EBS ANIMA

Three Camera Skin Analyzer

SKIN ANALYZER-Q2 Series

The first self-developed three camera skin analyzer in China.National exclusive patented technology has been obtained.Provide dermatological data models with a number of Grade A Class Three Public hospitals strategic cooperation.

CONTENTS

01

Product introduction

Product Introduction

Function advantage:

US imported 48 million pixel surround industrial grade cameras, 180-degree automatic acquisition 8 spectral detection images, no need to move the face, one-button intelligent detection facial left, middle, right face image.Accurate quantification of face skin problems from multiple dimensions.The surface layer and deep skin problems of different skin types are accurately measured by the AI algorithm(Acne skin / sensitive skin / spots skin / aging skin), including the density, area, number, and grade of the indicator.And provide skin disease data models with a number of Grade A Class Three Public hospitals strategic cooperation.

Product introduction:

The 48 million surround industrial cameras imported from the United States can automatically collect 8 spectral images at 180 degrees in all directions, without moving the face, intelligently detect the left, middle and right facial images with one button, and accurately quantify facial skin problems in multiple dimensions. AI algorithm accurately measures the density, area, number and grade of different skin layers of acne sensitive, pigmented and aging skin, and cooperates with a number of top three public hospitals to provide skin disease data model.

Q2 three-camera advantage

Overall mode: automatic detection (left, positive, right face), no need to move the face when shooting

Personalization mode: autonomous choice (left, positive, right face), shooting single side, no moving face

01

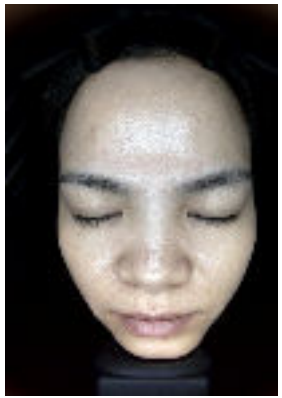
With US imported 48 million pixel surround industrial grade cameras, there is no need to move the face, you can automatically shoot the surface of the left right face and the deep different skin levels.Through the AI face recognition technology, the skin indicators of the facial different dimensions are automatically quantified, and different skin indicators of the left, medium and right faces can be intelligently switched, and the surface skin problems can be fully analyzed, so that the face problem is nowhere.

02

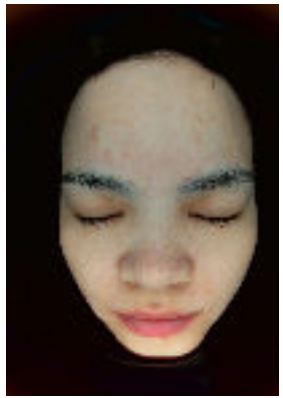
Array multi-spectral imaging technology system.Spectral penetration is stronger, and the imaging is clearer.

Multispectral image presentation (front face)

RGB white light



Parallel polarized light



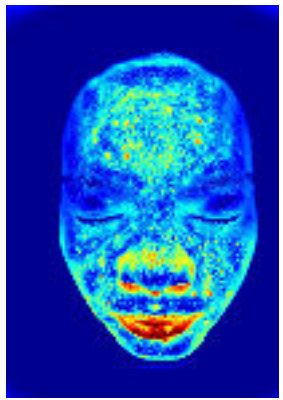
Cross-polarized light

UV light

Blue light

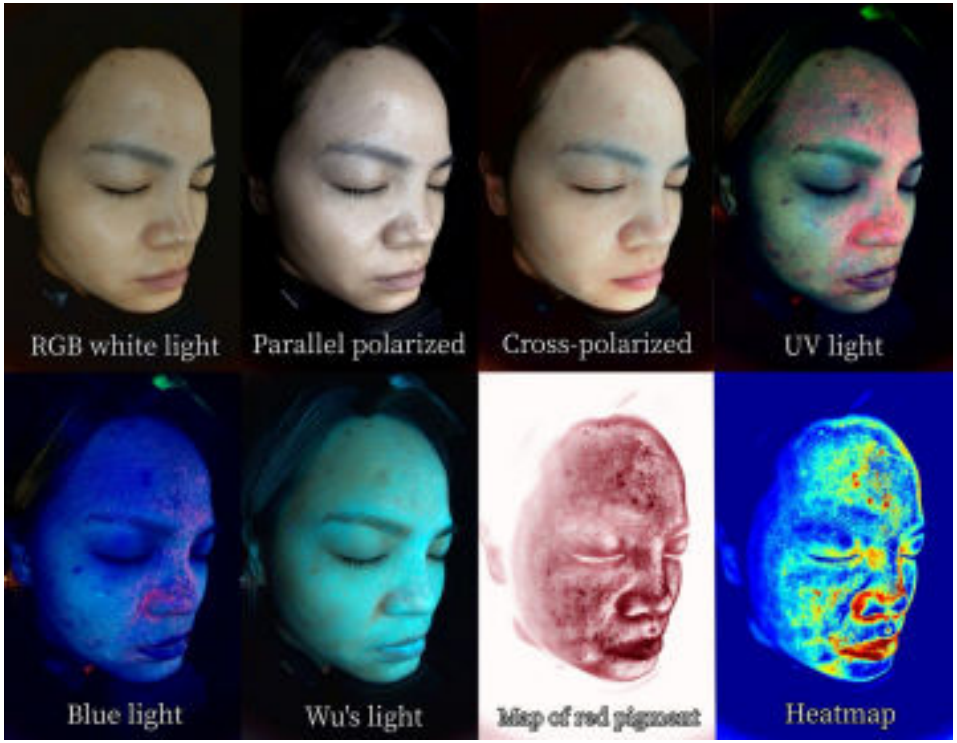
Wu’ s light

Map of red pigment



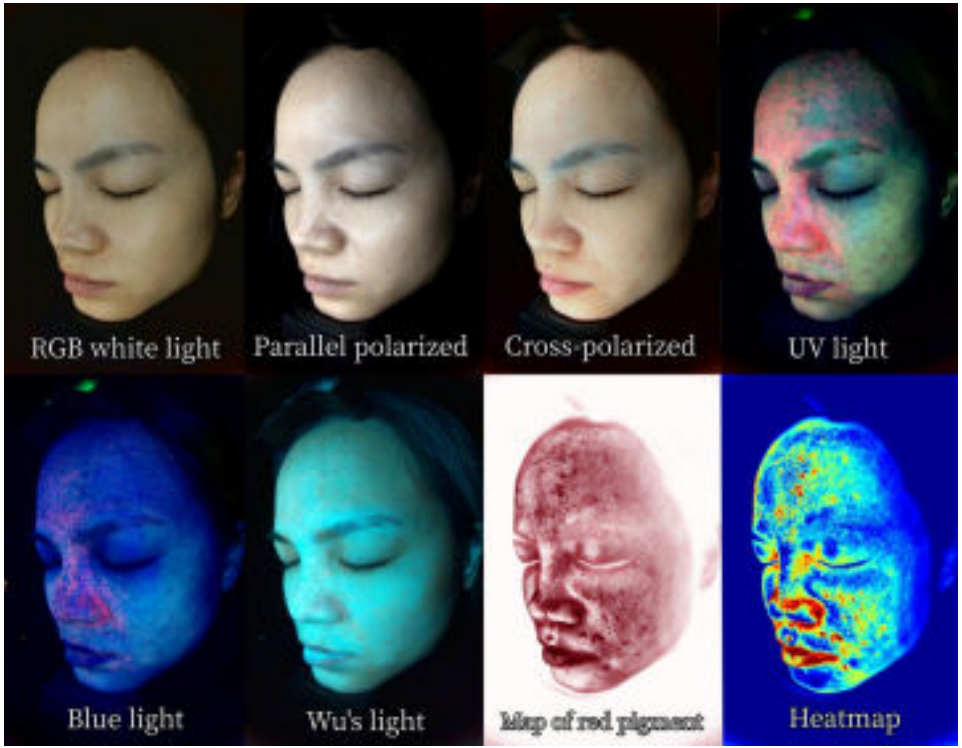
Heatmap

Multispectral image presentation



Right face spectrum image

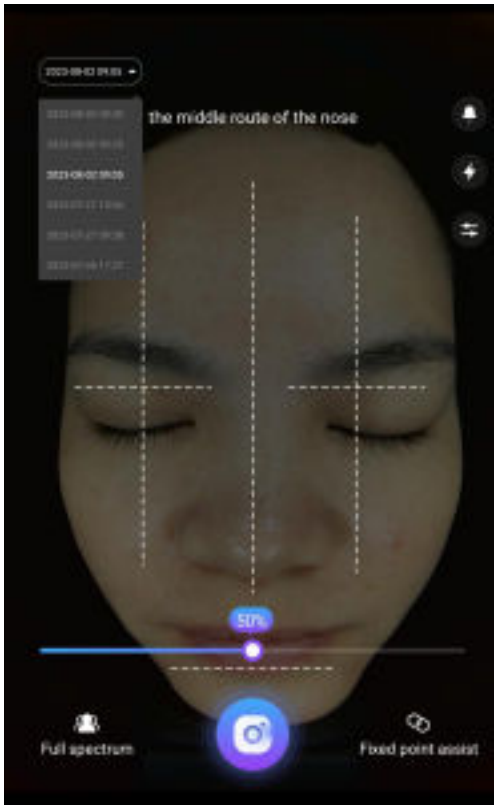
Left face spectrum image



02

Software introduction

AI smart location image shooting



0 1

AI positioning fumet mode:

The first shooting detection will display the first shooting of the personal image ghosting, and the strength of the ghosting can be adjusted according to the needs of the operator, and the files can be selected for different times, and the weight of the photographic vain is made, better comparison before and after treatment.

0 2

Three-wire mode:

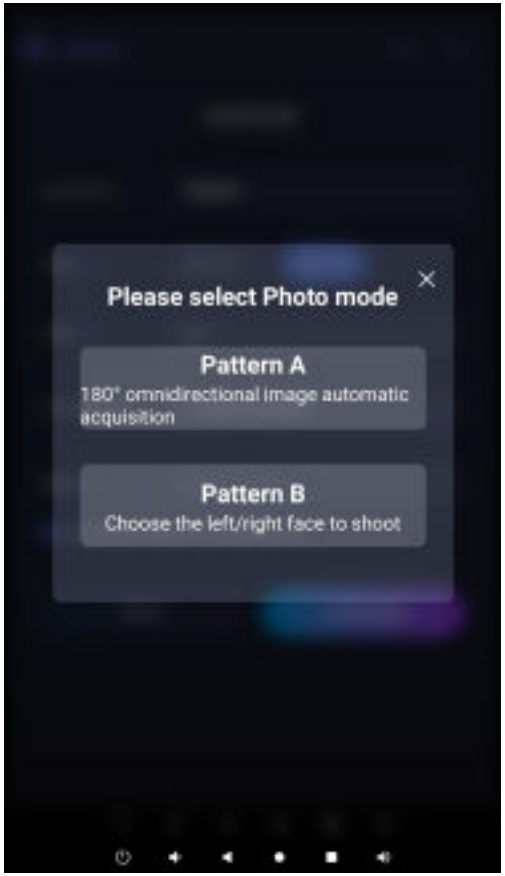
Let the operator better allow customers to take the line to shoot, ensure the correct and accuracy of the image collection.

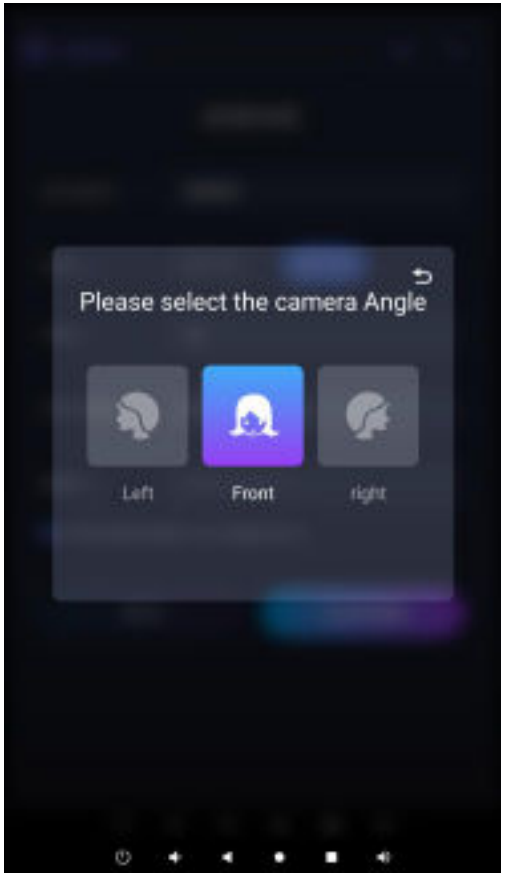
0 3

Light debugging mode:

Depending on the human species of different skin colors, the demand of the customer can debug the tones of the light.

AI multi-dimensional image shooting mode





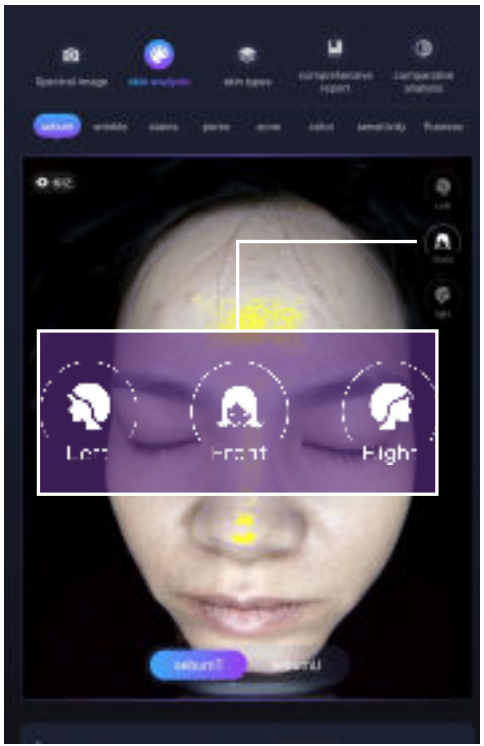
A mode:

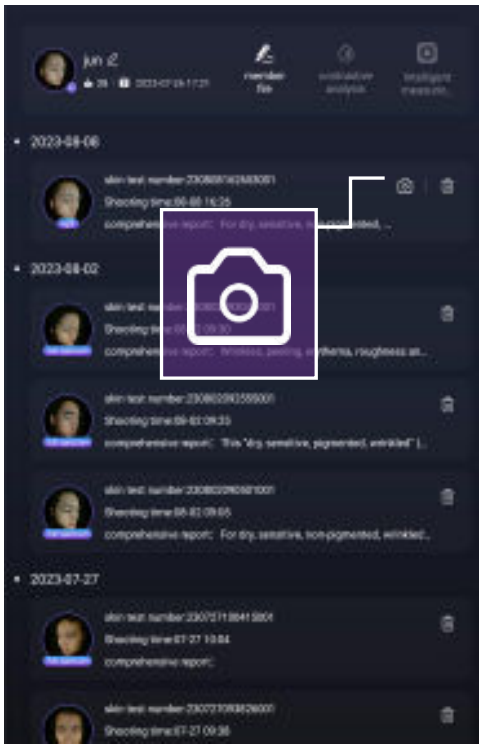
All-round automatic acquisition (left / middle / right) face 3 angles, one-button shooting, no need to move the face, 18 indicators of the three facial angles can be quantified, and the operation is smart.

B mode:

You can choose the face of the single-sided (left / middle / right) to shoot according to the face of the customer wants to detect and quantitative analysis.

AI intelligent switching capture





Autonomous switching mode:

Click on the icon in the upper right corner to switch different angle facial detection results, freely switch the quantitative indicator data of different dimensions of the face of the same file. To obtain a corresponding recommended product solution.

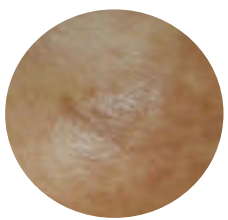
Intelligent tap mode:

For example, only the face image is taken before shooting, so the image capture of the skin (left, right) can be collected for the image of the image (left, right), and support the quantization of different angles after the feed, no need to rebuild the file.

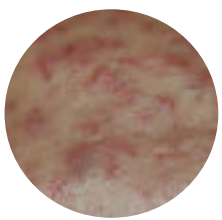
Multi-spectral image analysis

RGB white light:

In the state of natural light, the sun is a soft and uniform light, and the multi-directional diffuse light is utilizedly illuminated with the full face without shadow and sharp lines, and can detect the skin color.Clearly see wrinkles, pores, color spots, and acne. It is clear that the state of the face skin in natural daylight can be used as the basis for the overall assessment of the clinical skin.



Stains



Acne

Wrinkle

Pores

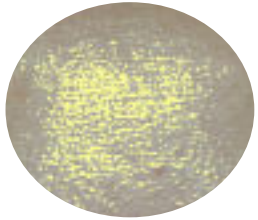
RGB white light

Multi-spectral image analysis

Parallel polarized light:

Parallel polarized light mode uses a special parallel polarized mirror group, reducing the visibility of the skin characteristics below the skin surface, and enhances the optical reflection of the skin surface, so that the surface texture of the skin is clearer.After switching to this mode, you can strengthen the identification of details, clearly observe the flatness of the skin, fine lines and wrinkles. Enhance thin lines, wrinkles display clarity, so that the skin texture is easier to distinguish, easy to calculate the AI algorithm

Wrinkle



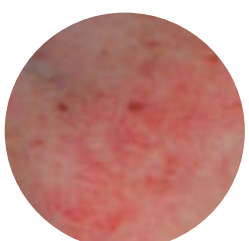
Sebum

Parallel polarized light

Multi-spectral image analysis

Cross-polarized light:

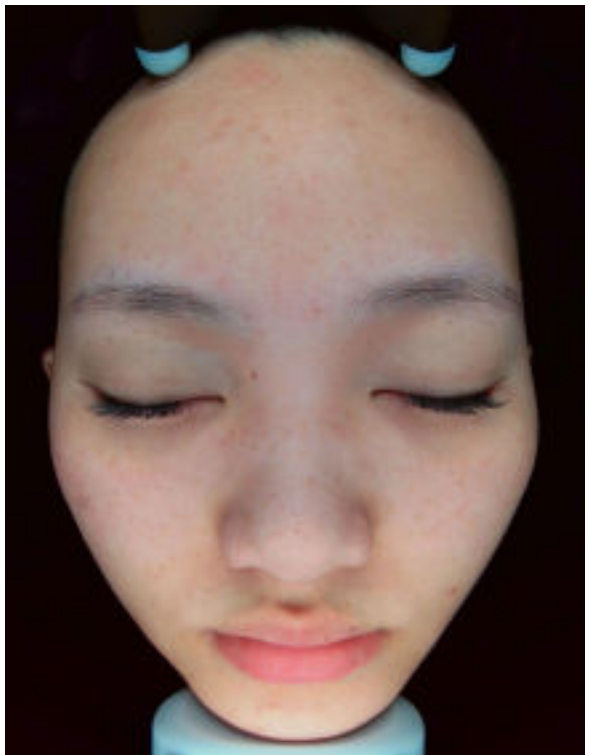
The cross-polarized light mode uses a special cross-polarizing mirror group, which can effectively reflect light directly.Make us clearly observe the microvascular structure hidden under the skin under the skin and the bright skin.Sensitive skin features are more obvious and expose irregular skin characteristics below the skin.



Red blood

Sensitive surface skin

Acne marks

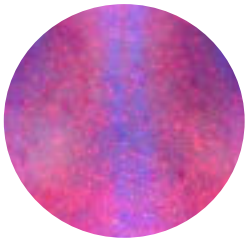


Cross-polarized light

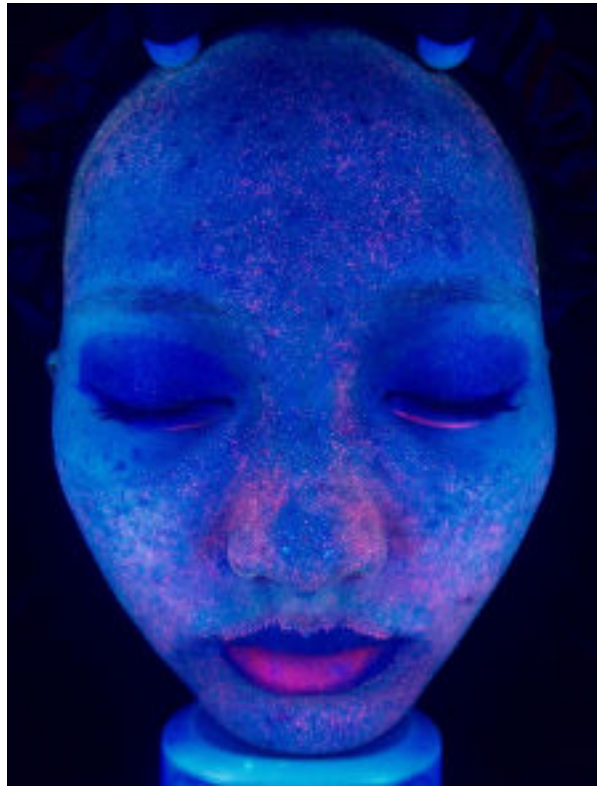
Multi-spectral image analysis

Blue light:

Under the wavelength of 405 nm, and the filter is used under the UV blue irradiation of the filter, it is harmless to penetrate into the skin of the skin.Skin cells and tissues have natural functions that convert invisible light into visible fluorescence, thereby effective to make the skin become a illuminator.Since the light is produced from the skin, not the effect of general projection. Therefore, the status of sebum secretion, deep acne, porphyrin, and flora distribution can be clearly visible.



Porphyrin

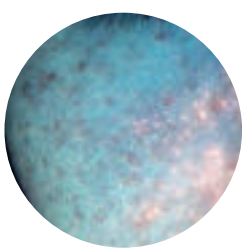


Blue light

Multi-spectral image analysis

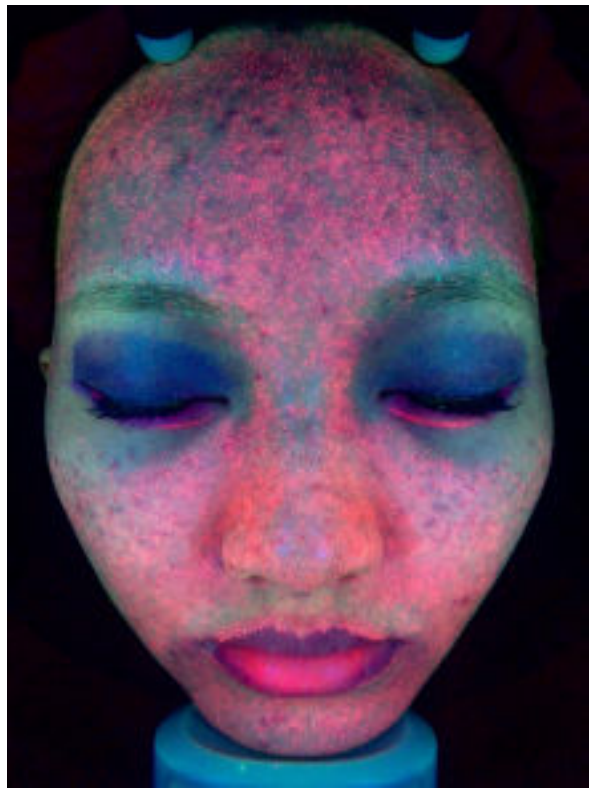
UV light:

In the wavelength of 365 nm, and the UV light is irradiated under the filter sheet, the invisible light can penetrate to the skin skin layer.It is mainly used to observe skin features such as the pigmentation, acne-indicinin, and deep pigmentation, and deep pigmentation due to ultraviolet irradiation.



Metabolic spot、pigmentation

Acne margin residue

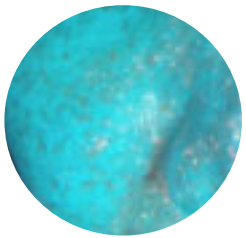


UV light

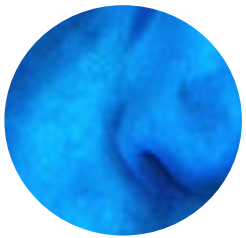
Multi-spectral image analysis

Wu’s light:

The clinical role of the special Wood’s mode is reacted to the skin, and it is used to observe the subcutaneous vascular and pigmentary lesions due to ultraviolet irradiation, brown spots, erythema, etc.Potential dangers such as chloasma, acne, and spider-shaped intravaramia caused by them are revealed.Strong highlights of fluorescent agents and chemicals will have strong fluorescence and chemical residual reflection,Thereby identify whether skin care cosmetics contain fluorescent agents.

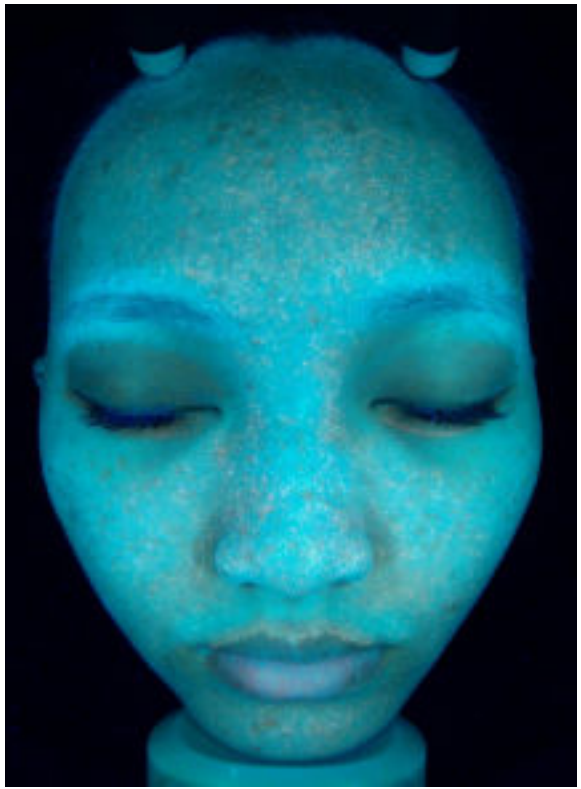


Deep pigment



Fluorescent agent

Pigment loss (white epilepsy)

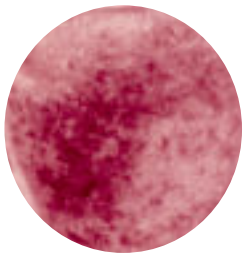


Wu’s light

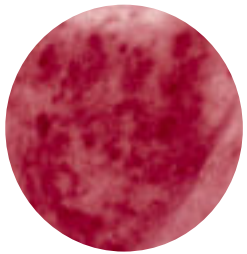
Multi-spectral image analysis

Composite light / Map of red pigment:

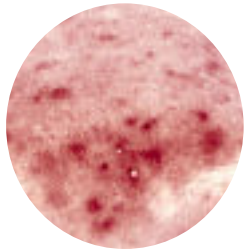
Map of red pigment obtained by combining the composite spectroscopy and the AI algorithm.Decades the degree of red zone, more intuitive to see the distribution of hemodern cells.The sensitivity of the reaction, red blood, deep inflammation, etc., the sensitive skin features are more obvious.



Deep red blood



Deep sensitive



Deep acne marks

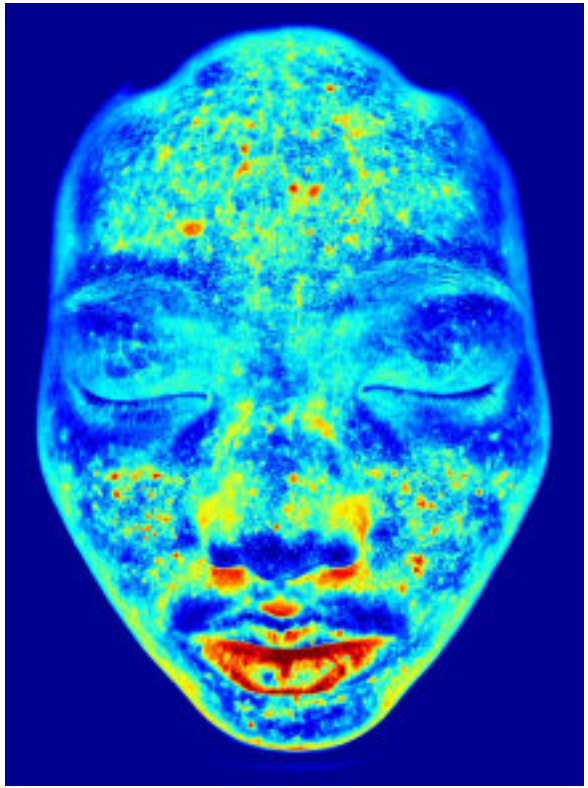
Deep heme map

Multi-spectral image analysis

Composite / Heatmap:

The Heatmap of the composite spectroscopy and the AI algorithm.It is mainly to the sensitive response of the skin. Sensitive area refers to the area of hemoglobin content.Usually, there is a certain region of the skin or other lesions. The content of the blood red eggs in this area will rise, and it can be clearly seen that the sensitive part has obvious red phenomenon.

- Green - mild inflammation
- Yellow - moderate inflammation
- Red - severe inflammation

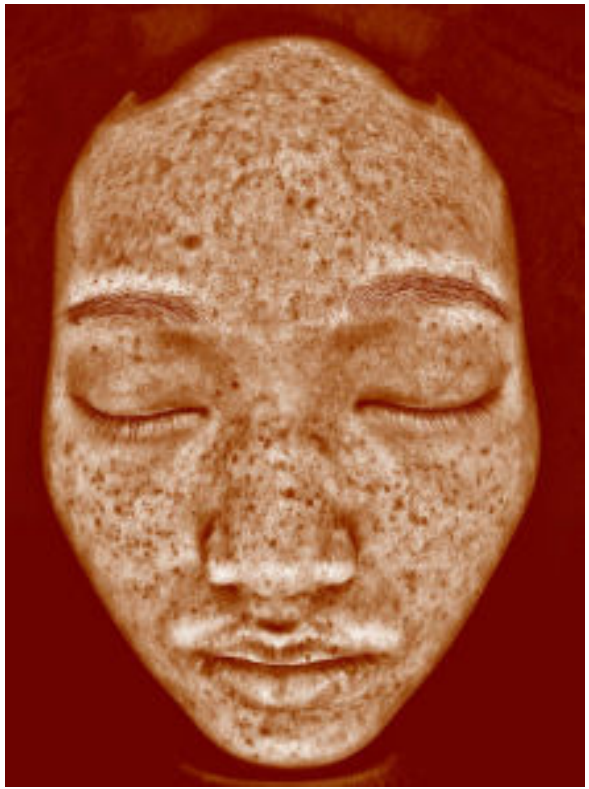


Deep inflammation map

Multi-spectral image analysis

Composite light / brown picture:

Brown maps from the composite spectroscopy and the AI algorithm. RBX image analysis technology, generated by Wood'S, clearly see the distribution and deposition of melanin in skin dermin,It is analyzed to the range of pigments by melanin (eg, reunion, irregular, larger slices, acne marks, spots, scars, etc.).



Deep color distribution and pigmentation

Let skin problems nowhere

Introduction to quantitative indicator analysis

More intuitive, more applicable indicators

Different types of skin (acne/sensitivity/stains/aging) from the 9 dimensions of the surface spectra to the deep spectra of the surface of the surface of 18 problems indicators,At the same time, the skin problems of pathological skin such as (vitiligo, fluorescent agent, hormone face) are visually displayed in a graphical manner.

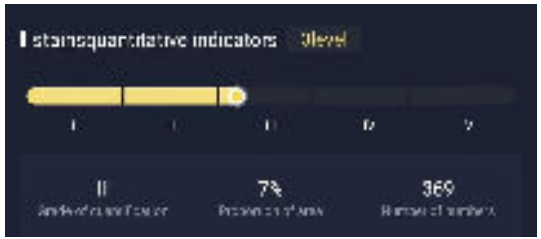
Algorithm new upgrade, quantify more dimensions

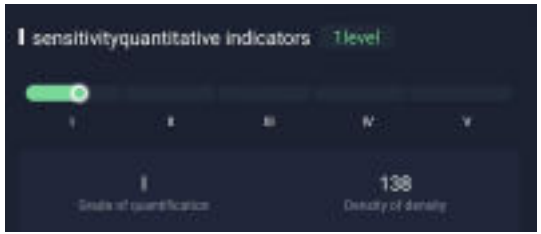
According to the AI algorithm, according to the model of the skin problem, the problem point is labeled, combined with deep learning algorithm, strengthening learning algorithm, generating AI, etc.Use massive precision side face high quality label data training,Realize the density, length, number, grade indicator data of the precision quantization facial skin,Combined with the principle of skin and the characteristics of the skin of the Chinese population, quantitative analysis results and precautions.

As accurate measurement

After the artificial intelligence algorithm is quantified, the product treatment plan is accurately pushed for skin problems to achieve accurate therapeutic effects.

Software introduction





Data analysis of different dimensions of spots, sensitivity, acne, and decay indicators from density, length, number, and grade indicators.

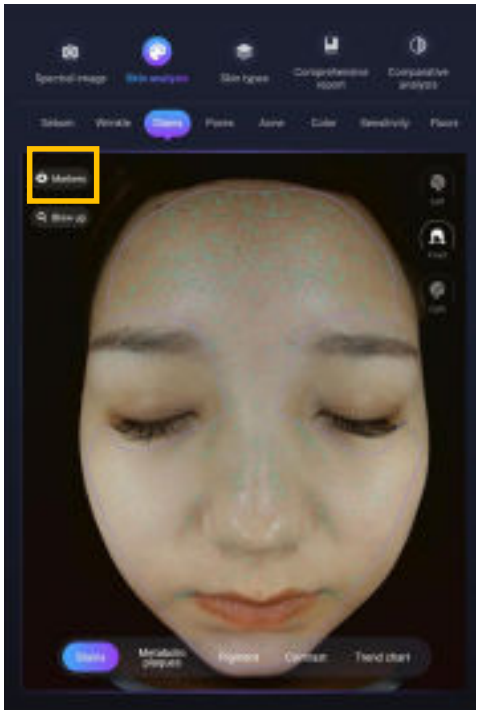
Stains: AI calculates the color spots and deep domination, number, quantization level for analysis

sensitivity: AI calculates the sensitive surface layer, deep accounting area, density, quantization level analysis

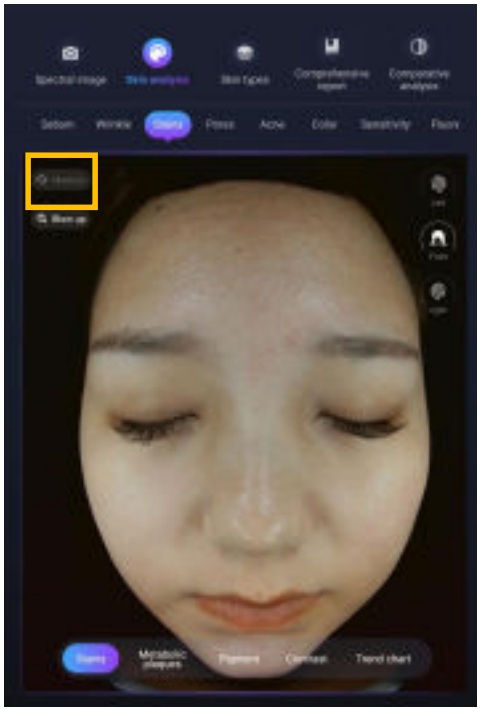
Acne (pox muscle): AI calculates acne, pores, blackhead surface, deep accounting area, number, quantization level for analysis

Wrinkle: AI calculates the wrinkle surface, deep number, quantization level for analysis

Software Introduction - Marking Function



Mark quantization area

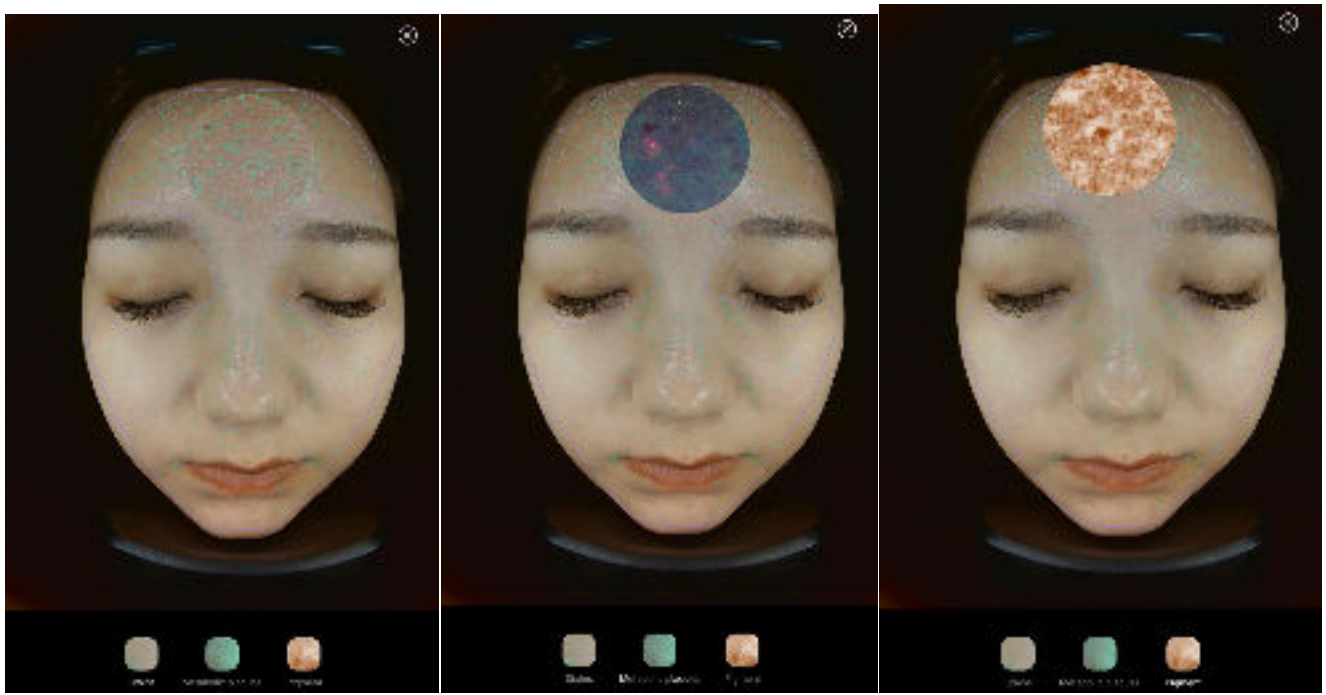


Turn off the display of the marked original image

Software Introduction - Local Enlargement Function

Enlarge and view local issues:

For wrinkles, discoloration, and sensitivity: Local magnification of the image can provide a clearer view of the surface and deep problem areas of the skin, allowing customers to have a clear understanding of the severity of skin damag。

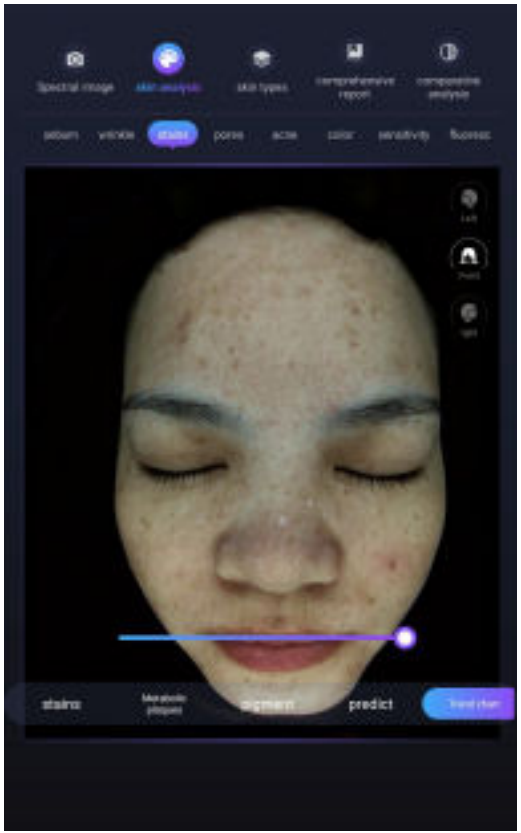


stain

Metabolic plaques

pigment

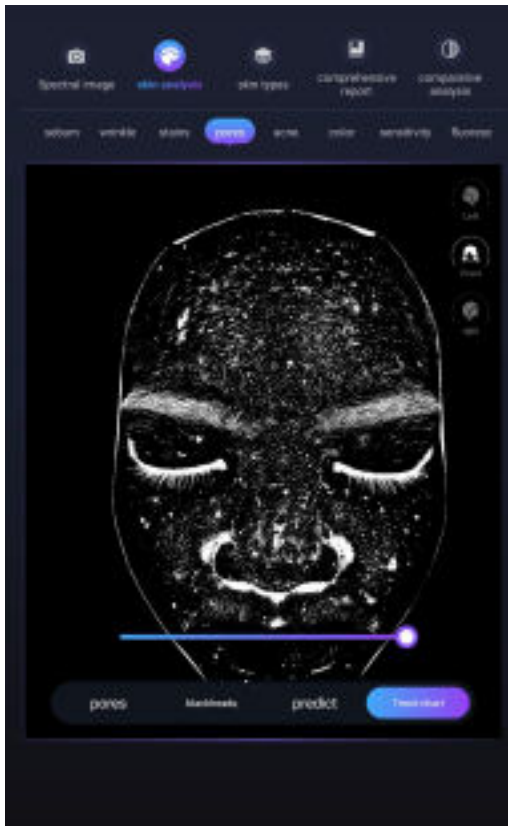
Software introduction - Stains trend chart



Stains trend chart:

This figure is processed by the algorithm by cross-polarizing light image, mainly presenting the regional distribution of the skin's superficial color pigment.Symptoms such as skin hidden in skin, pigmentation, acne marks, and inflammation have more obvious symptoms, and the visual contrast is more strong.It is conducive to us to judge the trend and potential problems of the color spots.

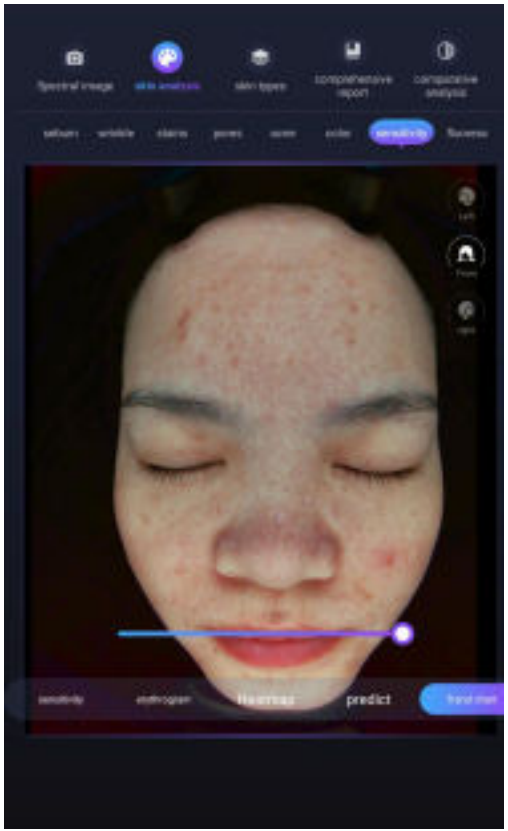
Software introduction - pores trend chart



pores trend chart:

By strengthening learning technology, data training using a large number of high-quality images, forming algorithm models and super pixel technology, In the image (circular point, small diameter) is a pore expansion area. It is conducive to us to judge the trend and potential problems of the next 5-10 years of pores.

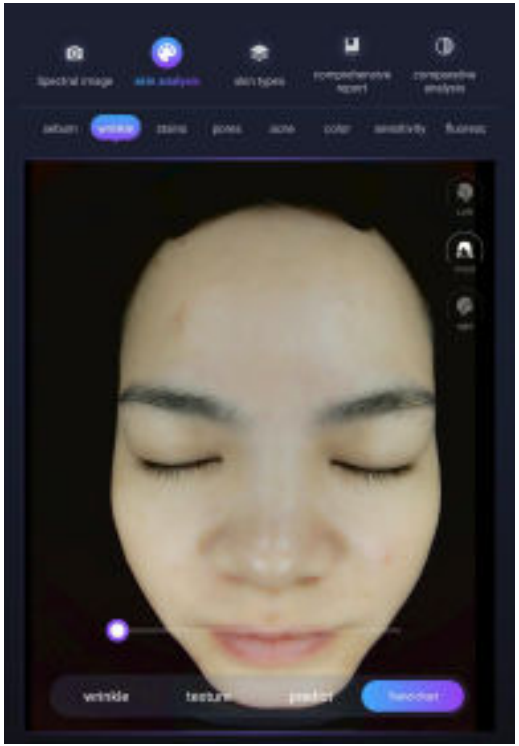
Software introduction - sensitivity trend chart



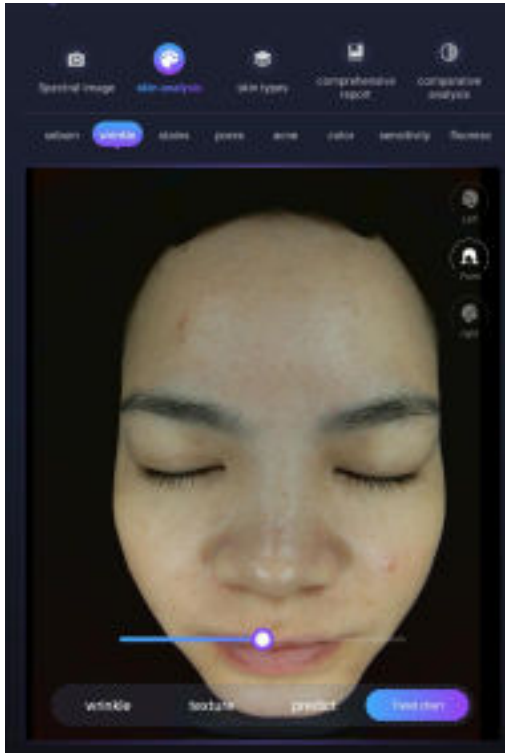
sensitivity trend chart:

The figure is processed by the algorithm through cross-polarized light image, mainly exhibiting the regional distribution of the skin's superficial red pigment.It can make the skin hidden capillaries, sensitivity, inflammation, and red blood, etc., more visual comparison effect.It is conducive to us to judge the trend and potential problems of sensitivity.

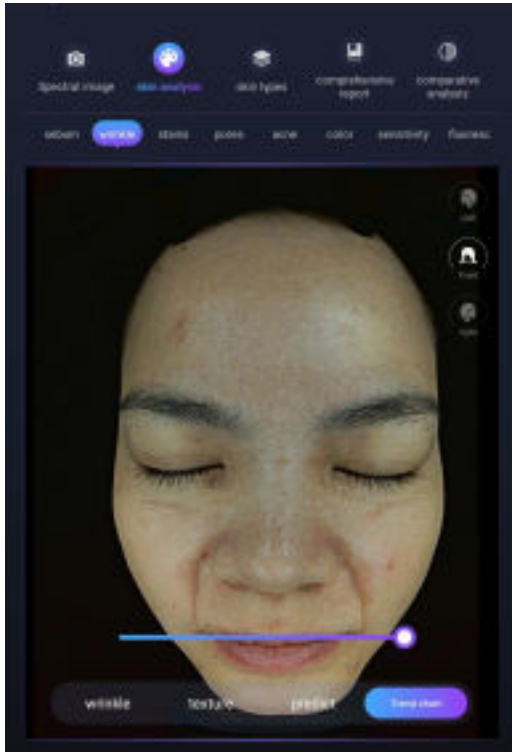
Software introduction - aging trend chart



Nursing predictive chart



Skin Status Map



Aging trend chart

皮肤水份检测（出厂标配）

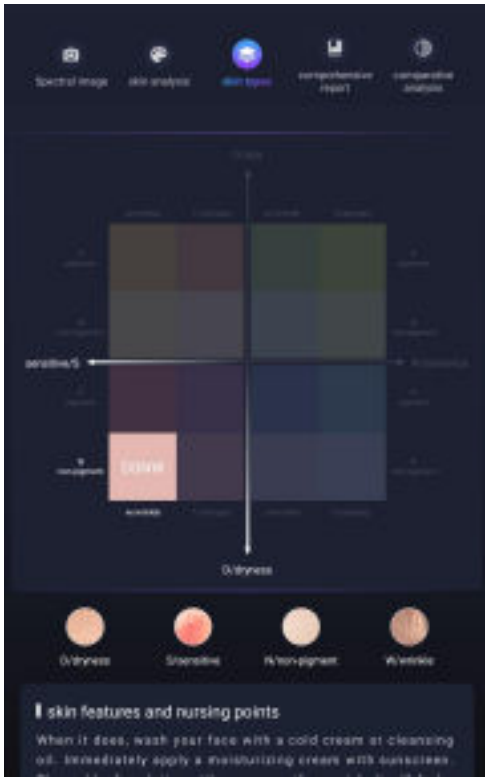
Skin moisture detection principle:

Based on bioelectric impedance measurement technology(BIMT),This technology is the use of biological tissue and organ electrical characteristics (impedance, guided, dielectric constant, etc.) and its changes.A non-damage detection technique for extracting biomedical information related to human physiology and pathological conditions.The change in moisture content of human skin will cause changes in impedance characteristics (especially compass).Therefore, this principle can be taken, we can detect the impedance characteristics of local skin by electronic measurement techniques, so as to reflect more and less.

Skin moisture detection method:

Using the dual electrode contacts the skin formation loop, a high frequency small signal is applied as an excitation source at one end, and the other end collects a micro current signal as the receiving end.The impedance parameters of the skin region were obtained by analysis of the weak signal, and finally the moisture content was obtained according to the proposed algorithm.

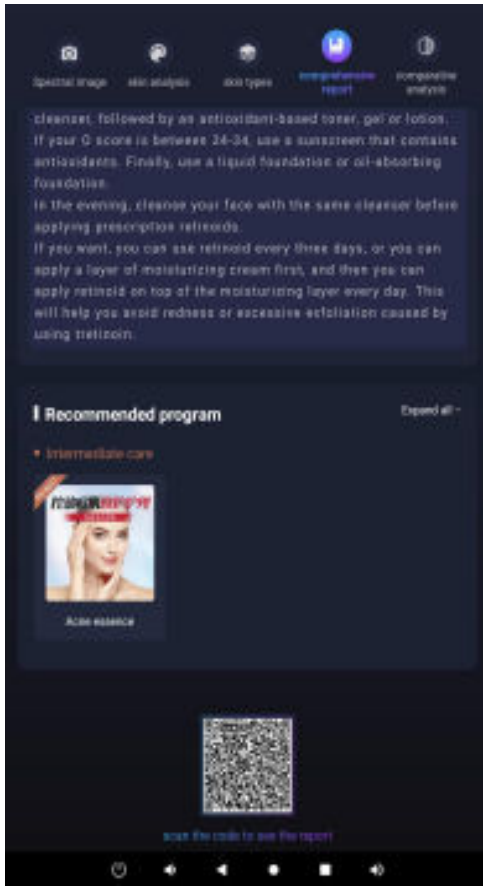
Domestic first use Baumann skin classification



Baumann skin classification:

The first skin detector in China to use Baumann skin classification to quantify skin problems for different races of yellow, white, and black people,For 8 major skin layouts in accordance with Chinese people, they are quantified as models.(Dry/Oily、Wrinkle prone/Tight、Sensitive/Resistant、Pigmented/Non-pigmented),Reach precision diagnosis, precise treatment effect.

Comprehensive report analysis



Comprehensive indicator:

Each indicator is a distinction between the five colors obtained by the AI algorithm, and the level of the problem, the problem of the skin indicator, and the main care.

Comprehensive Summary:

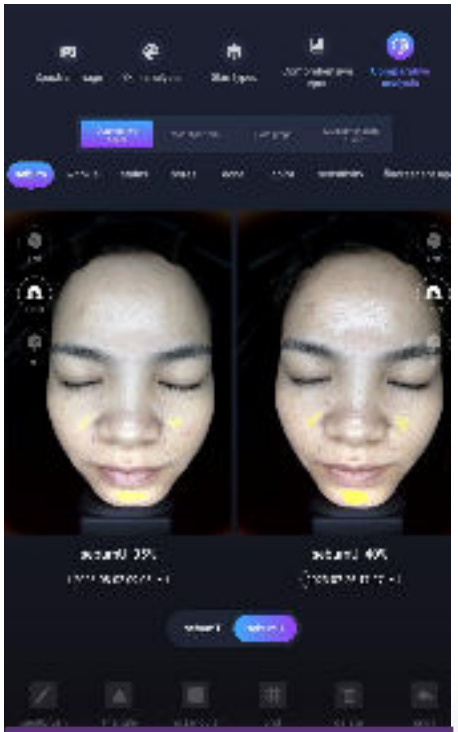
Through Baumann skin classification, the skin is quantified, and the results and text are quantified according to the specific skin status of different L, and the skin care recommendations and corresponding product recommendations are given.

QR code report:

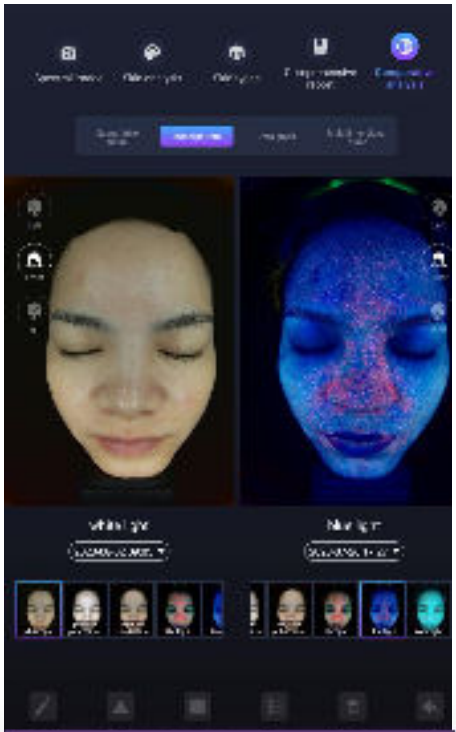
Support WeChat, QQ, webpage, etc., get a neutral skin report page, and each indicator page can be smart to switch.

Comprehensive comparative analysis

Quantitative figure | model pattern | Data graph | Multidimensional graph

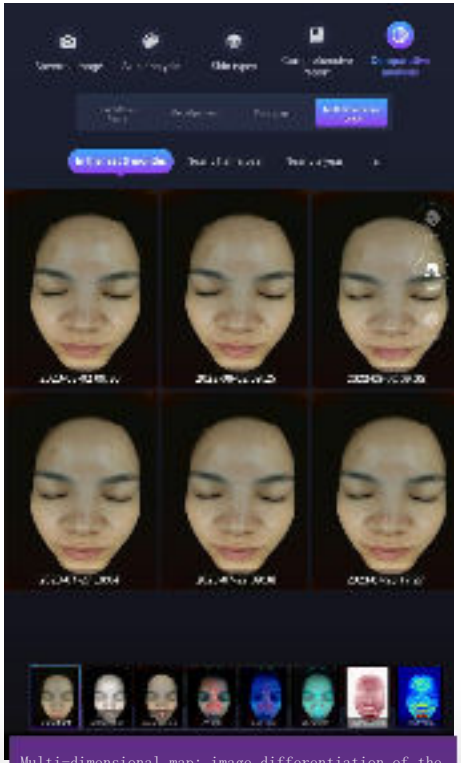


Quantitative figure: Percentage differentiation of each indicator and quantization data in different times



Mode pattern: Differentiation of the surface spectrum of different time periods and deep spectrum

Data diagram: Differentiation of the efficacy of the overall skin care of different time periods



Multi-dimensional map: image differentiation of the efficacy of the overall skin care of different time periods

03

Product advantages

All-round advantage analysis

01 US imports 48 million pixels surround industrial grade cameras, 180-degree automatic collection of skin images

02 Intelligent switches two camera patterns, based on demand, autonomous, all-round, left face, positive face, right face)

03 Multi-spectral imaging technology, from 9 dimension from the surface to deep quantitative skin 18 problem indicators

04 The cloud storage can store massive pictures, flat-panel damage or loss is not afraid of customer data loss

05 Cloud upgrade, software regular free upgrade

06 The first domestic use of intelligent blue disinfection, 5 seconds automatic sterilization

07 Intelligent positioning last photo fumes, carry out two coincides, ensure the accuracy of the image data analysis

08 A variety of comparative analysis modes, quantitative map (intuitive quantization data contrast), mode diagram (different spectral diagram comparison), data graph (observation of nursing changes at any time), multi-dimensional map (observation of treatment after treatment)

09 The first domestic skin is used in the skin, accurately quantifying skin problems, achieving accurate diagnosis, precise treatment levelc

10 Artificial intelligence Ai simulates pox, sensitive, stains, aging trends, accurate prediction of the next 5-10 skin trend

04

Product configuration

Dermatology of the skin analyzer - Q2 version

Picture	Configure	Quantity
	Host	1
	Host power cord	1
	3.0 USB cable	1
	Shortlight	1
	Water pen	1
	21.5 inch plate	1
	21.5 inch flat panel power cord	1

THANKS

Thanks for watching

EBS medical Finland * Korvenrannantie 25 A 30 * 04320 Tuusula - Finland * Y-tunnus: 3427432-5
Phone: (+358) 45 3402360 / E-mail: infofinlanmd@ebs-medical.com / WEB: www.ebs-medical.fi