Q-Switched Nd:YAG Laser

IDS LTD
Innovation for better life

Specification

Normal Mode

Wavelength	532nm	1064nm (Single)	1064nm (Double)	1064nm (Genesis)
Pulse Duration	5-6ns	5-6ns	5-6ns	330us
Pulse Energy	50-500mJ (0.1-$15.9J/cm^2$)	100-1000mJ (0.1-$31.8J/cm^2$)	100-1800mJ (0.1-$57.3J/cm^2$)	100-4500mJ (0.1-$143.3J/cm^2$)
Frequency	1-10Hz (Adjustable 1Hz)	1-10Hz (Adjustable 1Hz)	1-10Hz (Adjustable 1Hz)	1-10Hz (Adjustable 1Hz)
Spot Size	2-10mm (Adujustable 1mm)	2-10mm (Adujustable 1mm)	2-10mm (Adujustable 1mm)	2-10mm (Adujustable 1mm)

Graphic User Interface

- 532/1064/GENESIS

Graphic User Interface

- Uni-Q Mode for 532/1064/GENESIS

Features of competitive advantages-1

- It is designed ergonomically.
- It is possible to perform a precise treatment only by the handling of the auto zoom hand piece.
- It is upgraded to feature a homogenous beam profile.
- The state-of-the-art beam mode is now employed(Top hat mode).
- A soft peeling is possible to bring out a skin whitening effect.
- It is cost-efficient in its maintenance and is of better quality than those of other competitors.

Features of competitive advantages-2

- The treated spot is quickly recovered, it consumes less time to perform an operation, and it has no adverse effects.
- The short pulse width can reduce pain during the treatment.
- The equipment of a latest cooling system enables a long use.
- A shutter device is eqipped inside for safety.
- The equipment of a guide beam enables operator to radiate easily the laser beam on the spot to be treated.
- It’s handling is simple and easy.

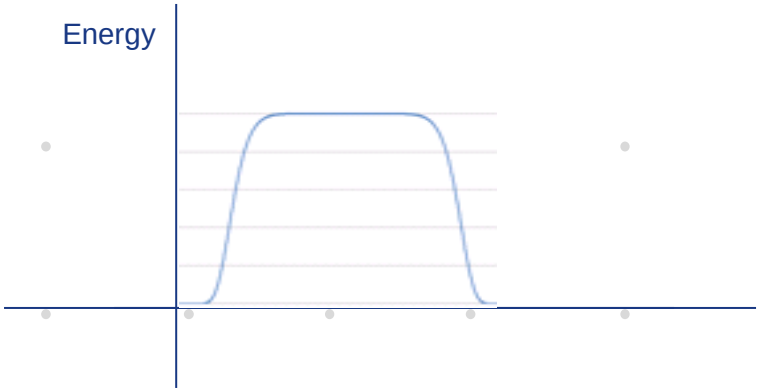
Our Beam Mode-1

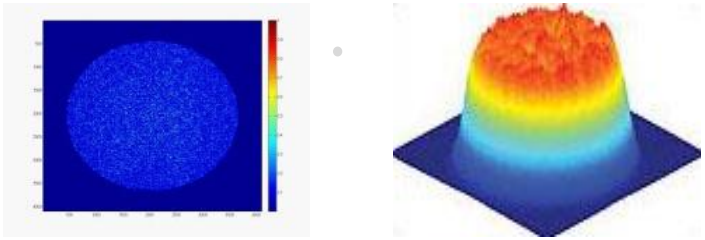
- Top Hat Mode?

  Top Hat Mode Beam provides that evenly energy can be irradiated at targeted skin area.

  It makes fast treatment possible and can minimize skin damage.

Top Hat Mode

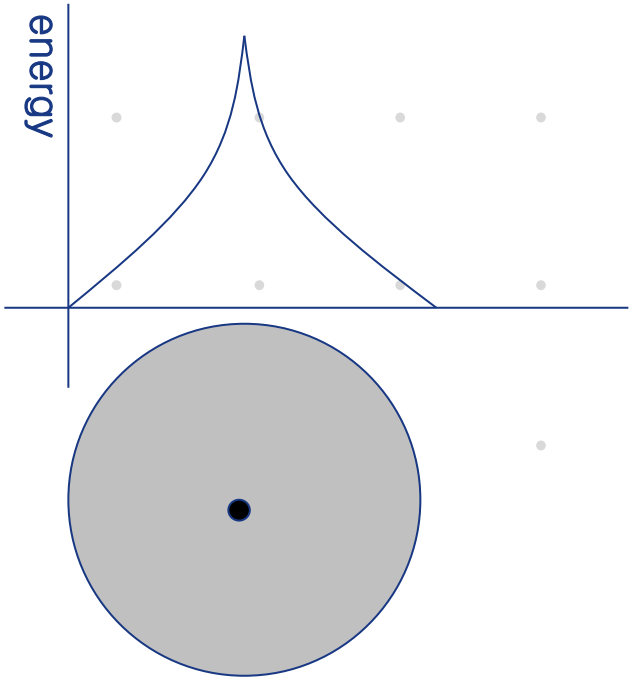




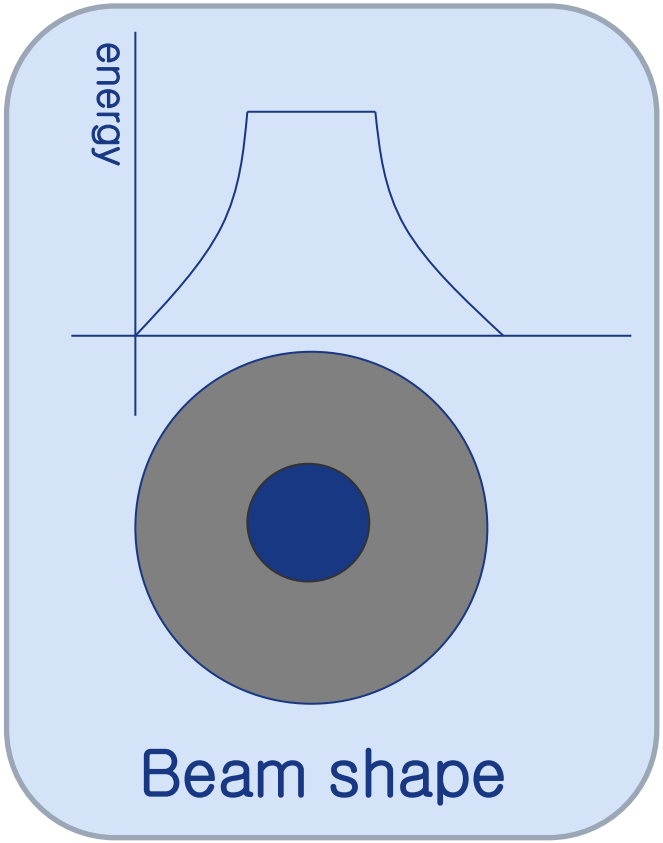
Beam Shape

Our Beam Mode-2

Gaussian mode

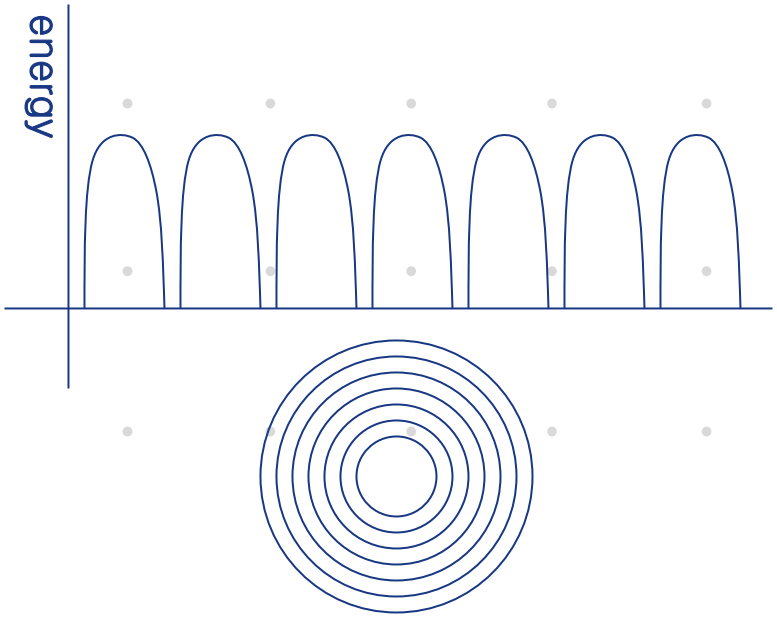


Top hat mode(Smartrion Q)



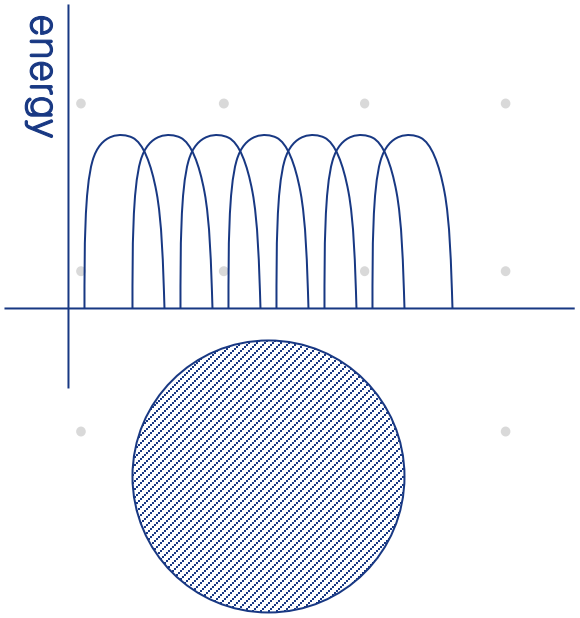
Our Beam Mode-3

V.R.M Mode



Beam shape

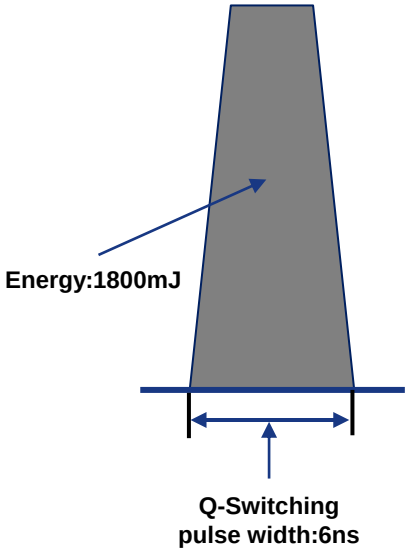
Multi Mode

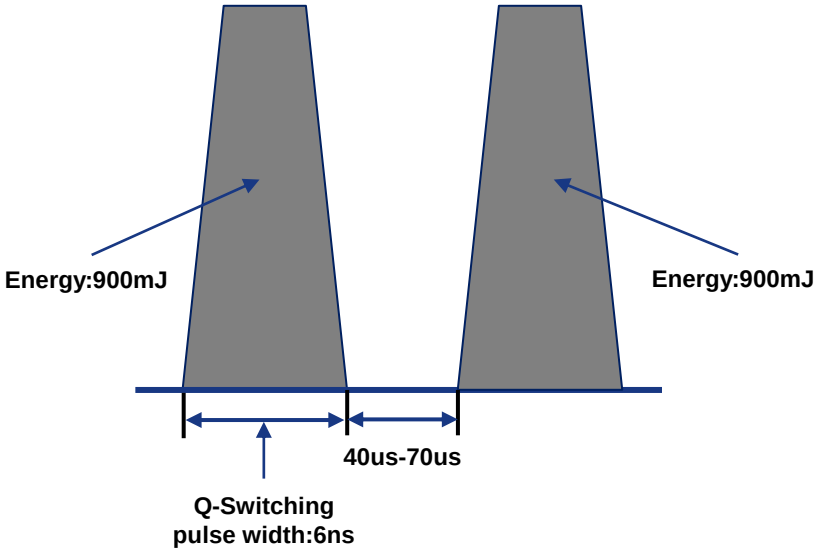


Beam shape

Explanation of Dual Pulse 1.8J

- Smartrion Q supports to activate consecutive dual pulse and maximum energy of 1.8J (Normal mode) is available
  - Dual Pulse 10Hz = Practically 20Hz d/t Dual Pulse





- Strong energy (1.8J) is transmitted at once, which can damage skin. Since less energy is delivered to the skin than PTP, the photothermal action required for collagen regeneration is low.

- At the same time, twice as many laser beams are delivered as if they are massaged, delivering more energy and vibration to the melanin pigment to be destroyed, while promoting the collagen regeneration of the dermis layer through a higher photothermal effect .

APPLICATIONS

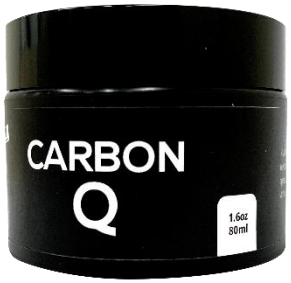
- Tattoos Removal
- Soft peeling
- Vascular lesion Removal
- Nevus of ota
- Leniginosis
- Freckle
- Wrinkle
- Café au lait
- Tattoo on eye brow

Accessories

① Hand Piece

② Protective Goggles

③ Carbon Cream



④ Eye Shield

What is softpeeling

- **Summary**
  As exclusive for peeling, softpeeling is a particular laserpeeling method, spreading the manufactured carbon cream and making use of 1064 wavelength with short pulse (6-8ns).

- Effect
  ① Lighting Q-Switched laser on the skin in order, it normalizes the over-keratinization by removing the horny layer of the cuticle

  ② Promoting regrowth of collagenous fiber and elastic fiber of the dermis

  ③ Improving the skin aging by removing keratin and impurities on the surface of the skin.

  ④ At the same time to make the melasma and the mote thin, it is effectively used to fine wrinkles, acnes, and pore contraction.

Softpeeling(Carbon peeling) Process

- At the intervals of 2-4 weeks, it is a treatment method concentrating the laser ray into the deep skin to stimulate and induce the collagen layers by performing 3-4 times repeatedly.

- 1st : spreading the fine particle carbon lotion on the whole treatment area, clean the remaining carbon cream in 10-15 minutes.

- 2nd : after adopting an optimum energy, shoot laser for 2-3 passes equally on the carbon cream sprayed area, so that thermal effect of the carbon cream absorbing laser can be delivered into the deep skin.

- 3rd : the process like this is to help young and new skin regrow because the skin Horny layer was equally removed through the instant explosion of the carbon particle.

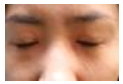
- 4th : the area with wrinkles or expanded pores produces additional remodeling effect of the inner skin by repeated lighting through enhancing the parameter.

Application of soft peeling

- When you want to maintain an elastic skin
- When you want to have a bright and clear skin
- When you want to remove liver spots, fine wrinkles, lentigos etc.
- When you want to tighten the skin pores
- When you want a treatment that brings out a quicker effect

The soft peeling can maintain its effects for about a month, with variations from the types of the skin. The treatment time is very short; so a patient can go back to normal daily routine next day and also wear makeup.

Treatment Parameters(532nm, 1064nm)

Lesion	Picture	Wavelength (nm)	Fluence (J/cm^2)	Energy (mJ)	Frequency (Hz)	Spot Size (mm)	Total sessions
Tattoo (Black, Blue, Brown)		1064	5.5	700	4-6	4	3-5
Toning (With carbon cream)		1064	1.0	800	4-6	10	4-5
Soft Peel Fine Wrinkle		1064 Genesis	3.1	1200	4-6	7	4-5
Nevus of ota		1064	7.9	1000	4-6	4	4-6
Abnom		1064	9.9	700	4-6	3	3-5
Eye Line		1064	4.2	300	4-6	3	1-3
Blue Nevus		1064	12.7	900	4-6	3	2-4
Eye Brow		1064	4.7	600	4-6	4	1-3
Speckled Nevus (Big size)		1064	11.3	800	4-6	3	4-5
Tattoo (Red, Purple, Orange)		532	0.7-1.1	100-150	3-5	4	4-6

Treatment Parameters(532nm, 1064nm)

Lesion	Picture	Wavelength (nm)		Fluence (J/cm^2)	Energy (mJ)	Frequency (Hz)	Spot Size (mm)	Total sessions
Lentigo		532		0.5-0.9	75-125	3-5	4	1-3
Cafe Au Lait Spot		532		0.7-1.1	100-150	3-5	4	4-6
Seborrheic Keratosis		532		1.0-1.7	75-125	3-5	3	1-3
Hyper-Pigmentation		532		0.5-0.9	75-125	3-5	4	1-3
Speckled Nevus (Small size)		532		0.5-0.9	75-125	3-5	4	3-5
Freckle		532		0.5-0.9	75-125	3-5	4	1-3
Melasma		1064		2.0	800	4-6	7	3-5
Fine Hair Bleaching		1064		2.0	800	5	7	1
Nail Fungus		1064 Genesis		7.9	1000	5	4	3-5
Age Spot		1064	Skin Type 1-3	14.1	1000	1	3	1
			Skin Type 4-5	10.6	750			

How to use genesis mode

- How to use genesis Mode
  1) Before using the genesis mode, please put carbon cream on the face superficially and wait up to 5-10 minutes to dry the carbon slightly.
  2) It is recommended to use as 7-8mm spot size with approx. 2.0-2.5 J/cm^2 and laser beam is needed to deliver in a single pass, minimal overlapping to the skin which is covered by carbon cream .
  3) The reason of single pass or minimal overlapping is to prevent excessive heat transferring to the skin.
  4) The pulse duration of genesis mode is 330us and it can make heating carbon creams and it will make thermal effect in the skin and skin cell re-generation.
  5) These effectiveness can also improve the appearance of acne, acne scar and wrinkles.

- Remark
  1) This genesis mode should never be used for the treatment of melasma due to heat will exacerbate pigmentation and make lesions more darker.
  2) After finishing the treatment in the genesis mode, please change “Normal Mode(1064nm)” finally and please remove the carbon cream completely through “Normal Mode(1064nm)”.
  We recommend you to use the Normal Mode with 7-10mm spot size.(Fluence : 1.82-1.99J/cm^2)

Treatment Parameters(Normal + Genesis)

- Skin Type(1-3)

Application	Mode	Wavelength	Setting Value		Pass
- Acne - Inflammatory Acne - Wrinkles	Genesis	1064nm	Spot Size	7-8mm	Only Once (No overlapping)
			Energy	800-1200mJ	
			Fluence	2.08-2.38J/cm^2	
			Frequency	1-2Hz	
	Normal	1064nm	Spot Size	7-10mm	2-3 times (Carbon cream should be removed cleanly)
			Energy	800-1000mJ	
			Fluence	1.99-2.08J/cm^2	
			Frequency	4-5Hz	

- Skin Type(4-5)

Application	Mode	Wavelength	Setting Value		Pass
- Acne - Inflammatory Acne - Wrinkles	Genesis	1064nm	Spot Size	7-8mm	Only Once (No overlapping)
			Energy	700-1000mJ	
			Fluence	1.82-1.99J/cm^2	
			Frequency	1-2Hz	
	Normal	1064nm	Spot Size	7-10mm	2-3 times (Carbon cream should be removed cleanly)
			Energy	700-900mJ	
			Fluence	1.24-1.82J/cm^2	
			Frequency	4-5Hz	

Dye Hand Piece(Optional)

- **585nm Hand Piece**

- The wave length 585nm Laser is very effective to treat for pigments and vascular lesions.
- With this good hand piece, by treating the pigments on the epidermis, vascular lesions and marks left by acne, the skin can be whitened and more beautiful.
- Present Laser Toning cannot prevent the relapse of pigmentation because it cannot remove the cells of melanin which cause the pigmentation. But this Dye Hand Piece, by curing abnormal blood vessel not to activate the cells of melanin, can permit almost no relapse.
- APPLICATIONS
  - VASCULAR TREATMENT
  - FLUSHING
  - MELASMA
  - POST ACNE

Dye Hand Piece(Optional)

- **595nm Hand Piece**

- Almost same effect such as 585nm.
- But due to its lower absorption in melanin,
- 595nm might be slightly safer than 585nm.
- So 595nm minimizing potential side effects such as PIH.

- Acne
- Removal of minor vascular lesions
- Facial flushing
- Erythema post-treatment with laser
- Post-acne erythema

Dye Hand Piece(Optional)

- **650nm Hand Piece**

- 650nm Laser is useful to remove pigmented lesions on epidermis because it it not absorbed easily into melanin and hemoglobin. By this character, it can treat the pigments selectively without injuring textures nearby.

- This Laser also very effective to treat kinds of freckles and the recovery time is shorter comparing to 532nm Laser. What the better is very few relapse(including PIH) come out after treatment.

- APPLICATIONS
  - FRECKLES
  - PIGMENT LESIONS

Dye Hand Piece(Optional)

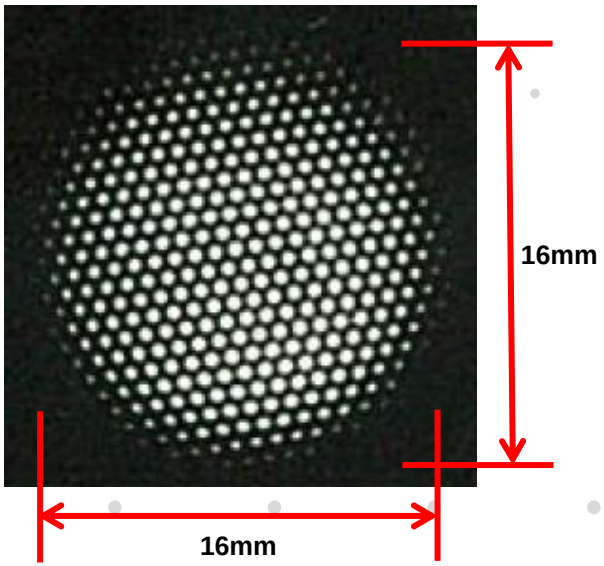
- **660nm Hand Piece**

- Due to its lower absorption in melanin, oxy-and deoxy-hemoglobin,
- 660nm is safer than 532nm for treatment of epidermal pigmented lesions.
- Therefore minimizing potential side effects such as PIH that usually occur as a result of inflammation.

- APPLICATIONS
  - Freckles
- - Other epidermal pigmented lesions

Fractional Hand Piece(Optional)

- High treatment efficacy by deep laser penetrating
- Minimize, Hypo-pigmentation and side effect
- Epidermis sparing during high fluence treatment
- 360 dots in 16x16mm spot size



Before & After

- Acne

  This patient got Carbon peeling with 1064nm, Nomal Mode, Fluence : 0.764J/cm^2, Spot size : 10mm, Frequency : 5Hz in one time.

  The right picture is an operation result that acne was disappeared after 10 days.

Before & After

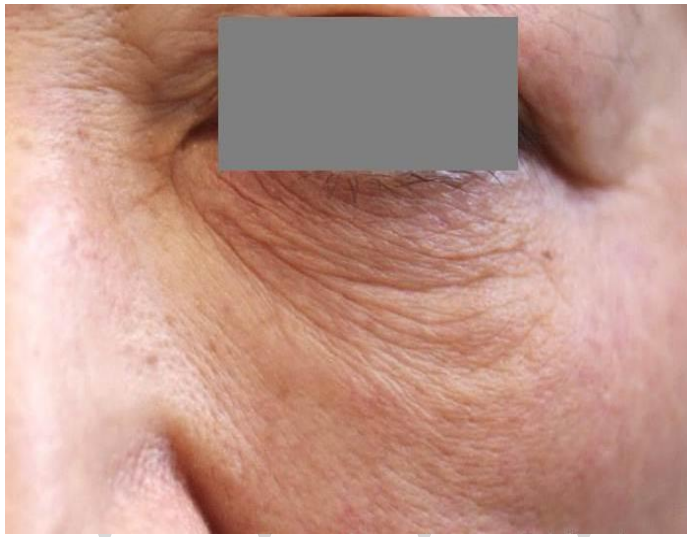
- Pigmentation

  These pictures are the surgical operation result of a patient who has pigmentation got operation with Energy : 50mJ(0.398J/cm^2), Spot size : 4mm, Frequency : 3Hz and 532nm.
  The right picture is an appearance of patient after 15 days.

Before & After

- Winkles

  These pictures are the surgical operation result of a patient who has winkles got Carbon peeling. Every 3 weeks the patient got two operations with Energy : 800mJ(1.019J/cm^2), Spot size : 10mm, Frequency : 6Hz and 1064mm.
  It is good for operated patient to apply serum after operation.



Before & After

- Inflammatory acne

  These pictures are the surgical operation result of a patient who has inflammatory acne got operation with Long pulse mode + Normal mode at the same time. Firstly, applied carbon cream to skin, and then used Energy : 800mJ(2.08J/cm^2), Spot size : 7mm, Frequency : 2Hz and 1064nm(Genesis) mode.
  Secondly, changed from 1064nm(Genesis) mode to 1064nm(Normal) mode and then used Energy : 1000mJ(1.99J/cm^2), Spot size : 10mm, Frequency : 5Hz

Before & After

- Freckle

  These pictures are the surgical operation result of a patient who has freckles got operation with Energy : 50mJ(0.398J/cm^2), Spot size : 4mm, Frequency : 2Hz and 532nm.
  The patient applied serum to skin consistently so skin tone got brighter and pigmentation was reduced.

THANK YOU!