values first, they can obtain relatively

Patent & Certification

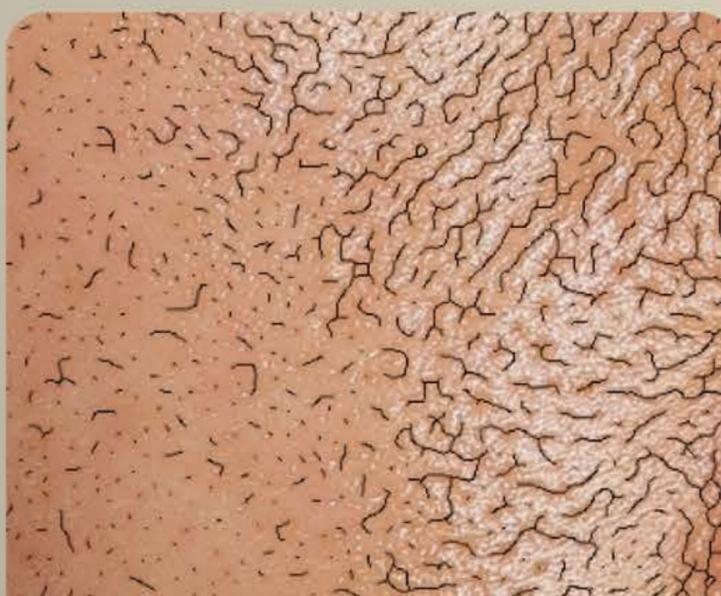
- Patent
- Certification
- Paper



Light source structure

Patent Registration No.

10-2429443



Skin texture analysis

Patent Registration No.

10-2251700



Sensitive data security

Patent Registration No.

10-2091388

Certification



JANUS Pro Sunlike

CE EMC

CE LVD

FCC

KC

EC Declaration of Conformity

EC Declaration of Conformity

According to
EMC Directive 2014/30/EU

For the following product:

Product Name : Facial Analysis System
 Model Name : JANUS Pro Sunlike
 Variant Model Name : N/A
 Applicant : PIE Co., Ltd
 Applicant's Address : 3F, 45 Changyoung-dearo, Paldal-gu, Suwon-si, Gyeonggi-do 16255
 Manufacturer : Same as above

We hereby declare that the product identified above meets the requirements of the EMC Directive 2014/30/EU, as laid out in the guideline set down by the member states of the EEC commission.

This declaration is valid for all samples that are part of this declaration, which are manufactured according to the production charts appendix.



The following harmonized standards were applied in full in accordance to Article 6 of Directive 2014/30/EU:

EN 55032:2015/A11:2020
 EN 55035:2017

PIE Co., Ltd
 3F, 45 Changyoung-dearo, Paldal-gu, Suwon-si, Gyeonggi-do 16255

Date of issue: February 02, 2021
 (Name and signature of authorized person)

EC Declaration of Conformity

EC Declaration of Conformity

According to
LVD Directive 2014/35/EU

For the following

Product : Facial Analysis System
 Model Name : JANUS Pro Sunlike
 Variant Model Name : -
 Applicant Name : PIE Co., Ltd
 Applicant Address : 3F, 45 Changyoung-dearo, Paldal-gu, Suwon-si, Gyeonggi-do 16255 REPUBLIC OF KOREA
 Manufactured Name : Same as above
 Manufactured Address : Same as above

We hereby declare, Low Voltage Directive (2014/35/EU) is fulfilled, as laid out in the guide set down by the member states of the EEC Commission.

This declaration is valid for all samples that are part of this declaration, which are manufactured according to the production charts appendix.



The standards relevant for the evaluation of LVD requirements are as follows:

Test Standard : IEC 62368-1:2018
 IEC 62368-3:2017

Date of issue: January 28, 2021

PIE Co., Ltd
 3F, 45 Changyoung-dearo, Paldal-gu, Suwon-si, Gyeonggi-do 16255 REPUBLIC OF KOREA

(Name and signature of authorized person)

FCC

Supplier's Declaration of Conformity

Applicant's Name: PIE Co., Ltd.
 Applicant's Address: 3F, 45 Changyoung-dearo, Paldal-gu, Suwon-si, Gyeonggi-do 16255
 Manufacturer's Name: Same as above

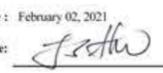
Declares that the product:

Type of Equipment: Facial Analysis System
 Model Name: JANUS Pro Sunlike
 Variant Model: N/A

Applicable Regulation: PART 15 Subpart B

I, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s) and Standard(s) as described in the attached test report.

TESTED and CERTIFIED by:
Korea Standard Testlab
 107-27, Jangdeokdong-gil, Namyang-eup, Hwaseong-si, Gyeonggi-do, Korea
 Tel: +82-31-356-7333 Fax: +82-31-356-7303

Date of issue: February 02, 2021
 Authorized Signature: 

09AD-000F-1021-0021

방송통신기자재등의 적합등록 필증

Registration of Broadcasting and Communication Equipments

상호 또는 설명 Trade Name or Register	파이 주식회사
기자재명칭(제품명칭) Equipment Name	Facial Analysis System
기기부호/추가 기기부호 Equipment code /Additional Equipment code	IM161
기본모델명 Basic Model Number	JANUS Pro Sunlike
과형모델명 Series Model Number	
등록번호 Registration No.	R-R-ple-JANUSPROS
제조장/제조국가 Manufacturer/Country of Origin	파이 주식회사 / 한국
등록연월일 Date of Registration	2021-02-08
기타 Others	

위 기자재는 「전파법」 제58조의2 제3항에 따라 등록되었음을 증명합니다.
 It is verified that foregoing equipment has been registered under the Clause 3, Article 58-2 of Radio Waves Act.

2021년(Year) 02월(Month) 08일(Day)

국립전파연구원장
 Director General of National Radio Research Agency



* 적합등록 방송통신기자재는 반드시 "적합성평가표시"를 부착하여야 유효합니다.
 * 원산지 표시 및 등록이 취소될 수 있습니다.



1



2



3



4



5



6



7



8



9

Listed in SCI-level papers

The fourth generation of JANUS has been utilized in many SCI-level papers.

Please refer to the appendix page for the thesis name.



Specification

- Specification
- Addendum

Specification

Unit: cm



Camera	Canon EOS 200D II or EOS R-100
Pixel number	24.1 million pixels
Lens	Canon 18-55mm IS STM
Light source	LED(SunLike) + UV LED(385nm)
Dimension	42 x 38 x 54cm, 10.4kg
Analysis Items	Pore/ wrinkles/ Nasolabial folds Elasticity/ Jaw angle/ Pigmentation UV pigmentation/ Skin tone/ Redness Sebum/ Porphyrin/ Moisture/ Skin texture (13 in total)
Languages	Korean/ English/ Chinese/ Japanese/ Traditional Chinese/ Russian/ Vietnamese/ German/ Thai/ French/ Portuguese/ Italian/ Hungarian/ Indonesian/ Spanish/ Arabic/ Mongolian/ Bulgarian/ Turkish/ Hebrew/ Serbian (total of 21)
Terminals	USB 3.0 x 3/ PC/ INPUT
OS	Windows® 8/10/11 (64-bit), Not supported on ARM-based processors



1. Comparative analysis of skin characteristics evaluation by a dermatologist and the Janus-III measurement system
2. Genome-wide association analysis of 17,019 Korean women identifies variants associated with facial pigmented spots
3. Repeated measurements of facial skin characteristics using the Janus-III measurement system
4. Duration of Action of AbobotulinumtoxinA and OnabotulinumtoxinA
5. Effects of low-level laser therapy, electroacupuncture, and radiofrequency on the pigmentation and skin tone of adult women
6. Effects of radiofrequency, electroacupuncture, and low-level laser therapy on the wrinkles and moisture content of the forehead, eyes, and cheek
7. Photodynamic Therapy with Ablative Carbon Dioxide Fractional Laser in Treatment of Actinic Keratosis
8. Treatment of early-stage erythematotelangiectatic rosacea with a Q-switched 595-nm Nd:YAG laser
9. Treatment of melasma by low-fluence 1064 nm Q-switched Nd:YAG laser

Thank you.



PIE Co., Ltd

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