

Ultrasonic B-Scanner

UD-8000

Inspire by Digital

Tomey Corporation

Intuitive & High Resolution



① Intuitive

② Sharply

③ High Resolution

by Fully Digital technology
in ergonomic design.

① Annullar Array Probe

Adjustable focusing by long ultrasound beam

Extra High-resolution
6 Gradual Reception Dynamic Focus

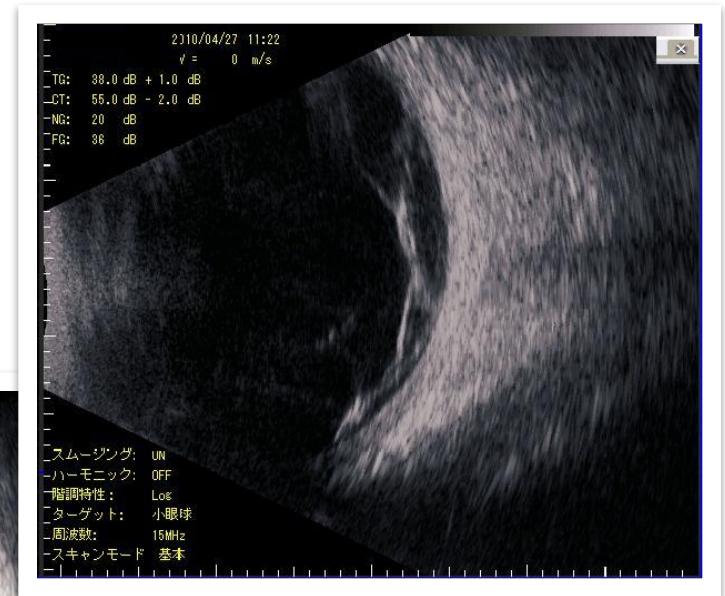
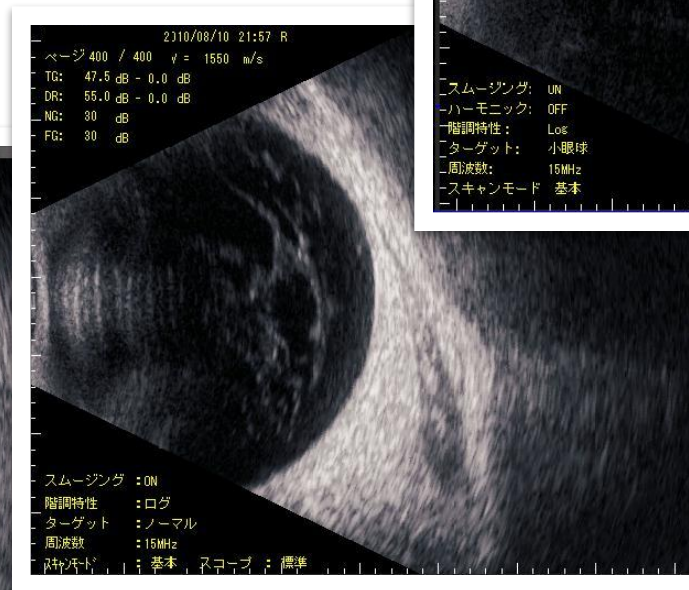
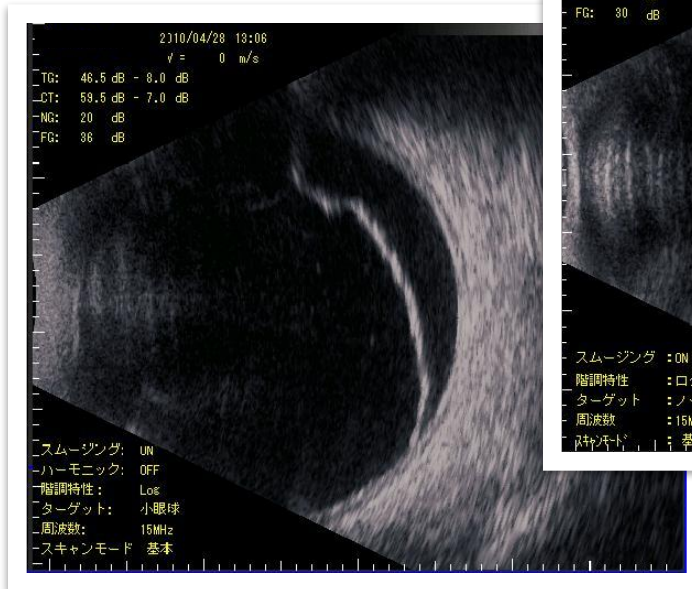
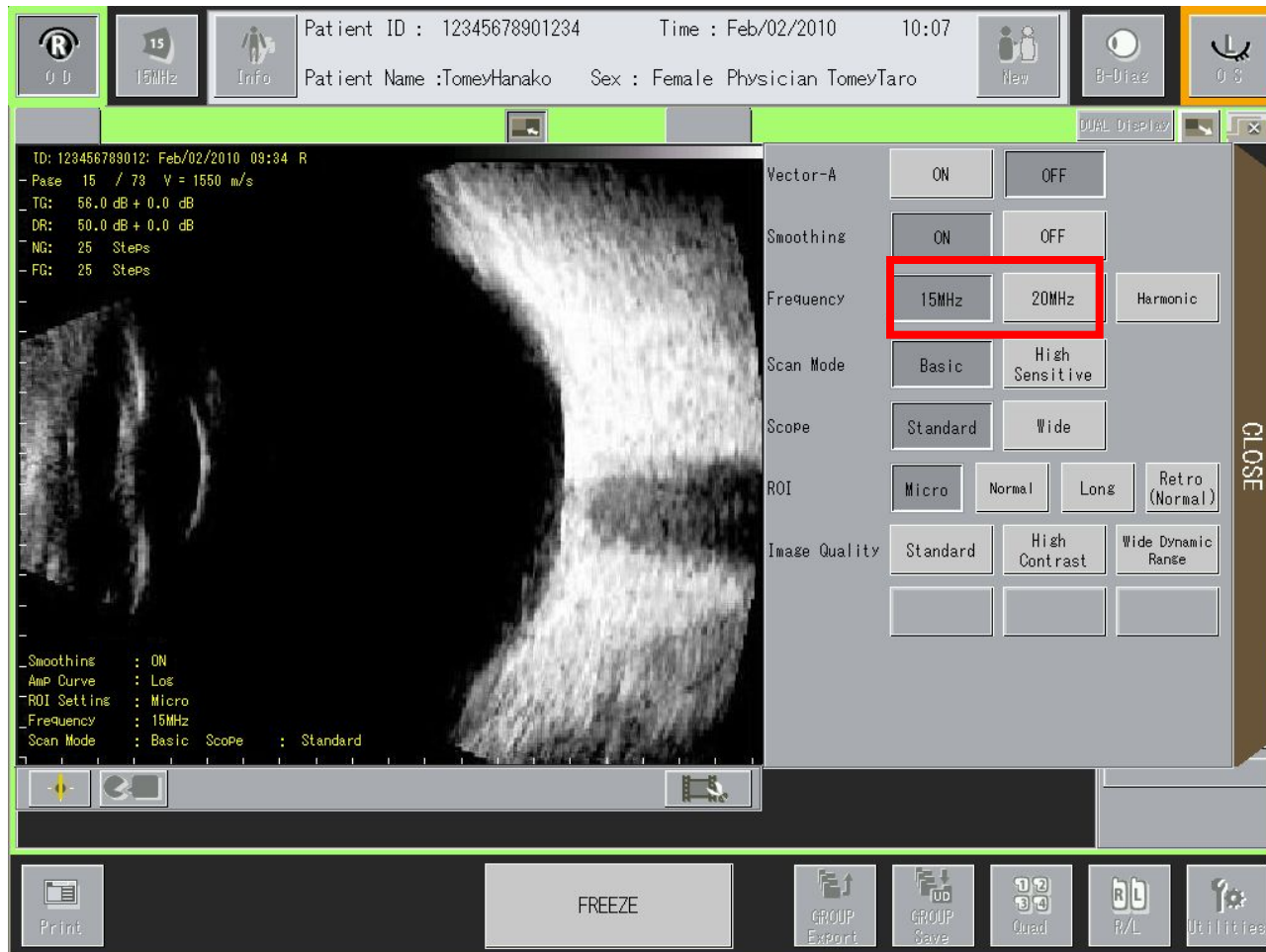


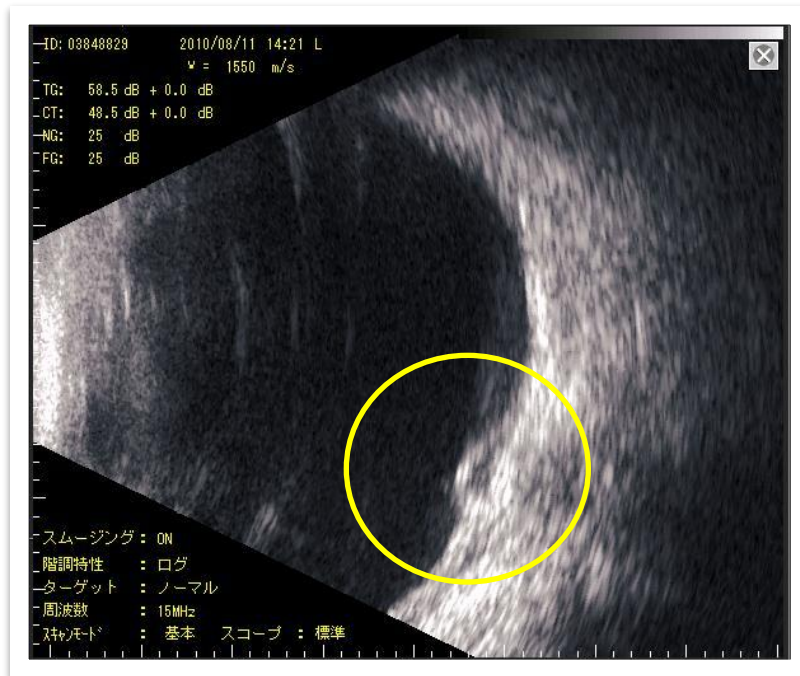
Photo : Courtesy by Fukuoka University, Faculty of Medicine,
Department of Ophthalmology, JAPAN

② 15MHz ↔ 20MHz by one probe



15MHz

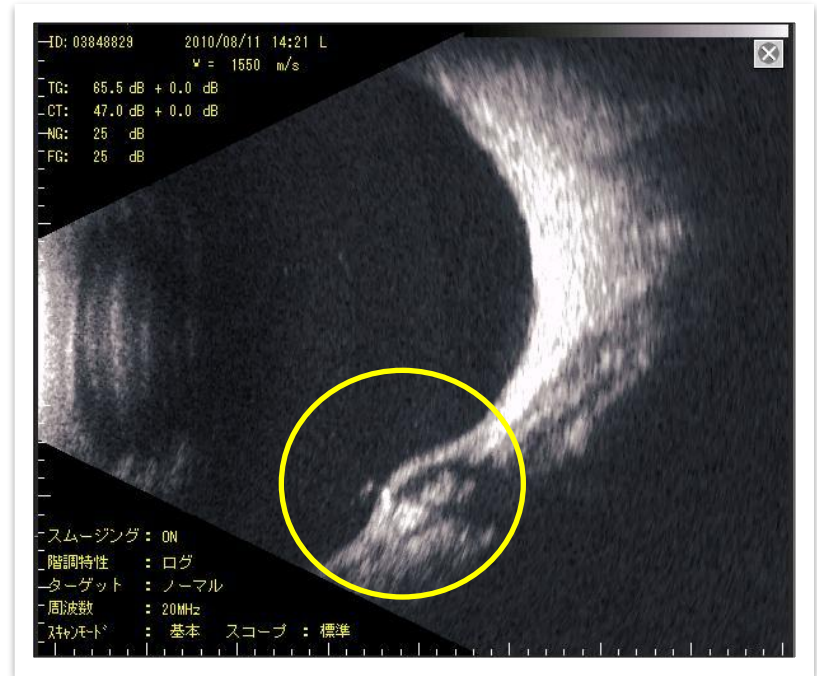
For entirety and Vitreoretinal area
Retrobulbar area observable



15MHz

20MHz

For better Membranous tissue observation
Resolution enhance for Axial Direction
(In a transverse direction on the display)
※ High Frequency
(Both of Transducer and Receive)

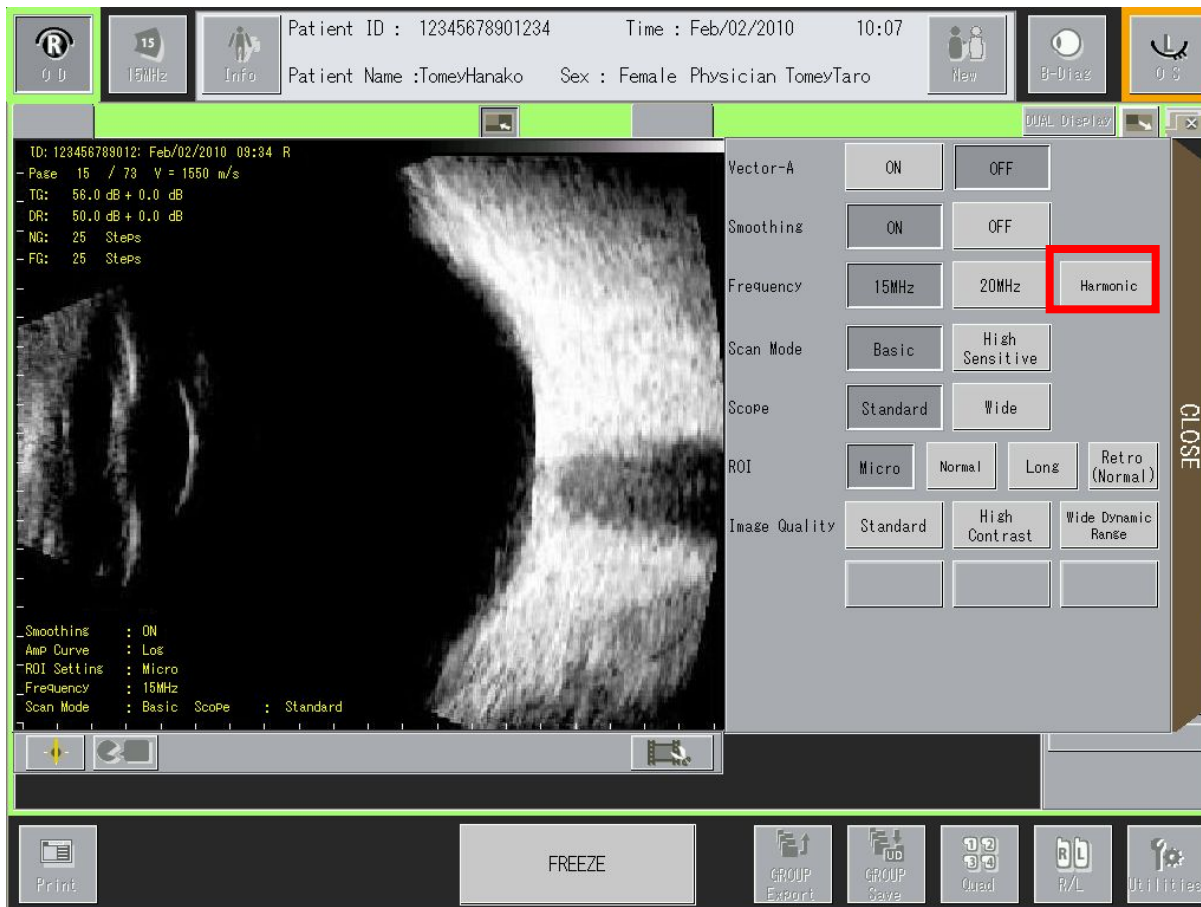


20MHz

③ Harmonic

For Optic disc, Macular area disease and ailments observable resolution enhance for Lateral Direction (In a longitudinal direction on the display)

✘Harmonic imaging can be achieved using a wide bandwidth transducer, which can be respond to both the fundamental frequency. 15MHz and its second harmonic 15 MHz x 2



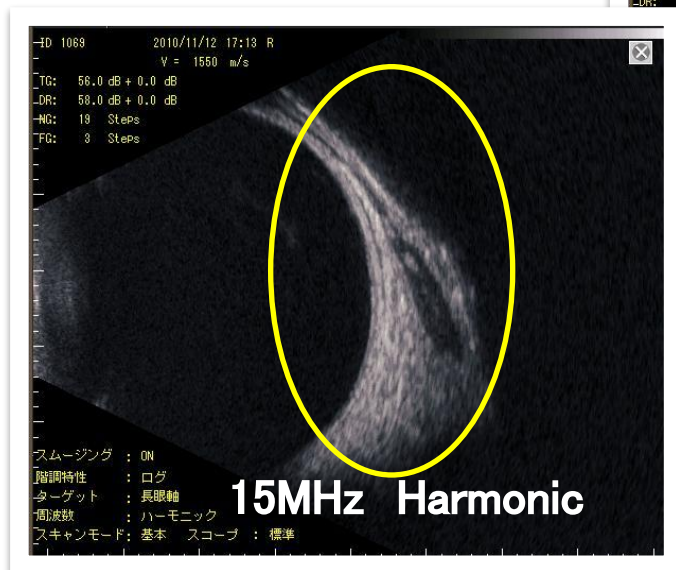
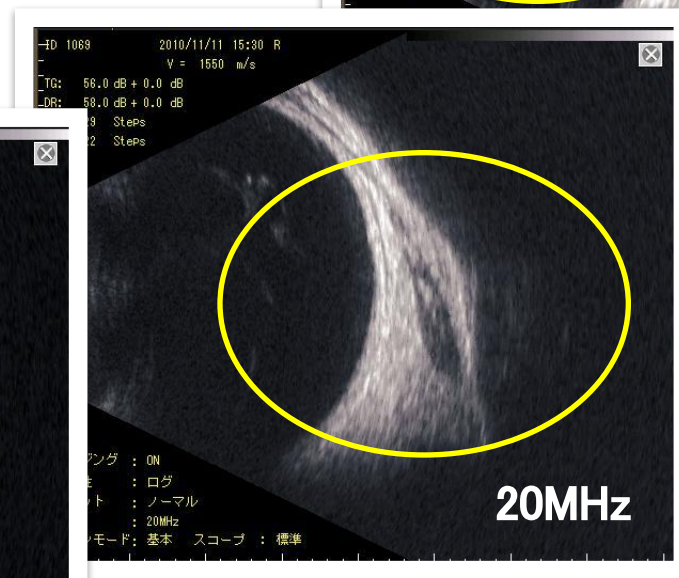
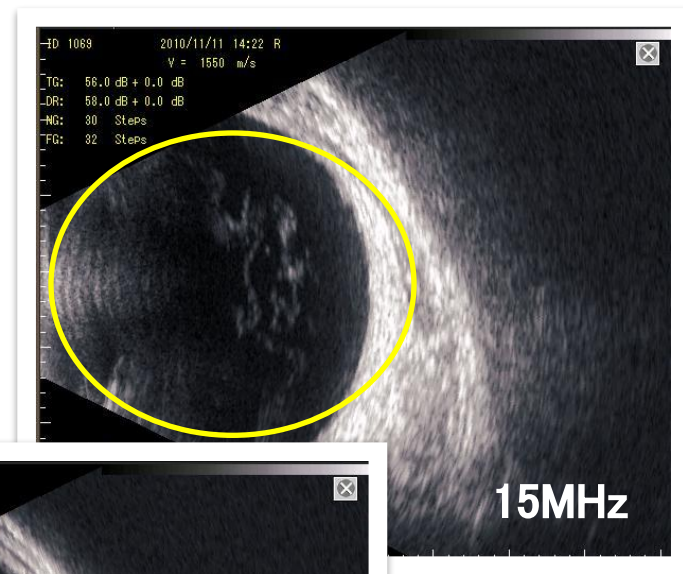
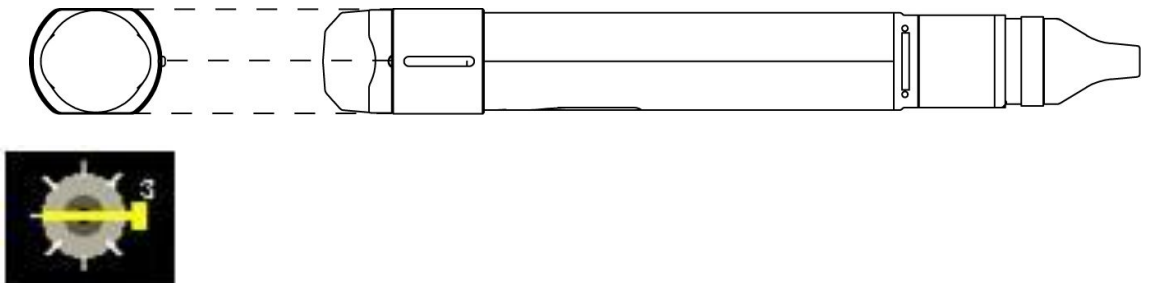
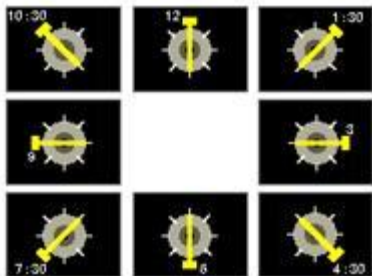
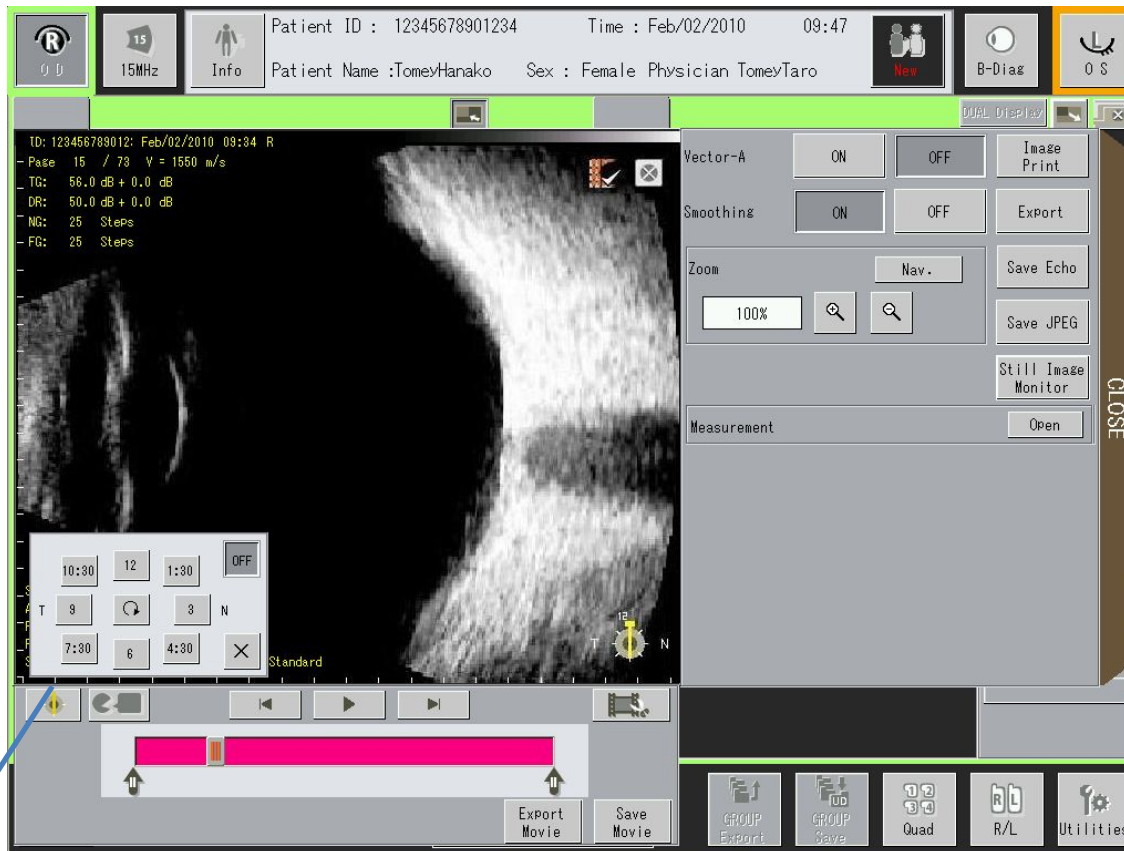
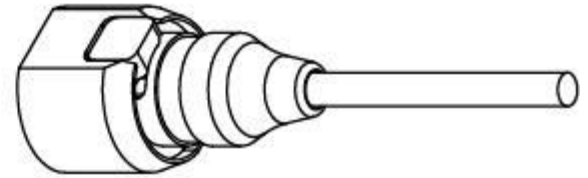
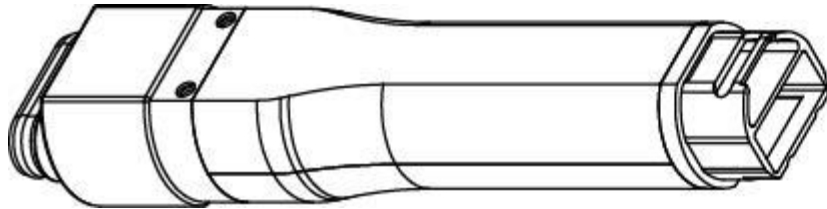


Photo : Courtesy by Fukuoka University, Faculty of Medicine,
Department of Ophthalmology, JAPAN

④ Indicate of probe direction

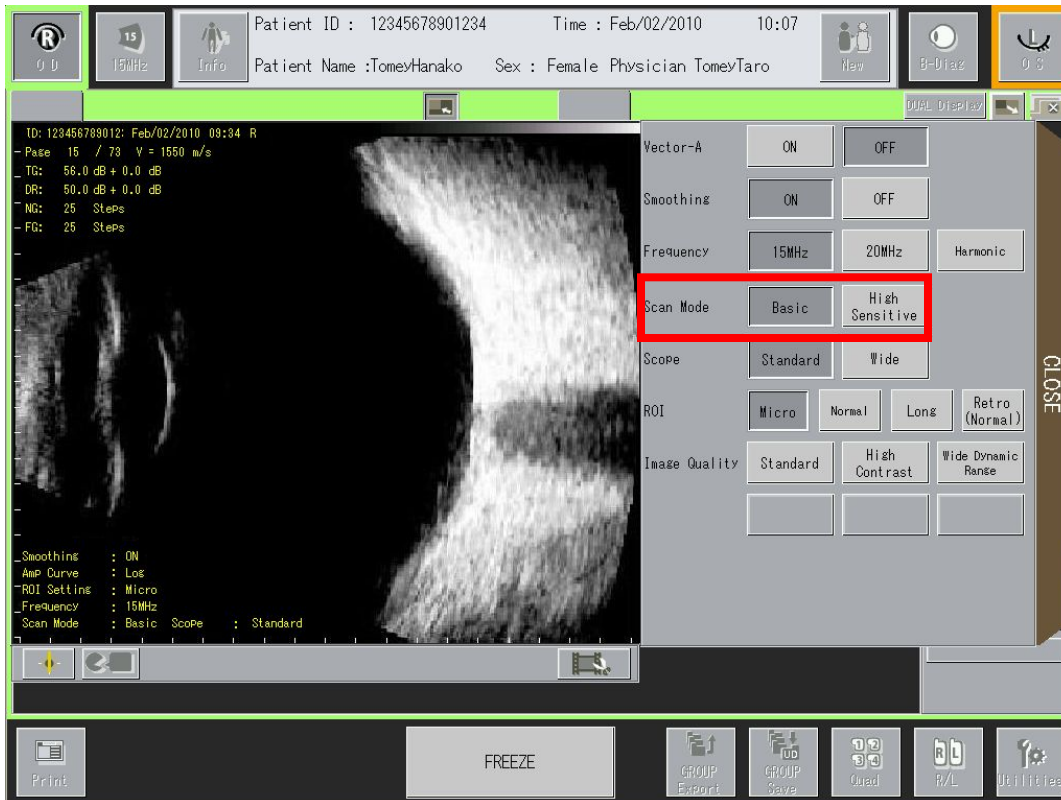


⑤ New designed probe



Function setting

① Scan mode



① Standard mode

② High Sensitive Mode

※ Deduct noise, improve SNR

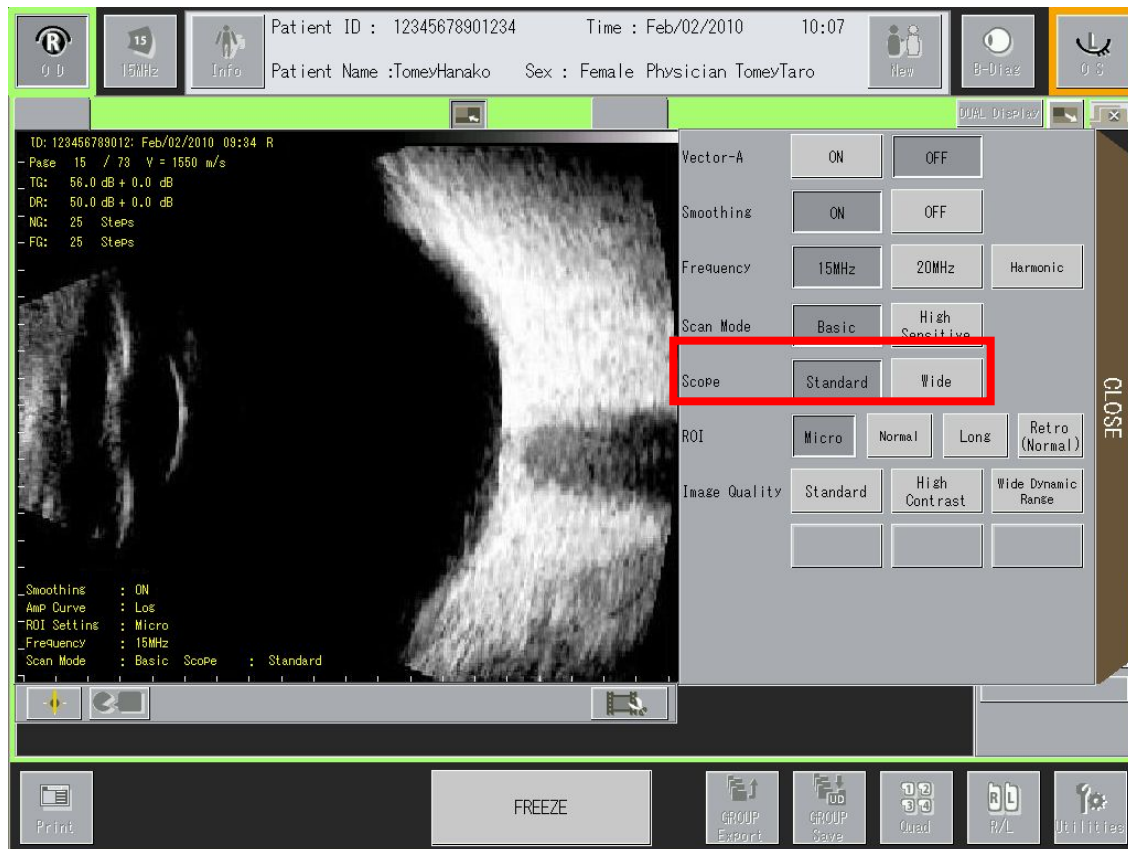
Frame rate]

① Standard mode : 22 Frames/sec

② High sensitive mode :

11 Frames/sec

② Scope (Displayed depth)



Standard → Eye ball

or

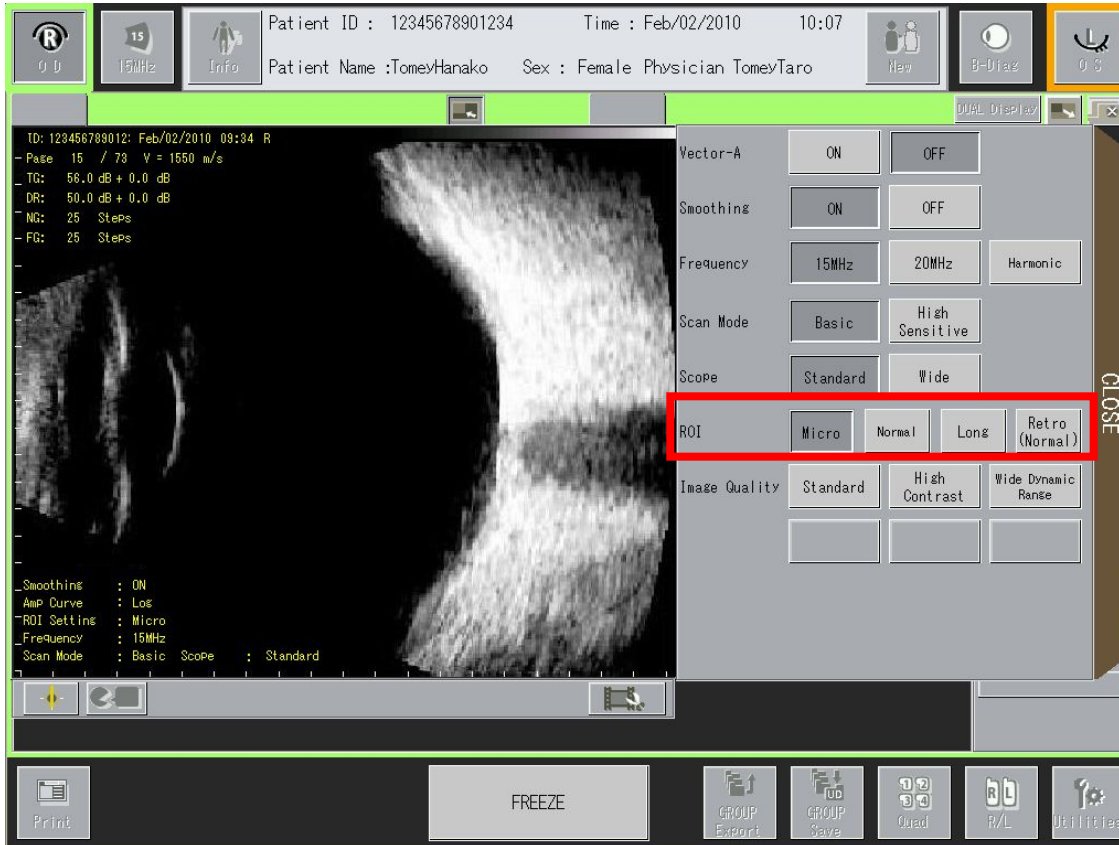
Wide → Orbit

Display Range】

Standard : 42 mm

Wide : 54 mm

③ ROI / Region Of Interest



You can select 4 eye types

Micro (Child)

Normal

Long

Retro (Normal)

B-Axial (Assistance for A-Biometry)



On screen annotation

Select eye type





Versatile Function

① Play back movie

② Zoom

③ Area calculation

④ Dual display

⑤ R/L(OD/OS)

⑥ Smoothing

⑦ Vector A-Mode

⑧ Length measurement

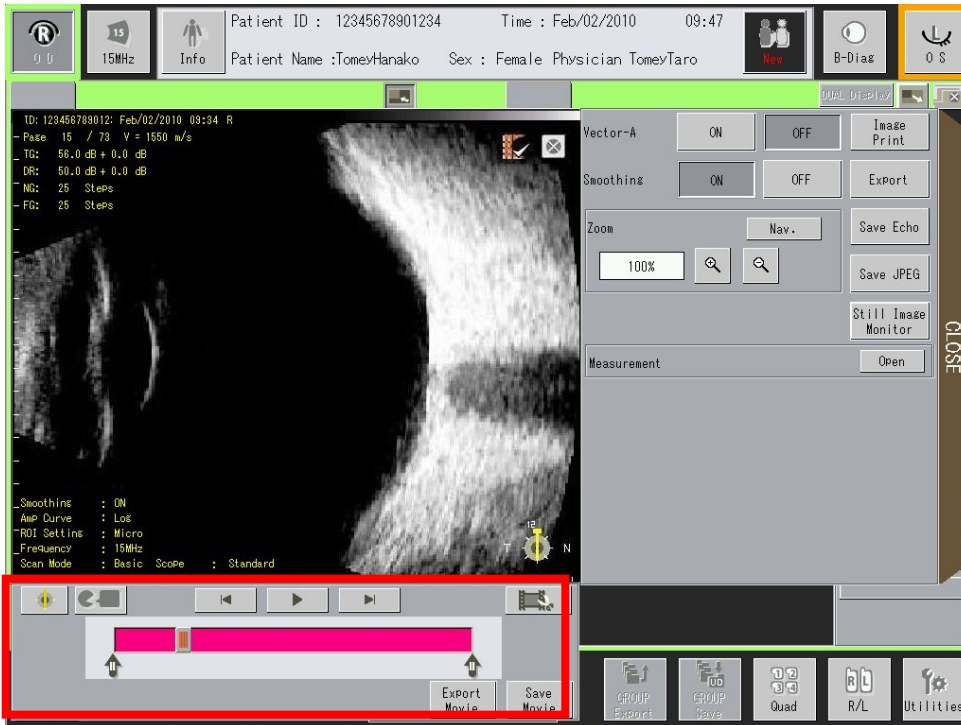
⑨ Angle measurement

⑩ Quad display

⑪ Gain adjustment after freeze

⑫ USB memory

① Movie (Play Back)



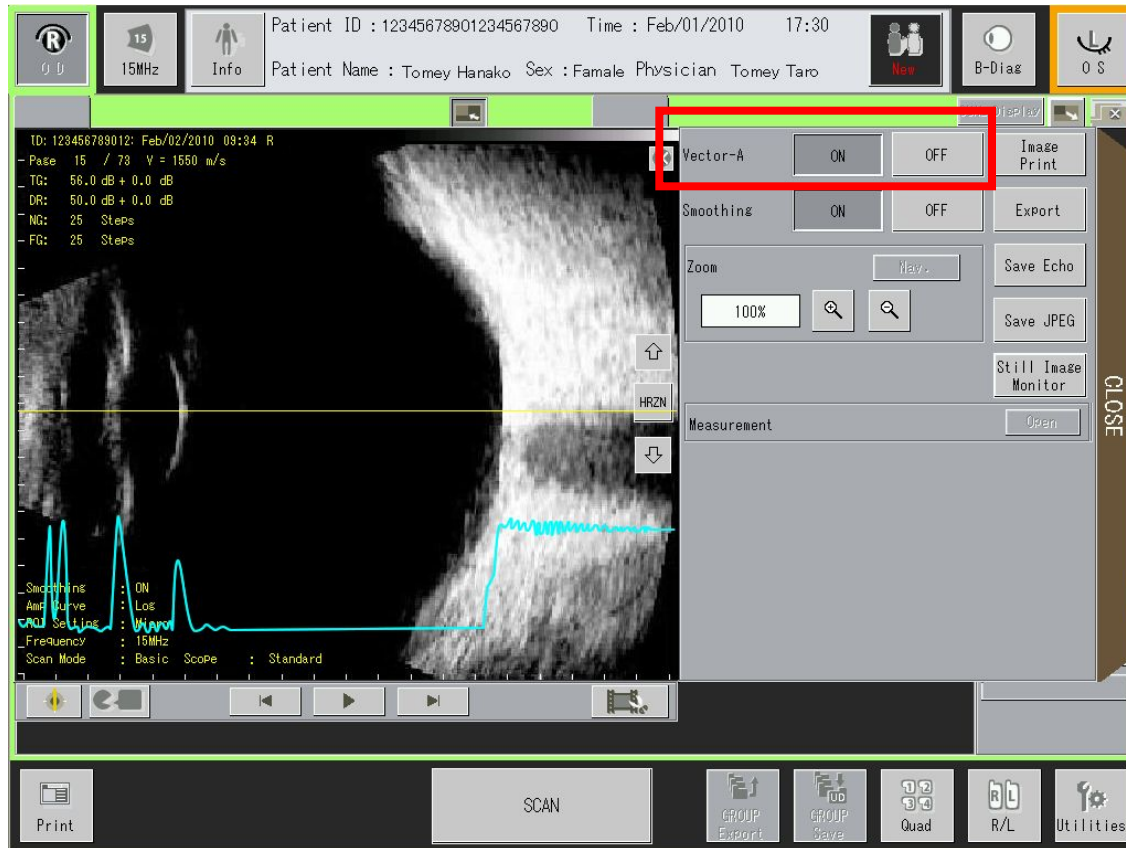
Play back movie by 20 seconds or
400 frames still images.

Cut out still image from movie.

You can customize
cut out image.

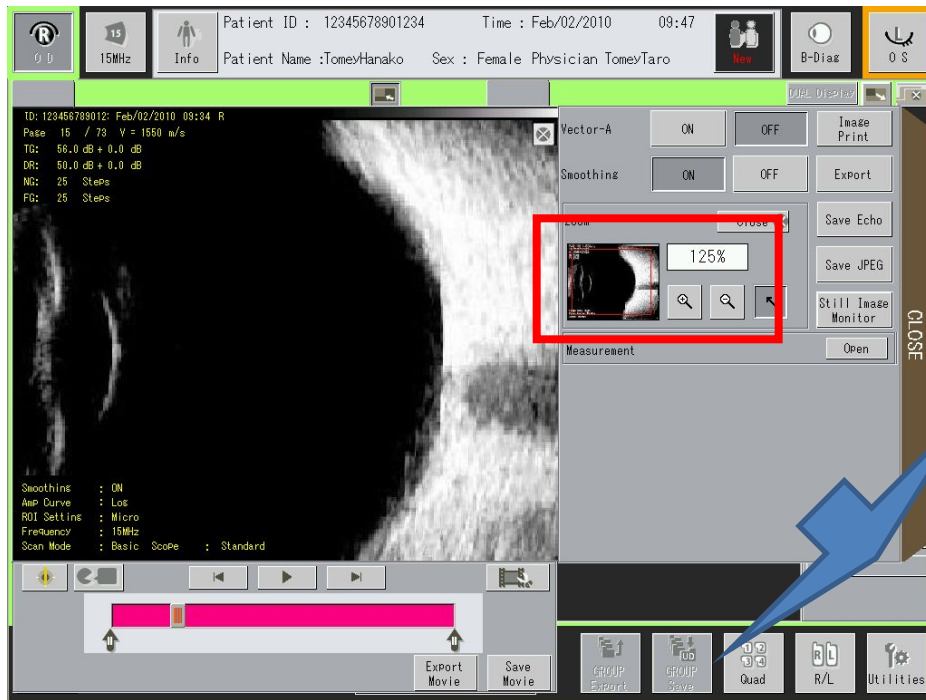


② Vector A-Mode



Temporary A-Biometry
by Compare with pathology
wave form and retina wave
form.

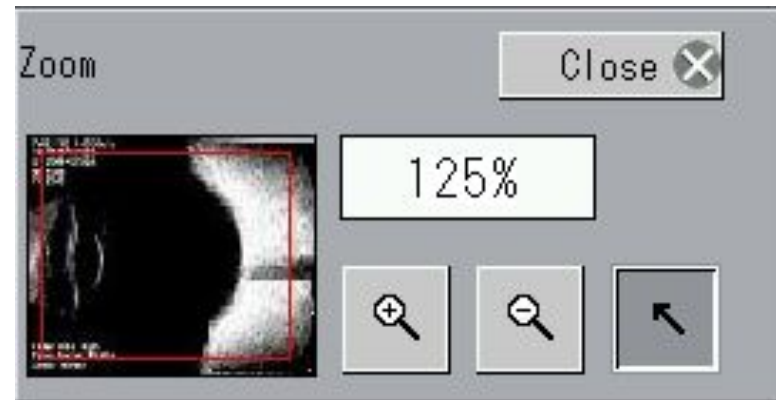
③ Zoom



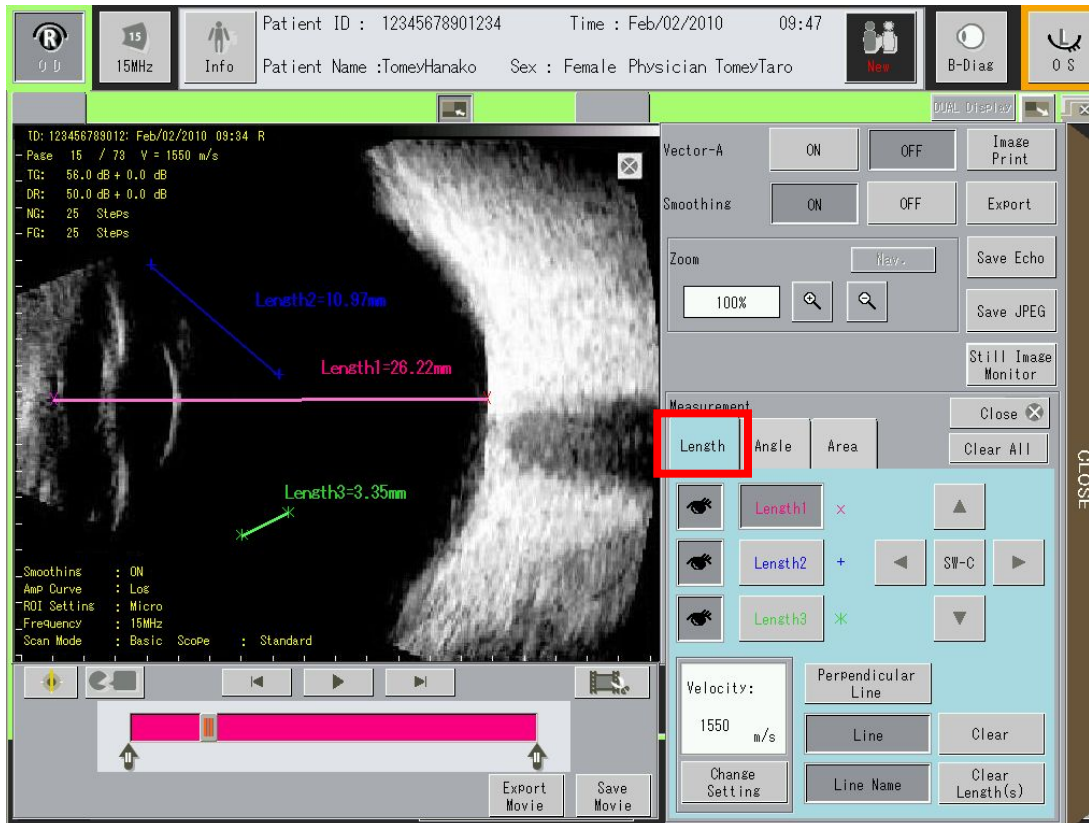
5 steps Zoom

100%, 125%, 150%, 200%, 300%

Intuitive navigation monitor



④ Length calculation



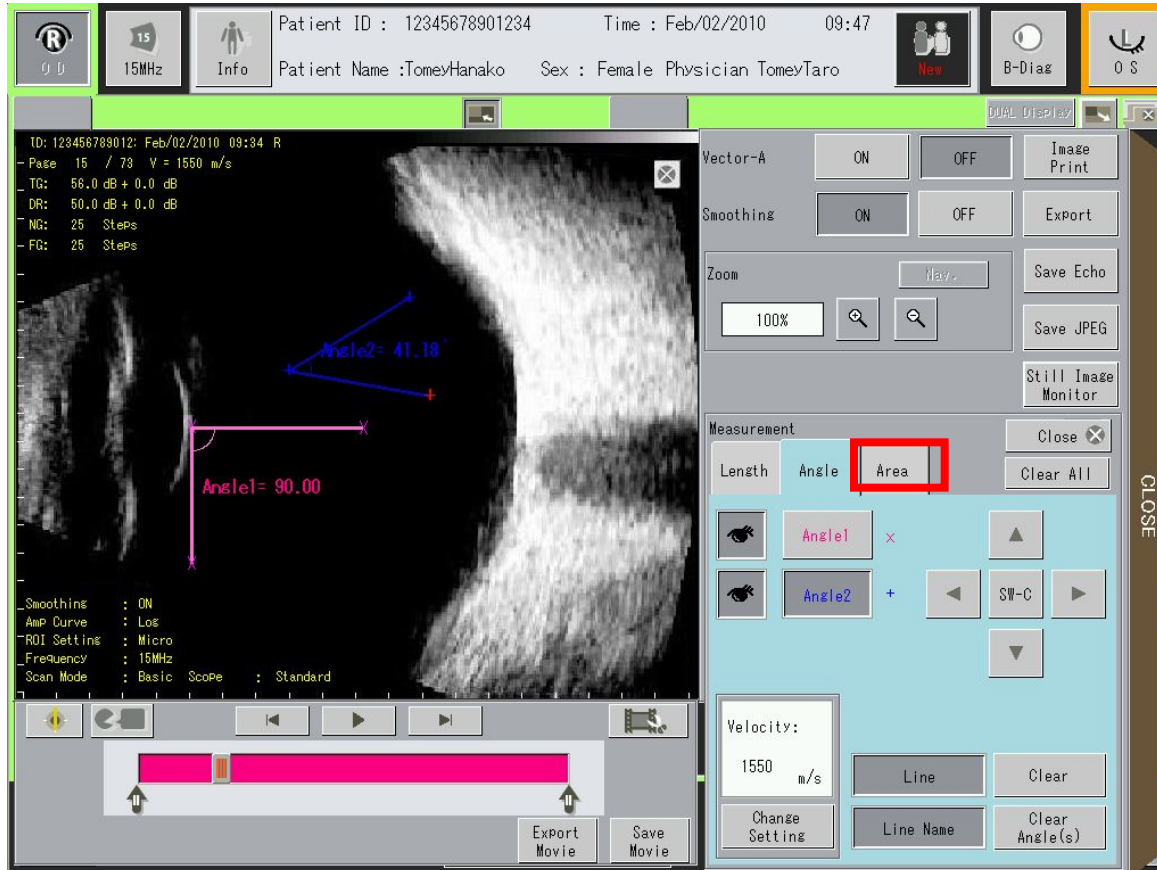
Up to 3 spots on same time calculation

⑤ Area calculation

The screenshot displays a medical ultrasound software interface. At the top, a patient information bar shows: Patient ID: 12345678901234, Time: Feb/02/2010 09:47, Patient Name: TomeyHanako, Sex: Female, Physician: TomeyTaro. The main display area shows a grayscale ultrasound image with two regions of interest (ROIs) highlighted: a pink oval and a blue oval. The pink ROI is labeled with an area of 55.49 mm², and the blue ROI is labeled with an area of 42.71 mm². The software interface includes various control panels on the right and bottom. The 'Measurement' panel on the right has 'Angle' selected and highlighted with a red box. Below it, there are buttons for 'Area1' and 'Area2', and a 'Calculate' button. The 'Velocity' panel shows a value of 1550 m/s. The bottom panel includes playback controls and buttons for 'Export Movie' and 'Save Movie'.

Up to 2 spots on same time calculation

⑥ Angle calculation



Up to 2 spots on same time calculation

⑦ Dual/Quad Display

0 D 15MHz Info Patient ID : 12345678901234 Time : Feb/02/2010 09:47 Nav B-Diag O S

Patient Name :Tomez/Hanako Sex : Female Physician Tomez/Taro

ID:12345678901234 Jan/28/2011 09:58 L V = 1550 m/s

TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 25 Steps
FG: 13 Steps

Soothings : ON
Amp Curve : Los
ROI Settings : Normal
Frequency : 20MHz
Scan Mode : Basic Scope : Standard

Movie Still

Print Go to Freeze Screen-> GROUP (Print) GROUP (Save) Quad R/L Utilities

0 D 15MHz Info Patient ID : 12345678901234 Time : Feb/02/2010 09:47 Nav B-Diag O S

Patient Name :Tomez/Hanako Sex : Female Physician Tomez/Taro

ID: 1069 Jan/28/2011 19:53 R V = 1550 m/s

TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 30 dB
FG: 32 dB

Soothings : ON
Amp Curve : Los
ROI Settings : Lons
Frequency : 15MHz
Scan Mode : Basic Scope : Standu

ID: 1069 Jan/28/2011 10:50 R V = 1550 m/s

TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 30 dB
FG: 32 dB

Soothings : ON
Amp Curve : Los
ROI Settings : Normal
Frequency : Harmonic
Scan Mode : Basic Scope : Standu

ID: 1069 Jan/28/2011 19:53 R V = 1550 m/s

TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 30 dB
FG: 32 dB

Soothings : ON
Amp Curve : Los
ROI Settings : Lons
Frequency : 15MHz
Scan Mode : Basic Scope : Standu

ID: 1069 Jan/28/2011 10:01 R V = 1550 m/s

TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 25 dB
FG: 26 dB

Soothings : ON
Amp Curve : Los
ROI Settings : Lons
Frequency : 15MHz
Scan Mode : Basic Scope : Standu

Print R/L Back

⑧ R(OD) / L(OS) Display

The image displays a medical ultrasound interface with two side-by-side video windows. The left window is highlighted with a green border and labeled 'R' (Right) and 'OD' (Ocular Diagnostics). The right window is highlighted with an orange border and labeled 'L' (Left) and 'OS' (Ocular Sonography). Both windows show a grayscale B-mode image of an eye. The top status bar contains patient information: Patient ID: 12345678901234, Time: Feb/02/2010 09:47, Patient Name: TomeyHanako, Sex: Female, Physician: TomeyTaro. Technical parameters for both windows include: ID: 12345678901234, Date: Jan/28/2011, Time: 09:58, Velocity (V): 1550 m/s, TG: 56.0 dB + 0.0 dB, DR: 50.0 dB + 0.0 dB, NG: 25 Steps, FG: 13 Steps, Smoothing: ON, Amp Curve: Log, ROI Settings: Normal, Frequency: 20MHz, Scan Mode: Basic, Scope: Standard. The bottom control bar includes buttons for Print, Go to Freeze Screen, GROUP Export, GROUP Save, Quad, R/L, and Utilities.

0 D 15MHz Info Patient ID : 12345678901234 Time : Feb/02/2010 09:47 New B-Diag OS

Patient Name :TomeyHanako Sex : Female Physician TomeyTaro

ID:12345678901234 Jan/28/2011 09:58 L V = 1550 m/s

TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 25 Steps
FG: 13 Steps

Smoothing : ON
Amp Curve : Log
ROI Settings : Normal
Frequency : 20MHz
Scan Mode : Basic Scope : Standard

Movie Still

ID:12345678901234 Jan/28/2011 09:58 R V = 1550 m/s

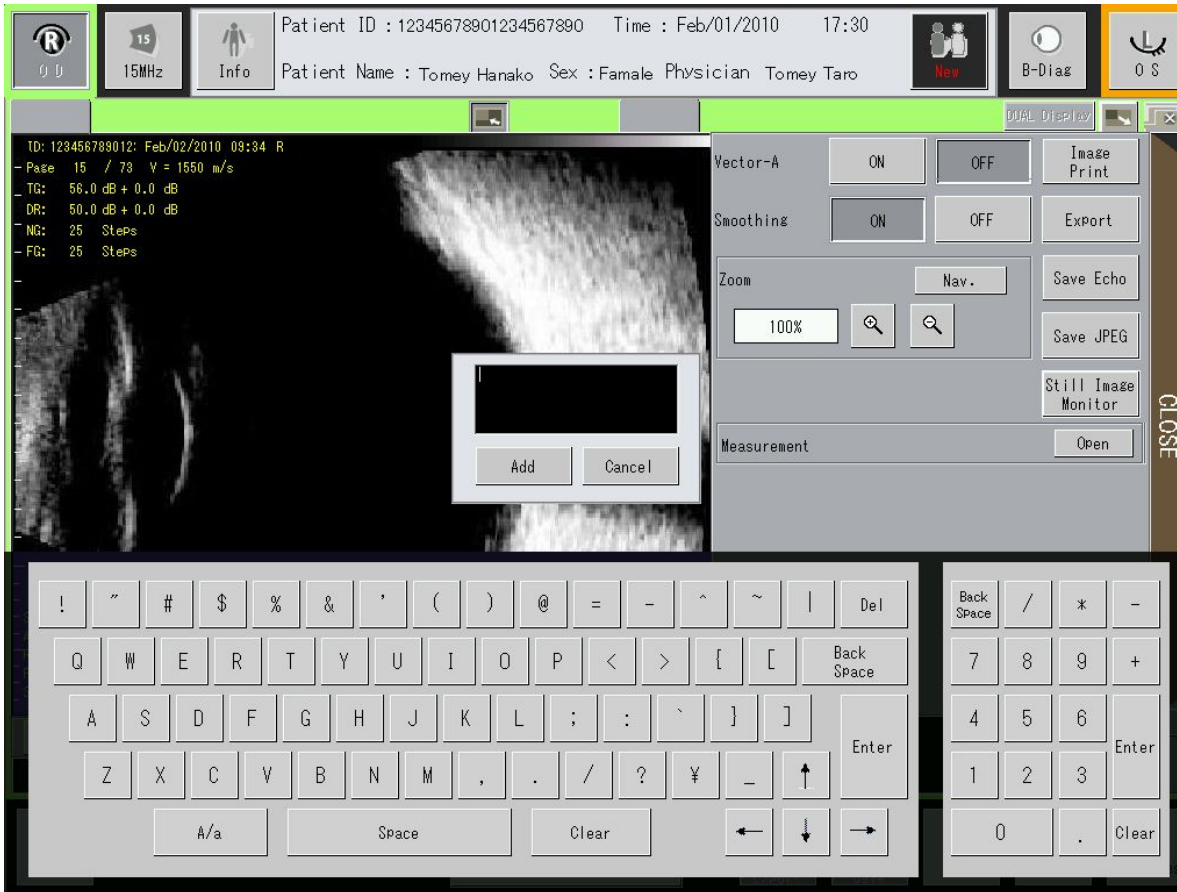
TG: 56.0 dB + 0.0 dB
DR: 50.0 dB + 0.0 dB
NG: 25 Steps
FG: 13 Steps

Smoothing : ON
Amp Curve : Log
ROI Settings : Normal
Frequency : 20MHz
Scan Mode : Basic Scope : Standard

Movie Still

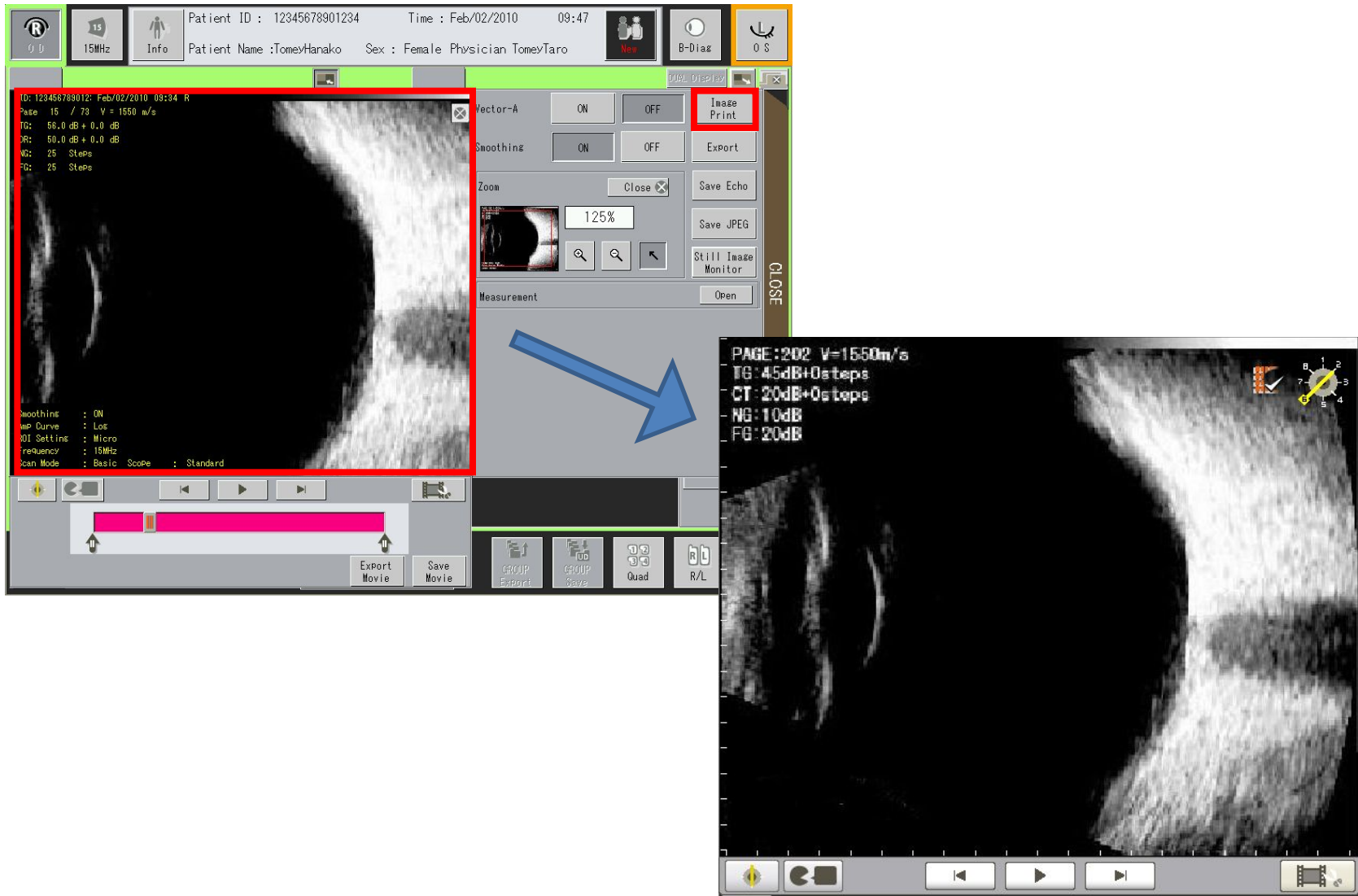
Print Go to Freeze Screen-> GROUP Export GROUP Save Quad R/L Utilities

⑨ In put Comment

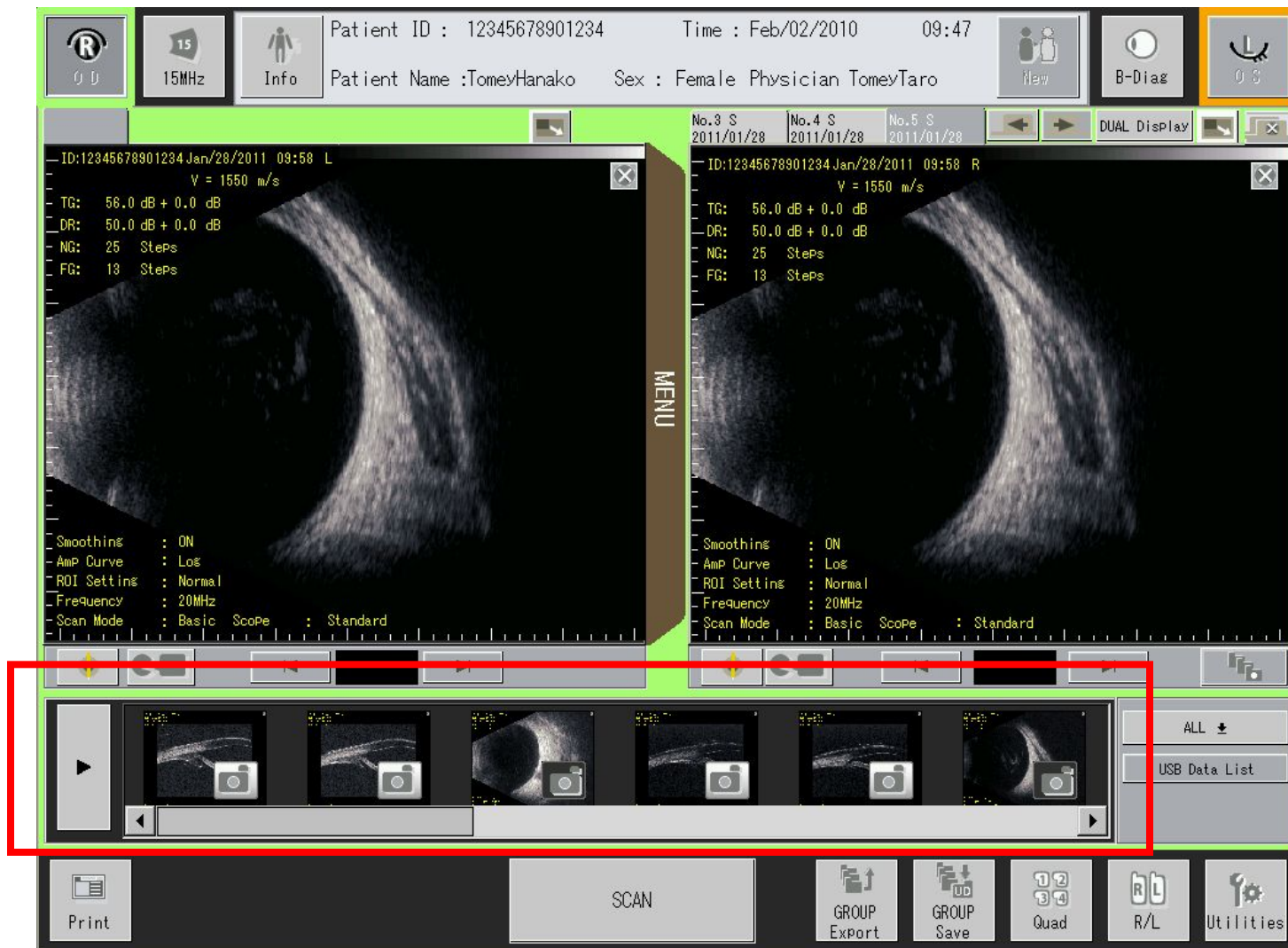


In put comment on
still picture or movie

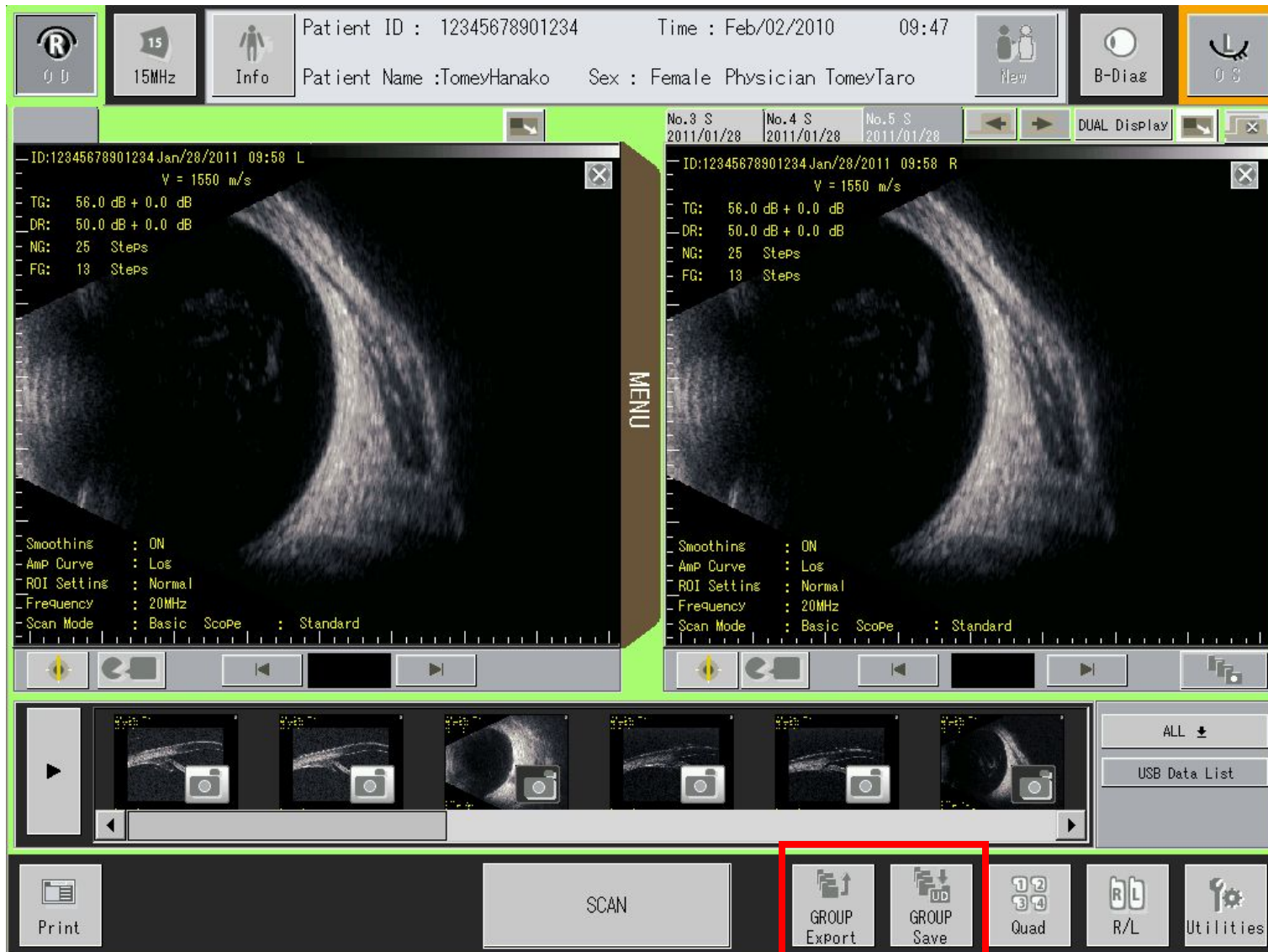
⑩ Print out by still image part only



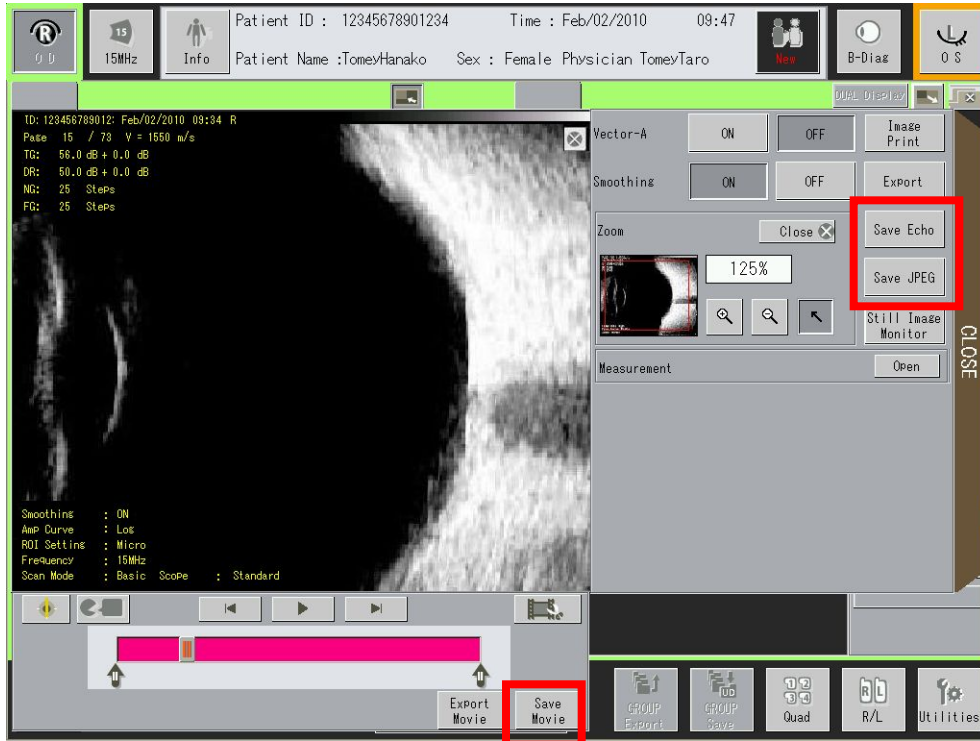
⑪ Thumbnail images



⑫ Group Export / Group Save



Save / Output



① Still image

Save Echo or JPEG format
(Re-Display, Edit possible)

② Movie

Save in USB memory by Echo
format and out put.



USB memory save capacity

ID : 32,750 Patients (Max)
Group Save : 64 Groups/Patient
20 still pictures/Group
USB size : 32GB (Max Acceptable)

15Mhz B-Scan (Estimate)

Still picture

32GB Approximately 123,000 picture
16GB Approximately 61,500 Pictures
8GB Approximately 30,700 Pictures

Movie (Max. 400frames for each file)

32GB Approximately 400frames = 307files
16GB Approximately 400 frames = 150files
8GB Approximately 400 frames = 70files

1 still picture = 260KB = 0.26MB

UBM 60Mhz B-Scan (Estimate)

Still picture

32GB Approximately 56,700 Pictures
16GB Approximately 28,300 Pictures
8GB Approximately 14,100 Pictures

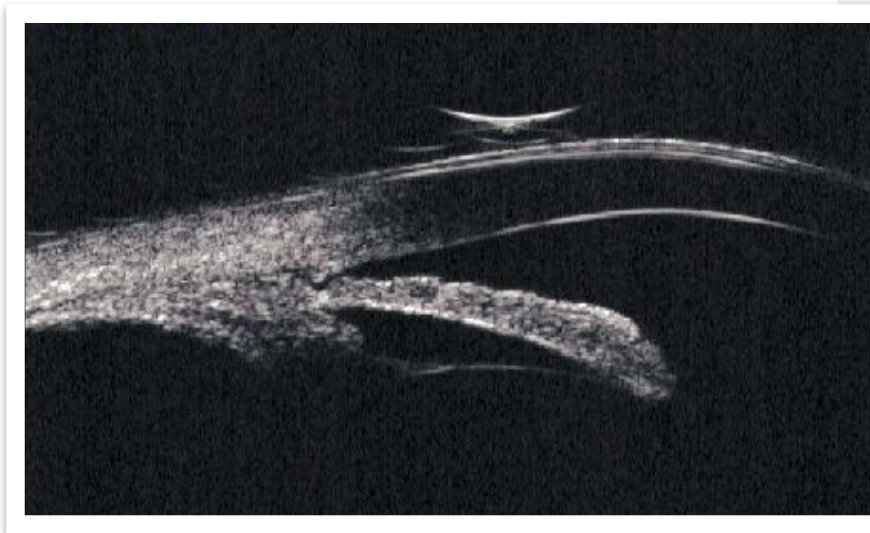
Movie (Max. 100frames for each file)

32GB Approximately 100frames = 567files
16GB Approximately 100 frames = 283files
8GB Approximately 100frames = 141files

1 still picture = 260KB = 0.26MB

UBM 60MHz / UD-8060

(Membrane waterproofing cap / No Eye Cup)

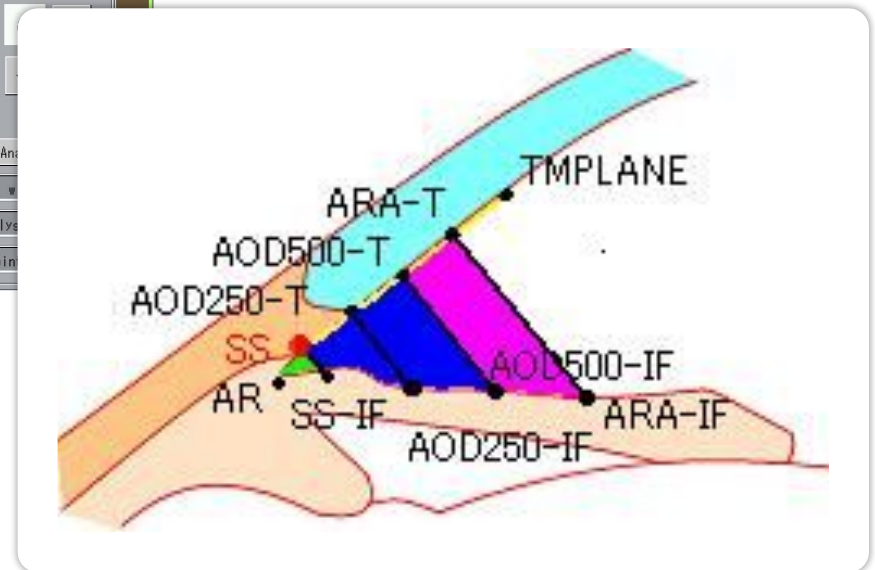
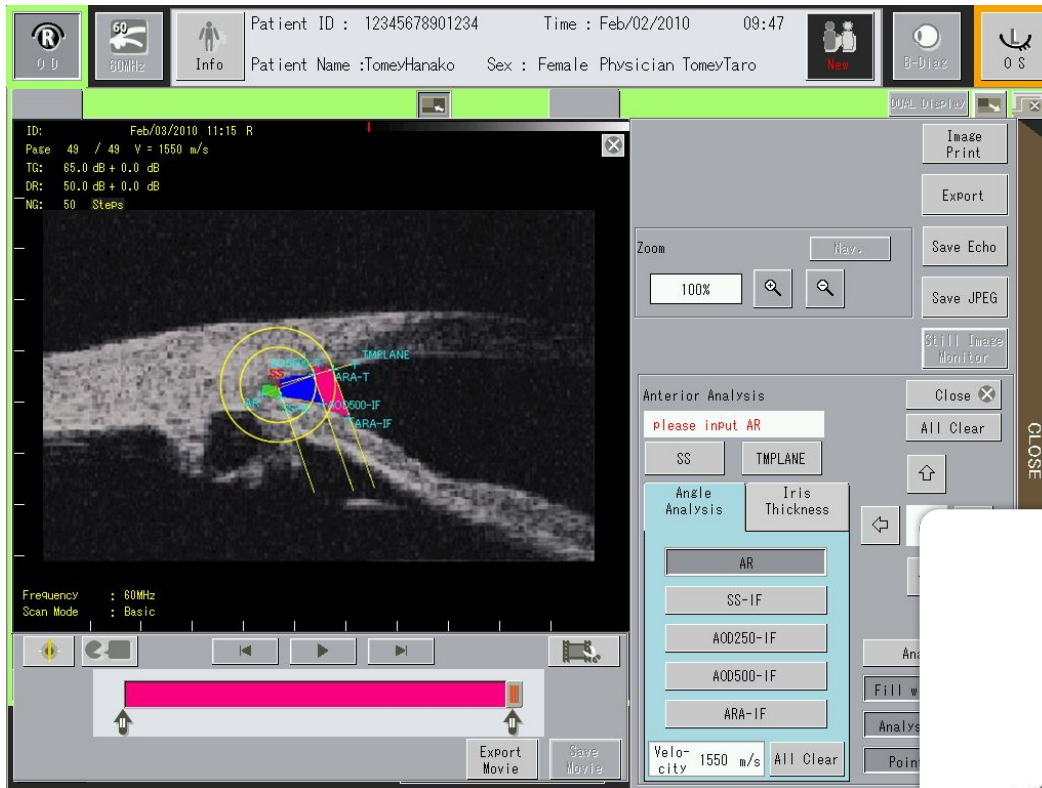


- ① Disposable
- ② No eye cup
- ③ Sitting position



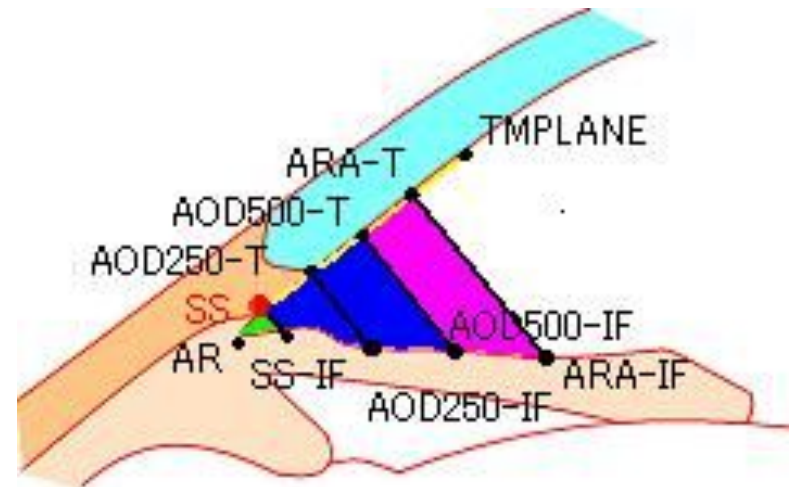


Angle Analysis



Angle Analysis Parameter]

SS	:	Sclera: The angle corner side of the line segment that constitutes the trabeculum plain
TMPLANE	:	The cornea side of the line segment that constitutes the trabeculum plain
SS-IF	:	The intersection of the iris anterior surface and the line that crosses SS and is vertical to the line that crosses SS and TMPLANE
AOD250-T	:	The measurement point on the trabeculum side of AOD250
AOD250-IF	:	The measurement point on the iris side of AOD250
AOD500-T	:	The measurement point on the trabeculum side of AOD500
AOD500-IF	:	The measurement point on the iris side of AOD500
ARA-T	:	A point, on the trabeculum (on the corneal surface), that is 750 um away from the sclera.
ARA-IF	:	The intersection of the iris anterior surface and the line that crosses ARA-T and is vertical to the line that crosses SS and ARA-T
AR	:	Angle point
AOD250	:	Distance between AOD250-T and AOD250-IF
AOD500	:	Distance between AOD500-T and AOD500-IF
AOD700	:	Distance between AOD700-T and AOD700-IF
ARA500	:	The area of the angle area defined by the line that crosses AOD500-T and AOD500IF
ARA750	:	The area of the angle area defined by the line that crosses AOD700-T and AOD700-IF
TISA500	:	The area of the angle area defined by the line that crosses SS and SS-IF and the line that crosses AOD500-T and AOD500IF
TISA700	:	The area of the angle area defined by the line that crosses SS and SS-IF and the line that crosses AOD700-T and AOD700-IF
TIA500	:	The angle between the line AB to AOD500-T and the line AB to AOD500-IF.



Iris Analysis

Patient ID : 12345678901234 Time : Feb/02/2010 09:47
 Patient Name : TomeyHanako Sex : Female Physician TomeyTaro

ID: Feb/03/2010 11:15 R
 Pulse 49 / 49 V = 1550 m/s
 TG: 65.0 dB + 0.0 dB
 DR: 50.0 dB + 0.0 dB
 NG: 50 Steps

Frequency : 80MHz
 Scan Mode : Basic

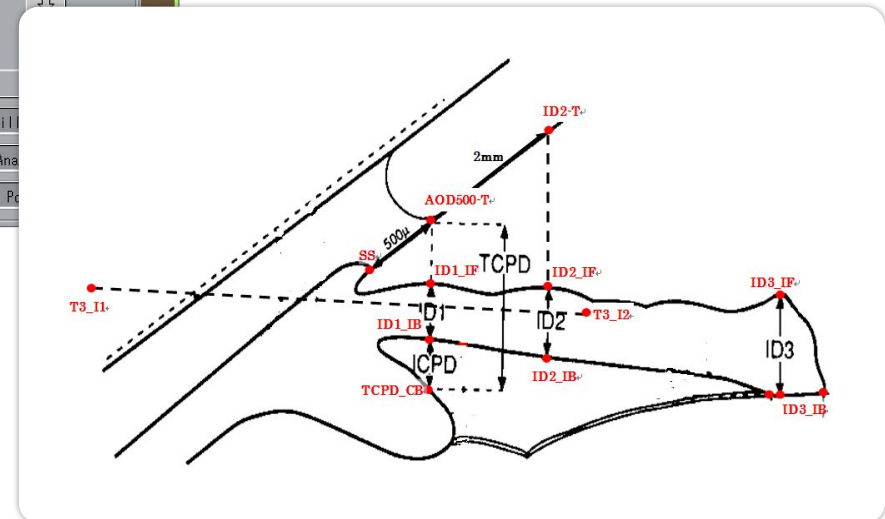
Anterior Analysis
 please input SS
 SS TMPLANE
 Angle Analysis Iris Thickness
 T3 T3-IF T3-IB
 ID1 ID1-IF ID1-IB
 TCPD TCPD-CB
 ID2 ID2-IF ID2-IB
 ID3 ID3-IF ID3-IB
 Velocity 1550 m/s All Clear

Image Print
 Export
 Save Echo
 Save JPEG
 Still Image Monitor
 Close
 All Clear
 SS
 TCPD
 ID1
 ID2
 ID3
 Fill
 Ana
 Pe

Zoom 100%
 Nav.

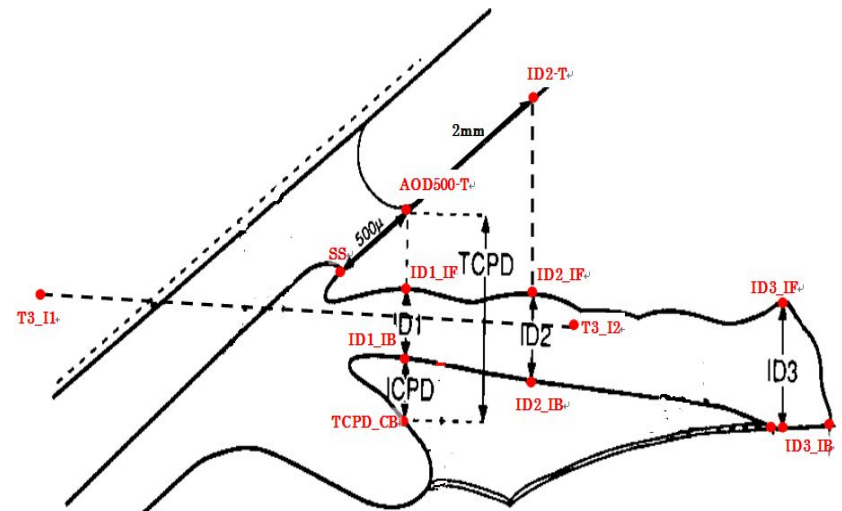
AOD500-T
 TMPLANE
 SS 500μ
 ID1-IF
 ID1-IB
 ID2-IF
 ID2-IB
 ID3-IF
 ID3-IB
 TCPD
 TCPD-CB
 T3-IF
 T3-IB

EXPORT MOVIE SAVE MOVIE



Iris Analysis Parameter]

T3-I1	:	Terminal point 1 of line T3
T3-I2	:	Terminal point 2 of line T3
ID1-IF	:	The intersection of the iris anterior surface and the line that crosses AOD500-T and is vertical to line T3
ID1-IB	:	The intersection of the iris posterior surface and the line that crosses AOD500-T and is vertical to line T3
TCPD-CB	:	The intersection of the ciliary process surface and the line that crosses AOD500-T and is vertical to line T3
ID2-T	:	The point, on the corneal surface, that is 2 mm away from SS
ID2-IF	:	The intersection of the iris anterior surface and the line that crosses ID2-T and is vertical to line T3
ID2-IB	:	The intersection of the iris posterior surface and the line that crosses ID2-T and is vertical to line T3
ID3-IF	:	The point, on the iris anterior surface, at which the distance between the intersections of the T3-vertical line and the iris anterior and posterior surfaces first marks a peak value when measured from the pupil side
ID3-IB	:	The point, on the iris posterior surface, at which the distance between the intersections of the T3-vertical line and the iris anterior and posterior surfaces first marks a peak value when measured from the pupil side
ID1	:	Distance between ID1-IF and ID1-IB
ID2	:	Distance between ID2-IF and ID2-IB
ID3	:	Distance between ID3-IF and ID3-IB
TCPD	:	Distance between AOD500-T and TCPD-CB
ICPD	:	Distance between ID1-IB and TCPD-CB





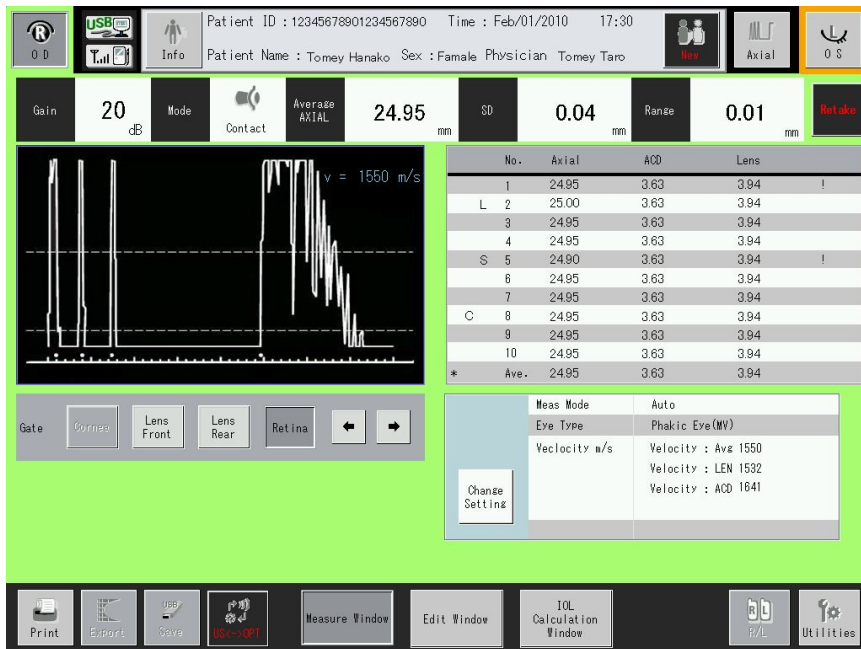
AL-4000 (Biometry/Pachymetry)

- ① A-Biometry
- ② IOL Power calculation
- ③ Pachymetry

USB or Bluetooth communication

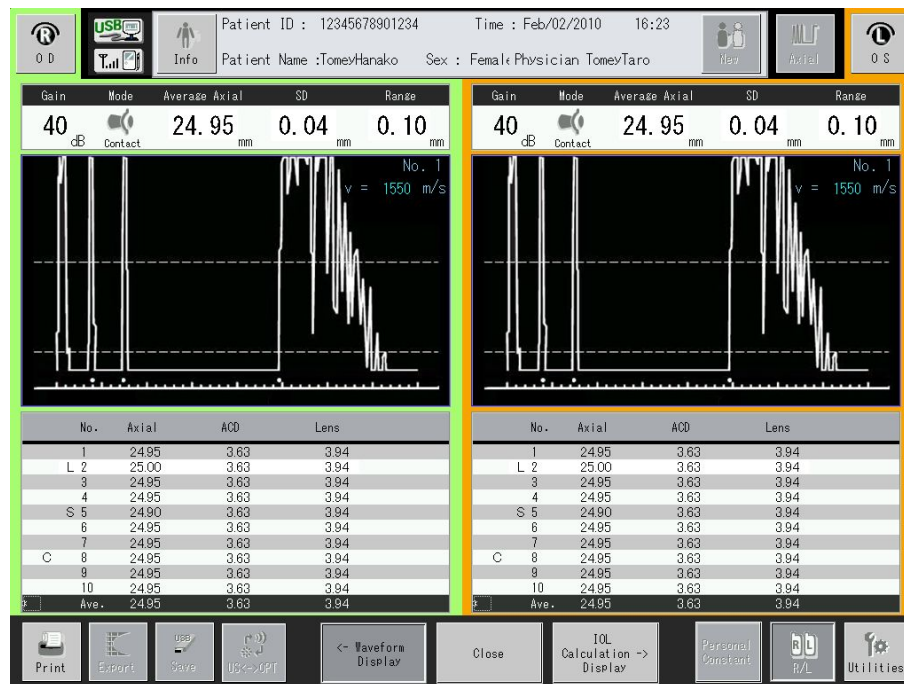


① A-Biometry

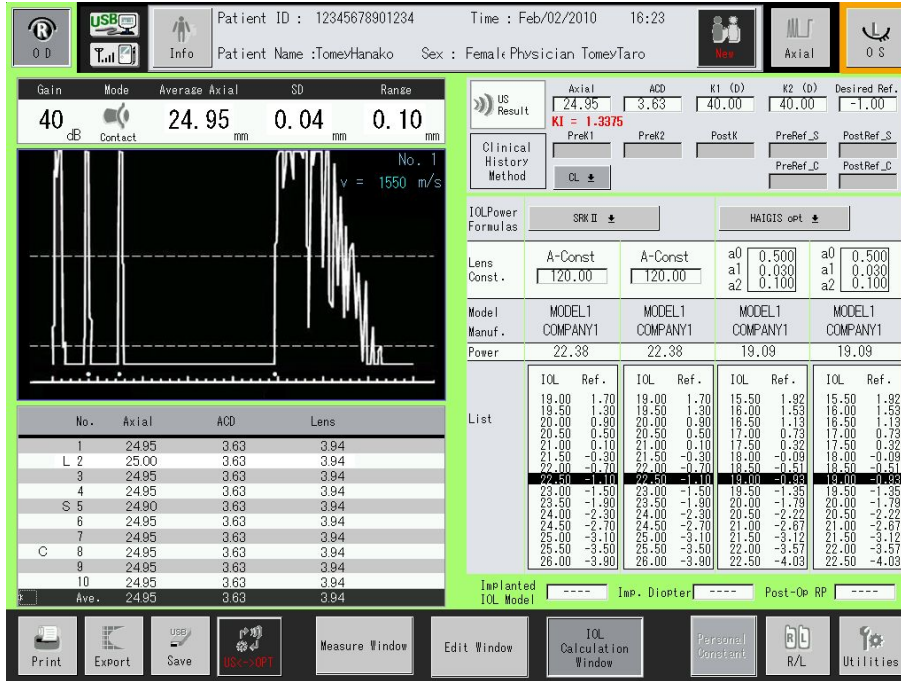


One eye

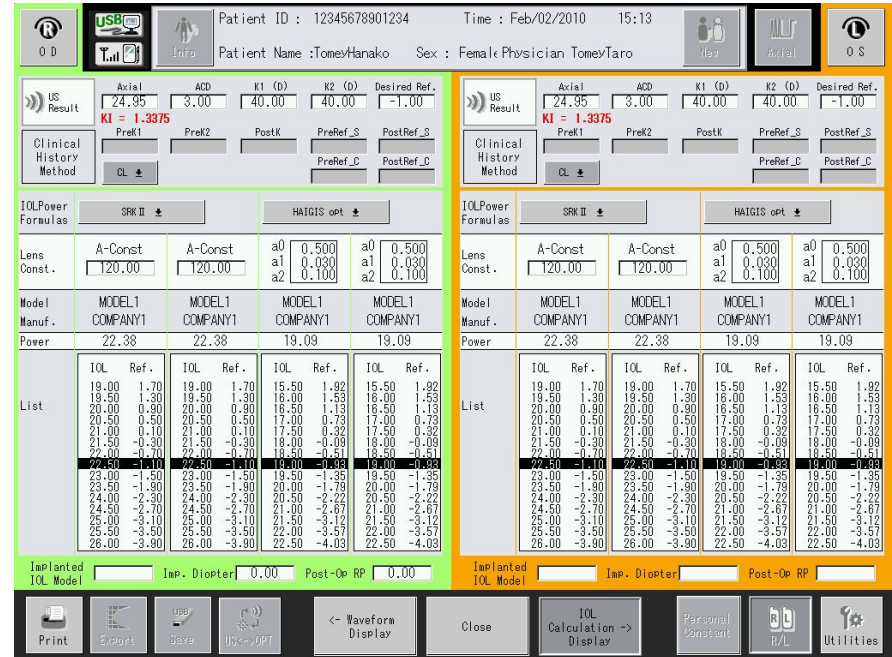
Both eye (R/L)



② IOL Power calculation



One eye



Both eye (R/L)

③ Pachymetry

Patient ID : 12345678901234567890 Time : Feb/01/2010 17:30
 Patient Name : Tomey Hanako Sex : Female Physician : Tomey Taro

Actual 300-1000 μ m Retake
476 μ m

Average		SD	
μ m	μ m	μ m	μ m
478	478	5.9	5.9

1	477	CCT	6	462	ϕ 8.0 - 0° (I)
2	1500	ϕ 8.0 0° (S)	7	1500	ϕ 8.0 45° (I)
3	490	ϕ 8.0 45° (S)	8	462	ϕ 8.0 90° (I)
4	262	ϕ 8.0 90° (S)	9	490	ϕ 8.0 135° (I)
5	490	ϕ 8.0 135° (S)	10	490	CCT

Meas Method: Auto
 Velocity: 1840 m/s
 Bias Value: 70 %
 Meas Data Displ: Actual
 Meas Data Selection: Latest

Delete | Calliper | Meas Point | Change Meas Point

Print | Export | Save | USB<->Prt | Meas/Edit | Calibration | IOP | Subtraction | R/L | Utilities

One eye

Patient ID : 12345678901234 Time : Feb/02/2010 15:13
 Patient Name : Tomey Hanako Sex : Female Physician : Tomey Taro

300-1000 μ m 300-1000 μ m

No. 4

No. 10

Cor. IOP = Meas IOP + Δ P

Δ P = (- CCT) X

Formula1 | Formula2 | Formula3

Meas IOP : hPa
 CCT : μ m

Cor. IOP = 25.60 hPa

Cor. IOP = Meas IOP + Δ P

Δ P = (- CCT) X

Formula1 | Formula2 | Formula3

Meas IOP : hPa
 CCT (Avz) : μ m

Cor. IOP = 25.60 hPa

Print | Export | Save | USB<->Prt | <-Meas Data | Back | IOP Formula-> | IOP | Subtraction | R/L | Utilities

Both eye (R/L)

<15MHz B Probe>

- Focus : Dynamic Focus
- Frame rate
 - Basic mode : 22 frame / sec
 - High Sensitive mode : 11 frame / sec
- Maximum number of pages in a movie : 400 pages x 2
- Image display range
 - Standard : 42mm / 52° (at ultrasound velocity=1550 m/sec)
 - Wide : 54mm / 52°(at ultrasound velocity=1550 m/sec)
- Color scale : 256 scale level
- Scan type : Sector scanning
- Transducer type : Annular array
- Transducer frequency : 15 MHz

<60MHz UBM Probe >

- Frame rate
 - Basic mode : 10 frame / sec
 - High Sensitive mode : 7 frame / sec
- Maximum number of pages in a movie : 100 pages x 2
- Image display range : 9 mm(W) x 7mm(D) (at ultrasound velocity=1550 m/sec)
- Color scale : 256 scale level
- Scan type : Linear scanning
- Transducer type : Single
- Transducer frequency : 60 MHz
- Dimensions and weights
 - Dimension : 398(W)×359(D)×456(H) mm
 - Weight : 15.0kg
- Display
 - TFT LCD : 15 inches, color touch screen
- Power source
 - Input Voltage : 100-120V / 220-240 VAC
 - Frequency : 50/60Hz
 - Power Consumption : 125/125 VA

		UD-8000	UD-6000
Standard Probe	Frequency	15MHz	10MHz
	Resolution	0.4mm	0.5mm
	Frequency Chang over function	Yes (15MHz / 20MHz / Harmonic)	No
	Capture pict (Max)	400pcs (Appro. 20sec)	202pcs (Appro.10sec)
	Angle (Max)	51mm × 51.0°	46mm × 46.4°
	Dimension · Weight	27 × 21.6 × 134(mm) 97g	φ25.6 × 198 (mm) 400g
	UBM Probe	Frequency	60MHz
Resolution		0.05mm(Actual 0.04)	0.05mm(Actual 0.06)
Membrane cap		Yes (EOG antiseptis)	No
Sitting,Prostrate position examine		Possible	Impossible
Eye cup examine		Possible	Possible
Angle (Max)		9 × 7 (mm)	9 × 6 (mm)
Dimension · Weight		27 × 26 × 144 (mm) 101g	φ30.9 × 200 (mm) 680g
Others Specifications	Display	15' TFT color display	10.4' TFT color display
	Save Media	USB memory	CF card memory
	Save / Still picture	JPEG / Raw data	JPEG / Raw data
	Save / Movie (EXPORT)	Raw data: Change to AVI file through data transfer.	No
	Group saving	Up to 20 frames	No
	Measurement function	Distance(3) Angle(2) Area(2)	Distance(1)、Area(1)
	Angle analyze function	AOD250,AOD500, AOD750, ARA500, ARA750, TIA500, TISA500, TISA750	AOD250, AOD500, ARA750, TIA500
	Iris analyze function	ID1, ID2, ID3, TCPD, ICPD	なし
	Comment in put	Yes (All Probe)	Yes (UBM Only)
	Printing (Picture only)	Yes	No
	Probe line up	15MHz Probe 60MHz Probe 30MHz Probe 40MHz Probe	10MHz Probe 40MHz Probe
	Probe shifting part	Basal part	Main unit part

Thank you !