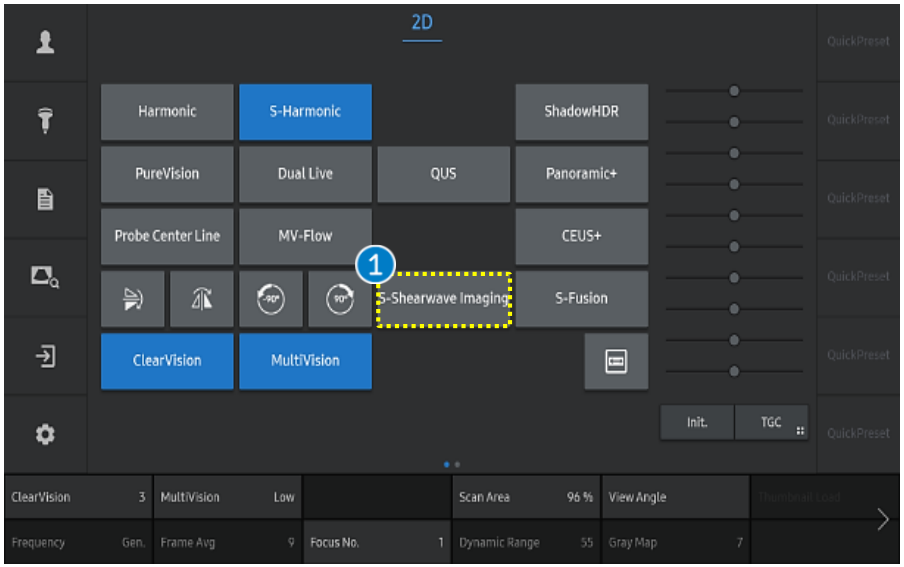
SAMSUNG

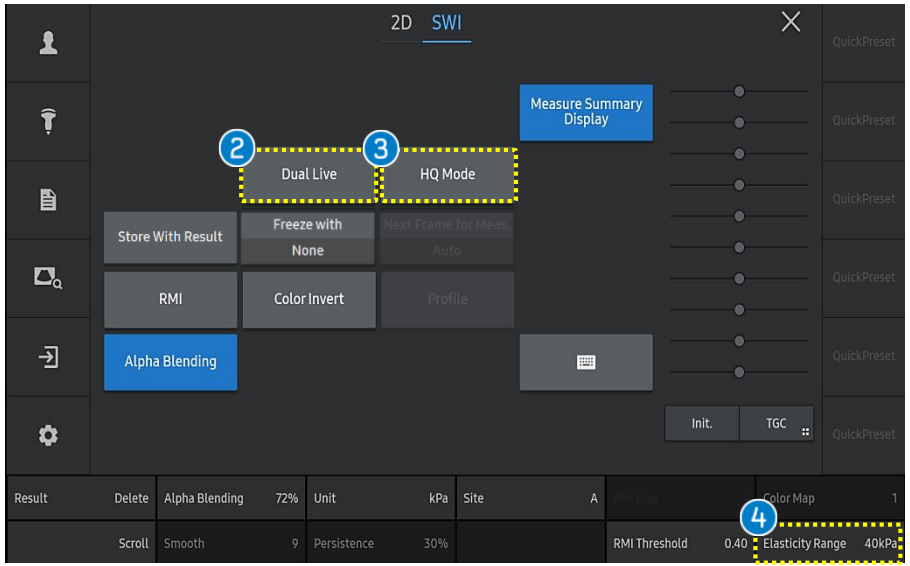
S-Shearwave Imaging™

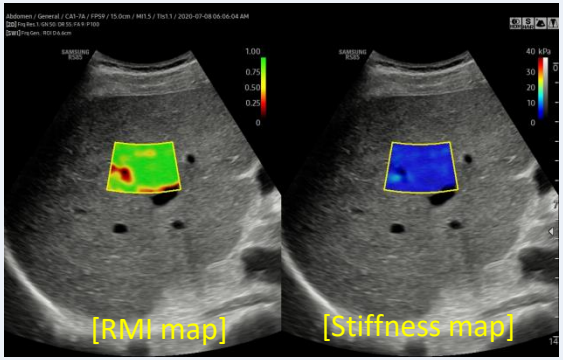
RS85 Prestige **Quick Guide**

Produced by Clinical Training Center / SAMSUNG MEDISON CO.,LTD

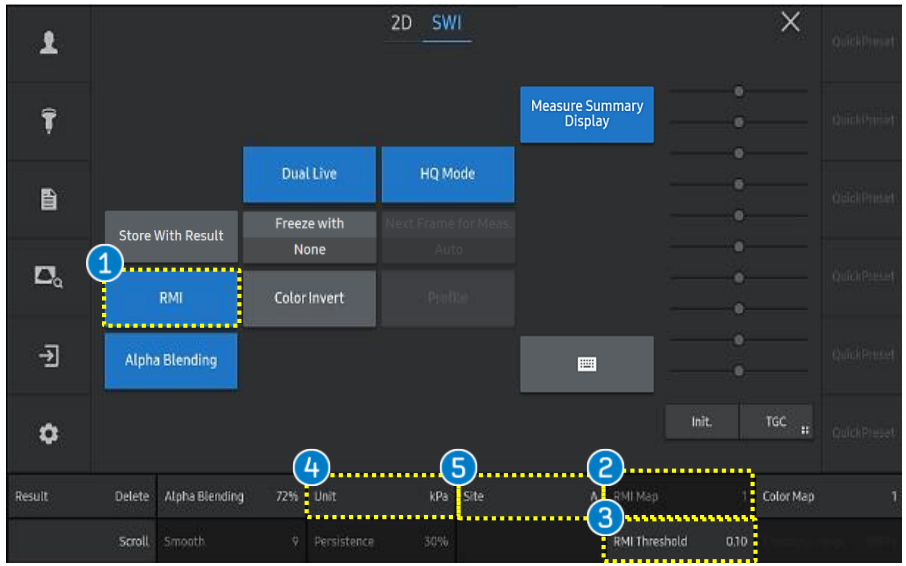
1. Start S-Shearwave Imaging™

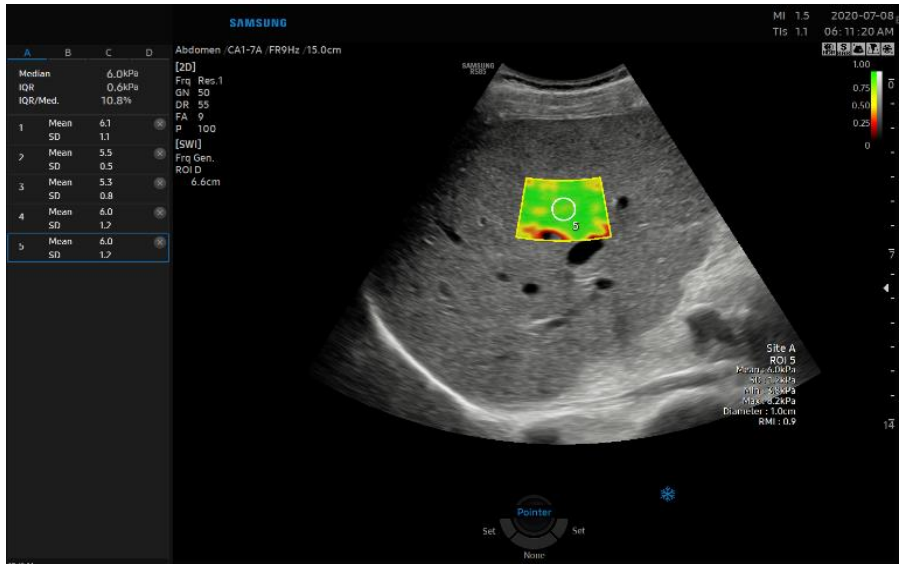




① S-Shearwave Imaging	Tap the [S-Shearwave Imaging] on the touch screen to start.
② Dual Live	It displays both stiffness map and RMI map or 2D images in real time. 
③ HQ Mode	With this [HQ Mode], it provides high resolution image.
④ Elasticity Range	It is to change the color stiffness map range. If you change the [Elasticity Range], color map within ROI and the color of elasticity bar also will be changed accordingly.

2. Parameters

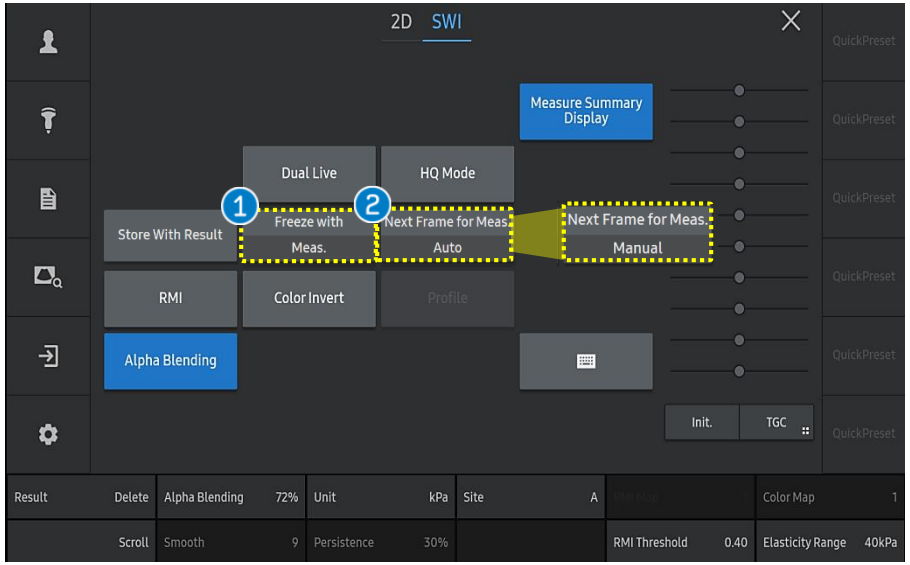


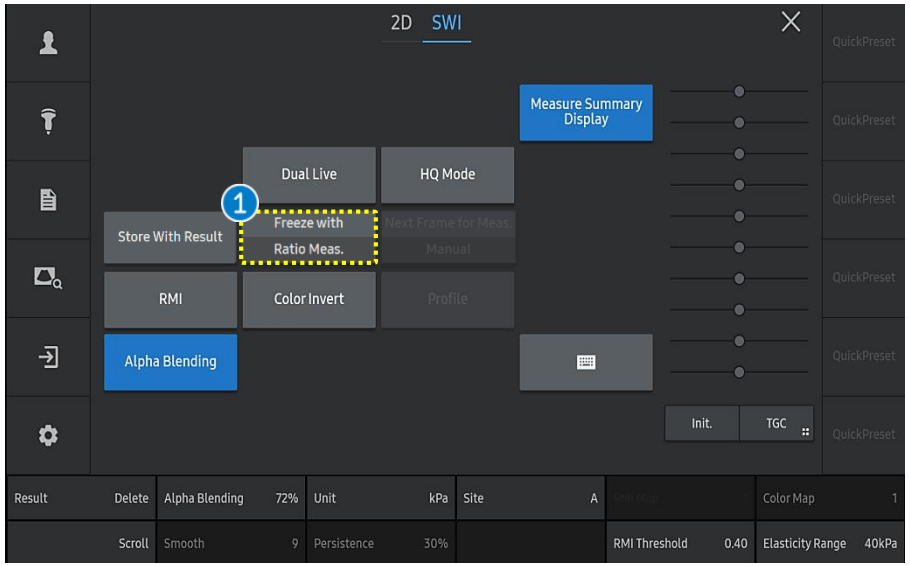


[RMI map]

① RMI	It represents the reliability of the measured the shearwave elasticity value. ▪ The higher RMI index indicates higher reliability. ▪ It is considered to be reliable for RMI ≥ 0.4
② RMI map	It can change the RMI map for user preference.
③ RMI Threshold	User can set the [RMI threshold]. then SWI color map will be excluded below the threshold.
④ Unit	It is to change the unit of an elasticity value. ▪ The unit [kPa] is based on Young's modulus. ▪ The unit [m/s] is for Shearwave speed.
⑤ Site	It is to change the ROI site.

3. Measure the Elasticity (1)





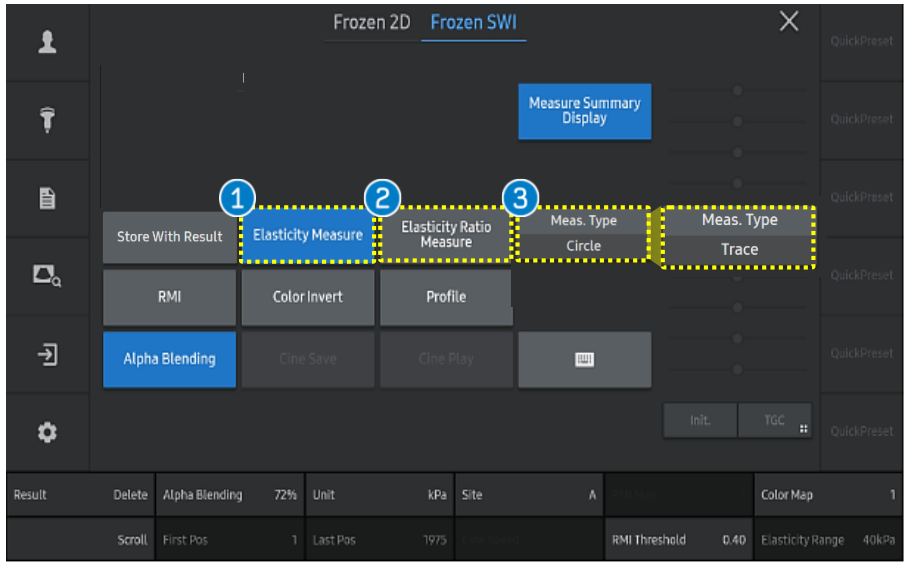
① Freeze with Meas./ Ratio Meas.	Starts Elasticity Measurement/Elasticity Ratio Measure when pressing Freeze.
② Next Frame for Meas.	▪ Auto: Automatically moves to the next frame after confirming the measurement by pressing [Set] button. ▪ Manual: Moves to the next frame by pressing [Next Frame] after confirming the measurement.

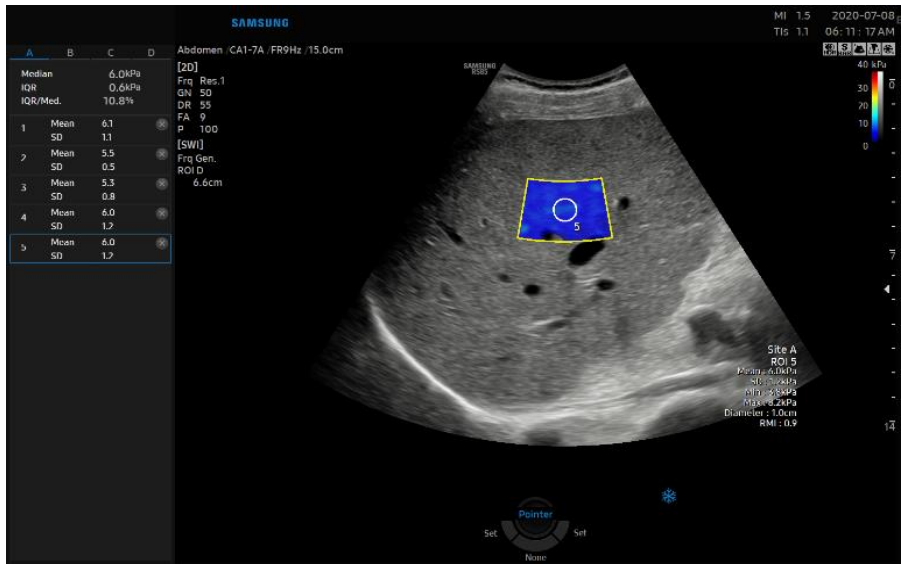
Notes

The Next Frame direction can be selected between Forwards or Backwards in the Setup page.

Setup (Imaging ▶ Features ▶ S-Shearwave Imaging ▶ Next Frame Direction ▶* ***Forward / Backward**)*

3. Measure the Elasticity (2)





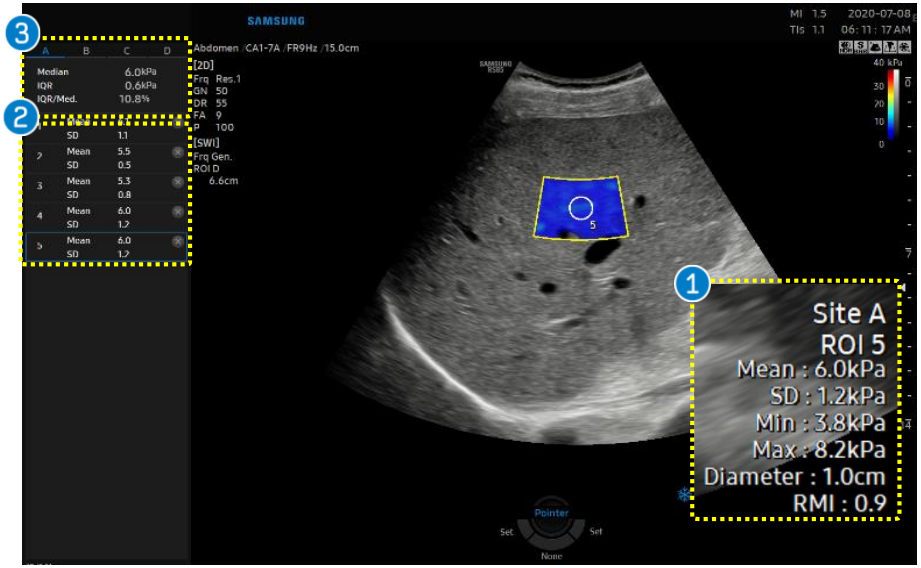
① Elasticity Measure	Tap the [Elasticity Measure]button. ▪ You can adjust ROI size using change key. ▪ Press the [Set] button to save the value. ▪ When moving the trackball, it copies additional ROI for next measurement.
② Elasticity Ratio Measure	Tap the [Elasticity Ratio Measure]button. ▪ Place the first quantification ROI on the **area of interest** within the elasticity ROI and press the [Set] button. ▪ Place the second quantification ROI on the **reference** are within the elasticity ROI and press the [Set] button.
③ Meas. Type	Select the measurement of ROI type between **Circle** or **Trace** type.

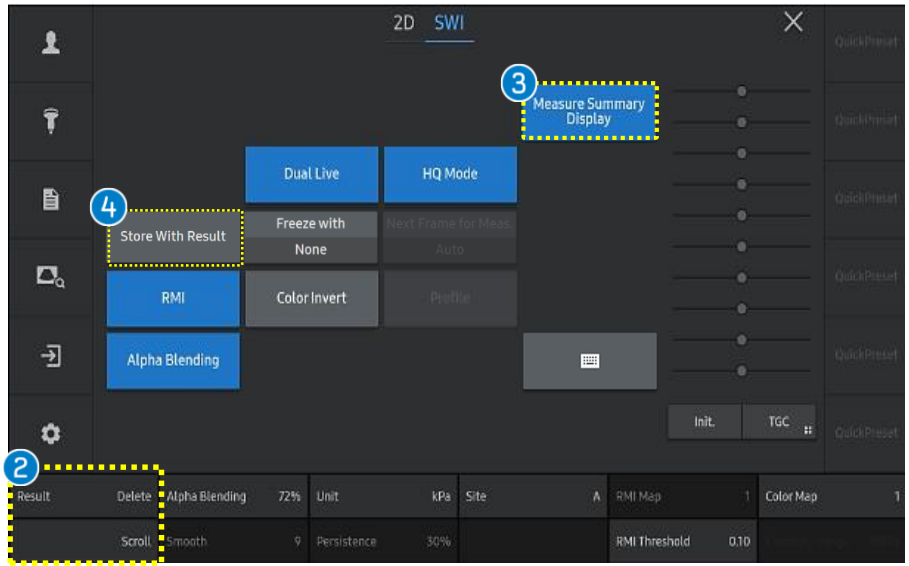
Notes

If Next Frame for Meas. is used, the location of the measurement ROI to the next frame can be set in the Setup page.

Setup (Imaging ▶ Features ▶ S-Shearwave Imaging ▶ Next Measurement Cursor Display Position ▶ **Center of ROI / Keep Last Position)*

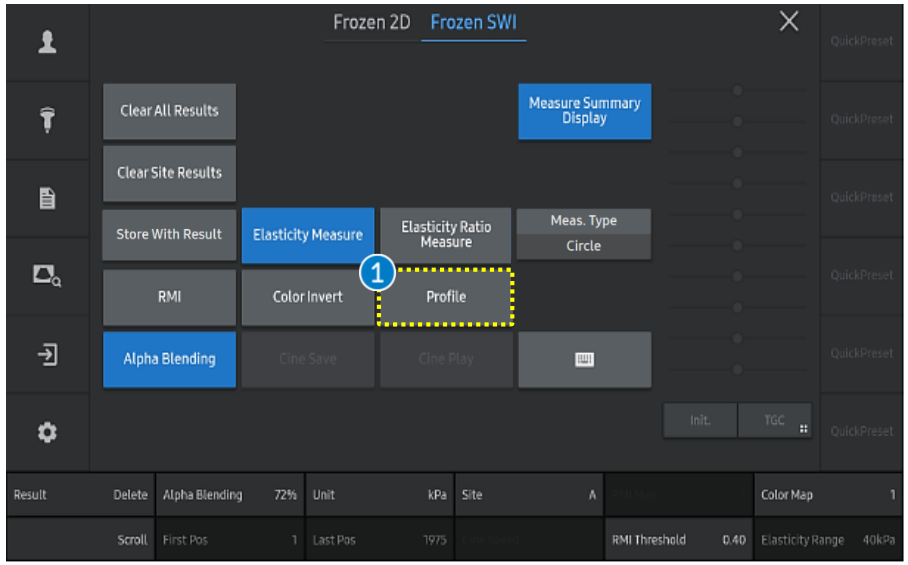
4. Results

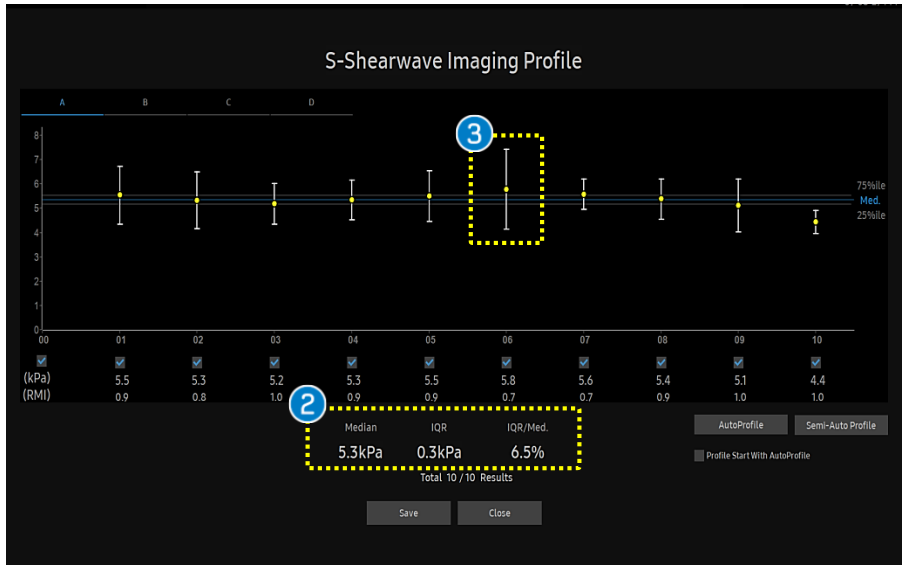


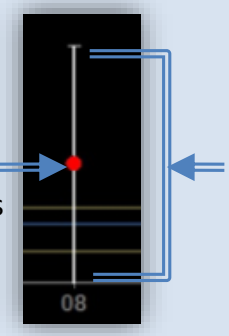


① Result box	The stiffness results within quantification ROI are displayed. ▪ Mean : Mean Elasticity value in ROI. ▪ SD : Standard deviation in ROI. ▪ Min : Minimum Elasticity value in ROI. ▪ Max : Maximum Elasticity value in ROI. ▪ Diameter : Diameter of ROI box. ▪ RMI : The reliability of the measured Shearwave Elasticity value.
② Stiffness Result	Available to view the measured results. It can scroll the result using the [Scroll] button. If you want to delete the result individually by pressing the [Delete] button or selecting icon.
③ Measure Summary Display	▪ Available to select if the measure summary (Median, Mean, IQR, IQR/Med value) display on the result or not. ▪ You can configure the results that you wish to display and their order in 'Utility > Setup> Imaging > Features > S-Shearwave imaging™.
④ Store with Result	Saves the image including the measurement results area.

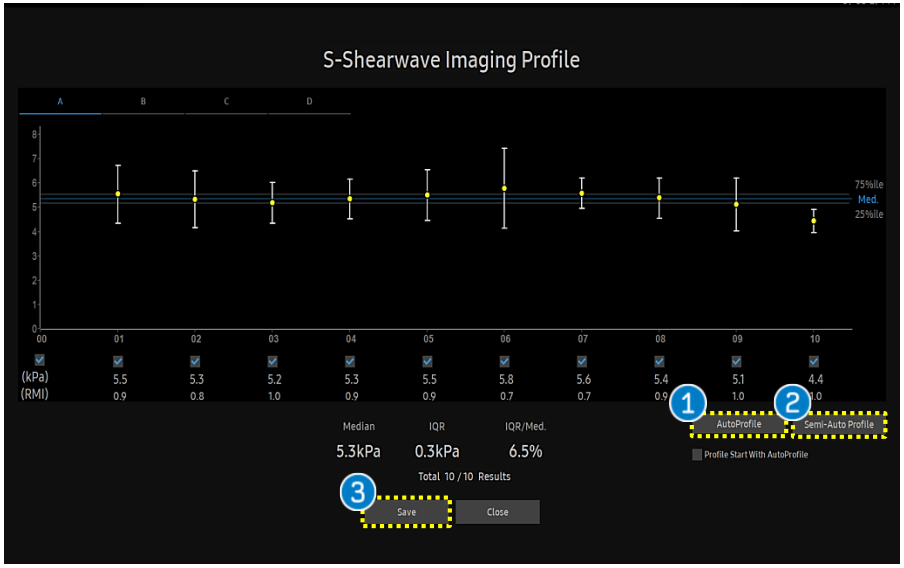
5.Profile (1)



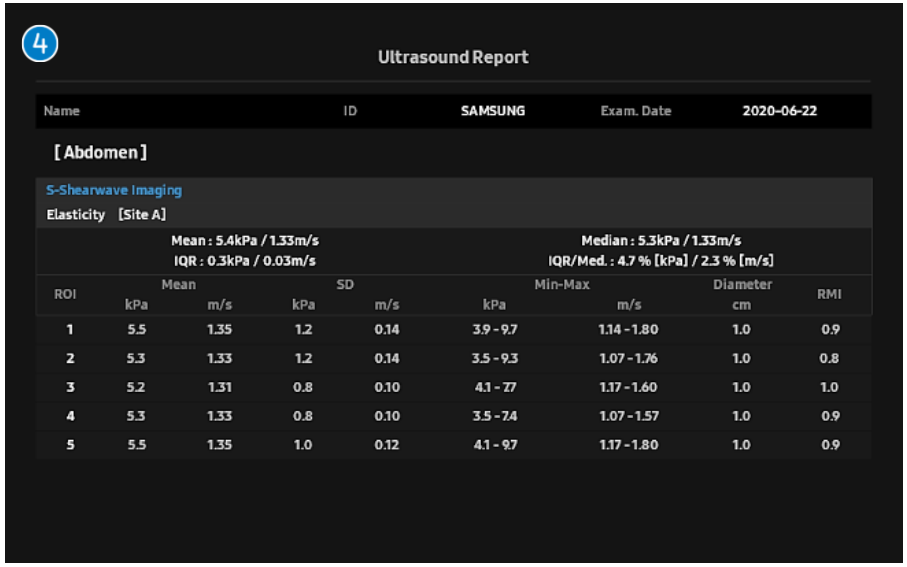


① Profile	Tap the [Profile] button on the touch screen.
② Results	▪ S-Shearwave Imaging™ Profile view could be used criterion to assess the quality of the data. ▪ **Median** : Central value ▪ **IQR/Med.** - IQR(Interquartile Range) : 75percentile - 25percentile - IQR/Med < 30% : Acceptable value IQR/Med > 30% : Unreliable value
③ Result Graph	Average of shear wave measurements  Standard deviation of measurements

5.Profile (2)



1 Auto Profile	Exclude all unreliable data to set the IQR/Med value to 30% or lower.
2 Semi-Auto Profile	Exclude unreliable data one by one, start from the most unreliable data, and set the IQR/Med value close to 30% or lower.
3 Save	Save and send the result to the report page.
4 Report	Select the [Report] button on the touch screen and the result value is saved on the report.

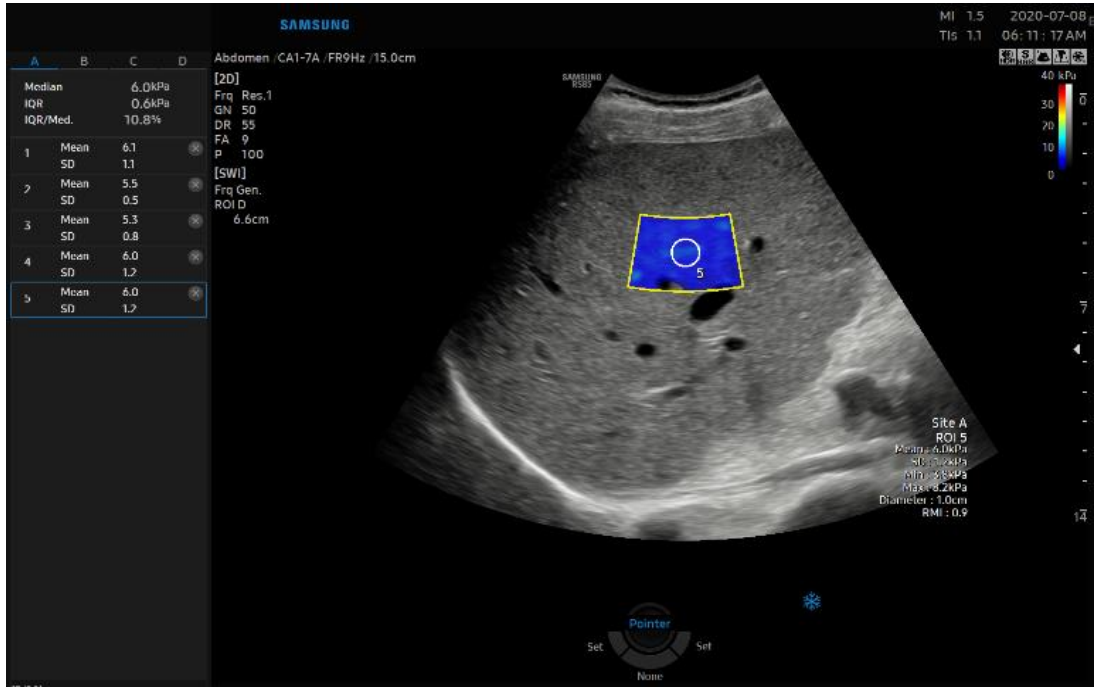


ROI	Mean kPa	Mean m/s	SD kPa	SD m/s	Min-Max kPa	Min-Max m/s	Diameter cm	RMI
1	5.5	1.35	1.2	0.14	3.9 - 9.7	1.14 - 1.80	1.0	0.9
2	5.3	1.33	1.2	0.14	3.5 - 9.3	1.07 - 1.76	1.0	0.8
3	5.2	1.31	0.8	0.10	4.1 - 7.7	1.17 - 1.60	1.0	1.0
4	5.3	1.33	0.8	0.10	3.5 - 7.4	1.07 - 1.57	1.0	0.9
5	5.5	1.35	1.0	0.12	4.1 - 9.7	1.17 - 1.80	1.0	0.9

Notes

The result can be trusted only when the value from dividing Interquartile Range by Median (IQR/Med.) is less than 30%.

Tips and Tricks



Notes

How to obtain accurate S-Shearwave Imaging™.

- Fast for 4 hours before the examination is recommended.
- **To maximize intercostal space, supine position** with raised a right arm above the head is recommended.
- Scan through the intercostal space between ribs since evaluation on right liver lobe is more recommended.

  ※ Possible to get more reliable result than through a subcostal scan by preventing motion artifacts and providing an easy access.
- Ask patients to breathe steadily and stably before holding their breath to avoid deep breathing.
- ROI should be at least 1.5cm below the liver capsule. (over 2cm is recommended)

- The features, options may not be commercially available in some countries.
- Sales and shipments are effective only after the approval by the regulatory affairs. Please contact your local sales representative for further details.
- This Quick guide does not include all of the details of instruction, fore more detail, please refer to RS85 User Manual.
- Do not distribute this document to customers unless relevant regulatory and legal affairs officers approve such distribution.
- This User Quick Guide is based on RS85 V2.08.01
- Disclaimer: Some Images in this content were obtained from other system.

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