Confidential

SAMSUNG

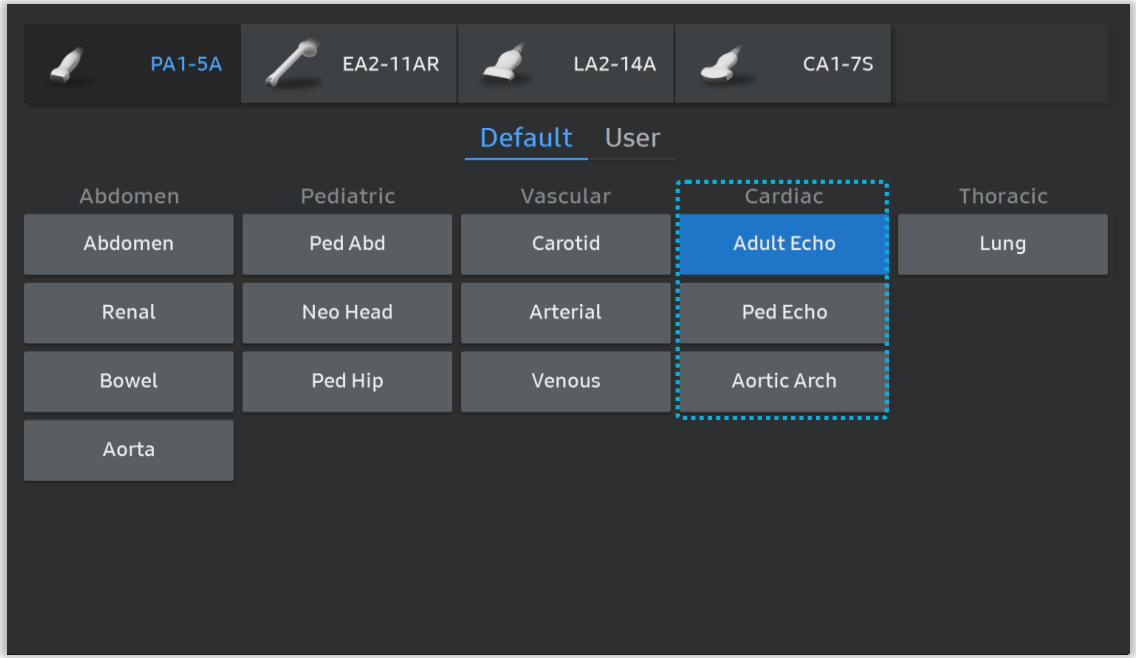
Strain+

V series **Quick Guide**

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

Strain+

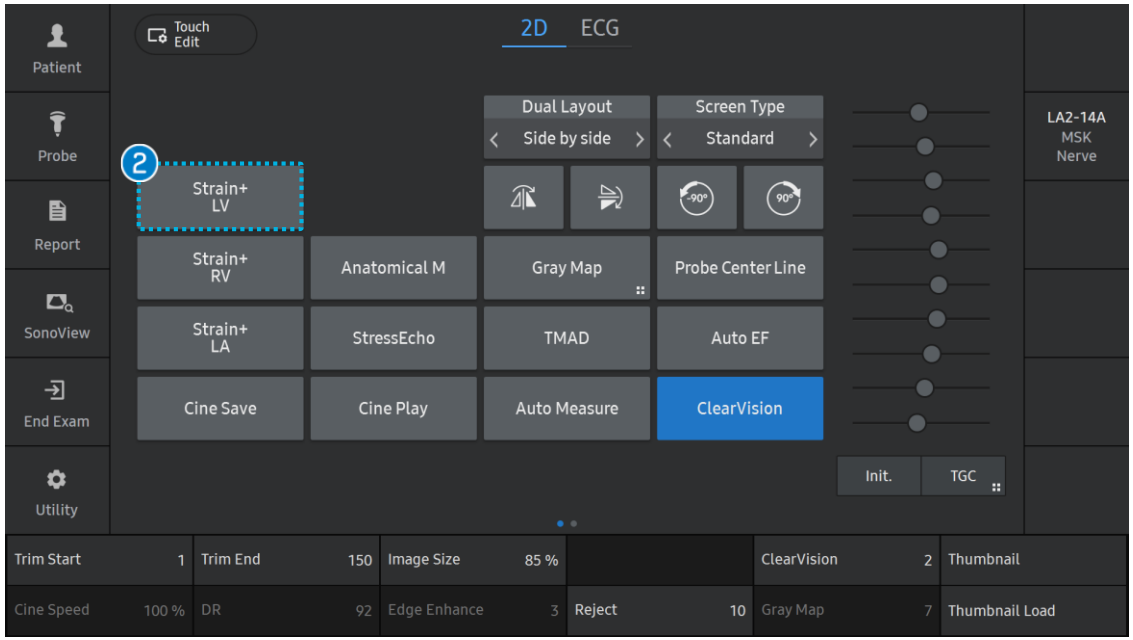
1. Probe and Preset



※ Available application and preset

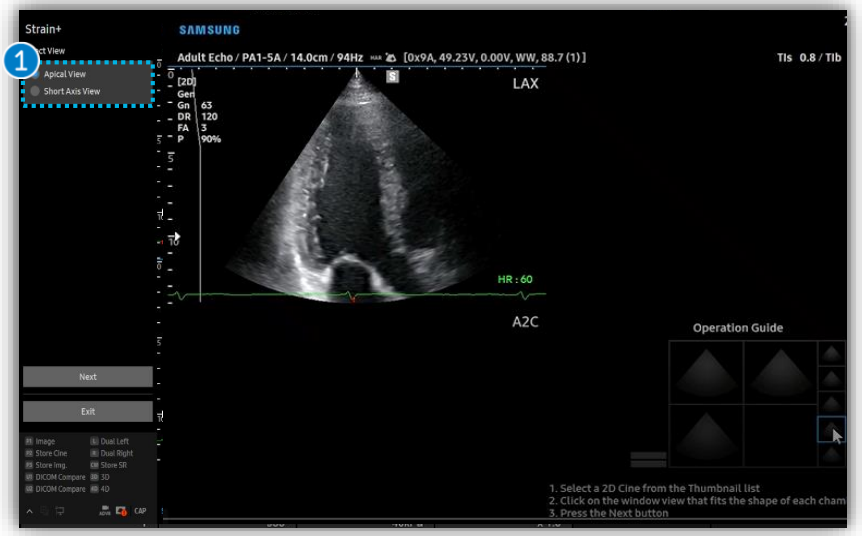
Application	Cardiac
Preset	Adult Echo, Ped Echo, Aortic Arch
Mode	2D
ECG Heart rate	30~240

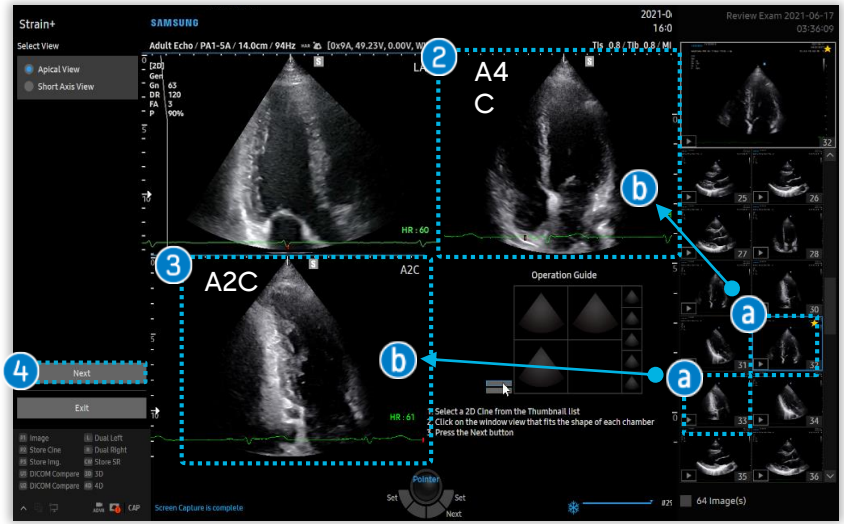
2. Start Strain



❶ Image scan & Save	Save the cine clip for Strain. * The requirements for Longitudinal and Radial Strain analysis are LAX, A4C, and A2C views.
❷ Strain+	Select [Strain+] button on the touch screen to start. It is recommended to start on LAX view. * LAX = Apical Long Axis/A3C

3. Select Strain images

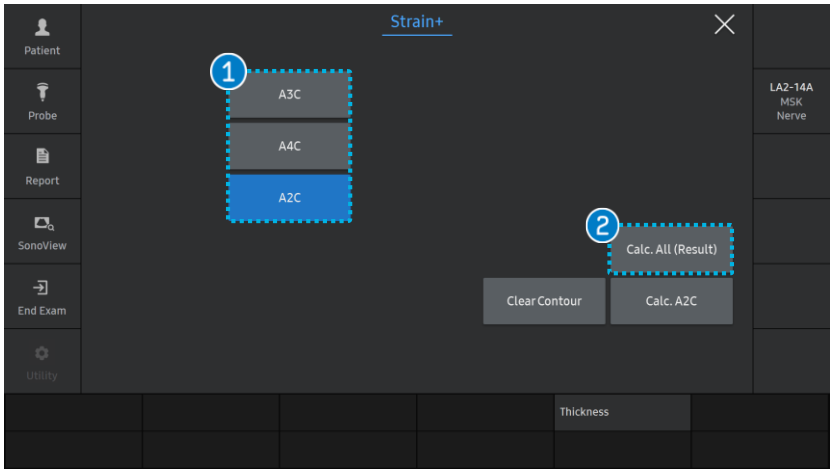




① Select view	Select 'Apical View' located on the upper left of the monitor or [Apical View] on the touch screen for longitudinal & radial strain.
② Input A4C image	ⓐ Select A4C image from the Thumbnail. ⓑ Click the A4C window with the [Set] button.
③ Input A2C image	ⓐ Select A2C image from the Thumbnail. ⓑ Click the A2C window with the [Set] button.
④ Next	Press the [Next] button for the next step. * Then system automatically draws the LV border line.

4. Calculate Strain images

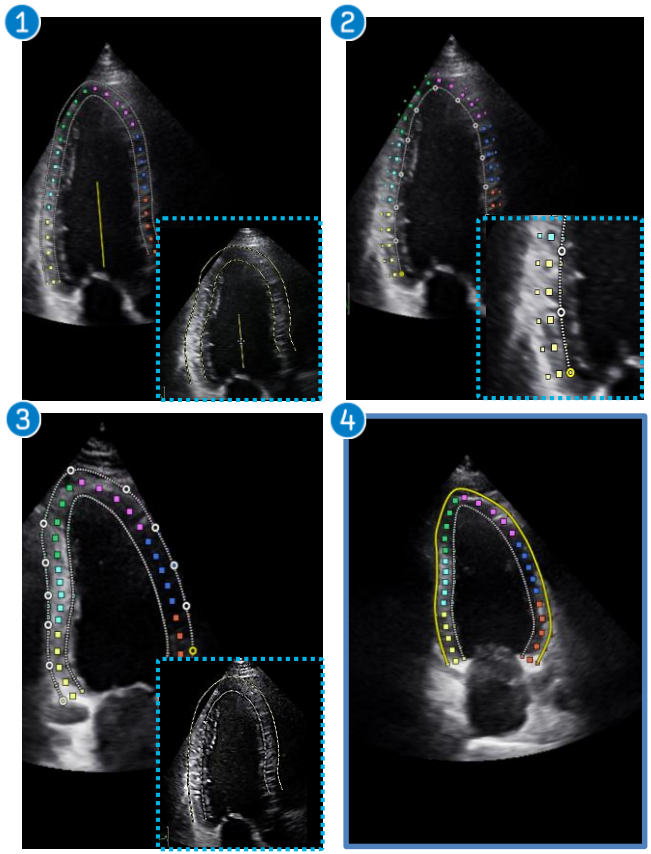
❶ Border tracking	Confirm that the LV border is correctly placed and tracked on each LAX, A4C, and A2C views.
❷ Calculate All	Calculates the Strain analysis on all views (LAX, A4C, and A2C). ※ *The message "Calculating.." will appear on the bottom of the monitor.*

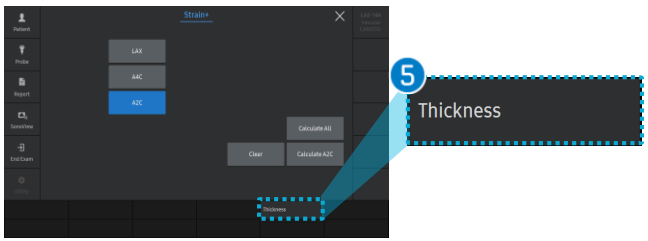


Strain+

5. LV border Contour

※ If border editing is needed, please following as the below.

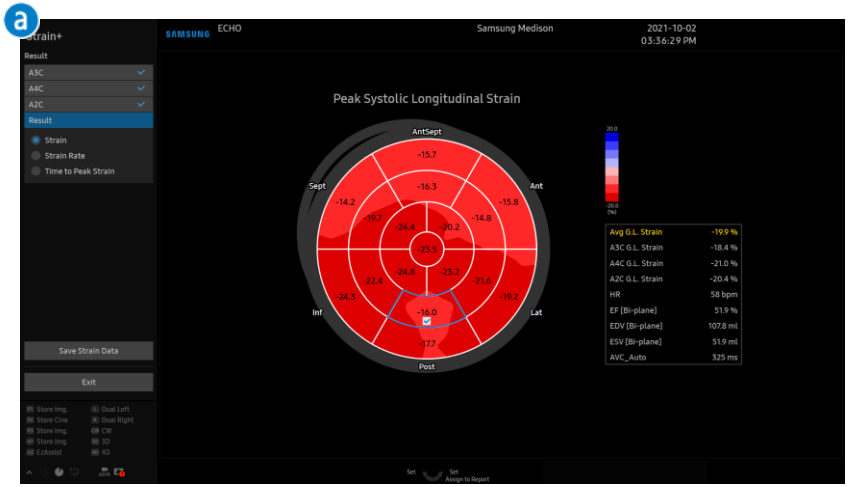




❶ Total contour	When you place the Pointer in the middle of LV, the yellow bar will appear → Press the [Set] button to edit the contour line by using the trackball. → Press the [Set] button again to confirm.
❷ Endocardial point edit	When you place the Pointer close to the endocardial point, the endocardial border line will be changed to yellow point. → Press the [Set] button to edit the points of the line that needs to be modified. → Press the [Set] button again to confirm.
❸ Epicardial line edit	When you place the Pointer close to the epicardial border, the epicardial border line will be changed to yellow point. → Press the [Set] button to edit the points of the line that needs to be modified→ Press the [Set] button again to confirm.
❹ Adjust the thickness at once	If the indicator's positioned little closer to epicardial border line, the epicardial border line will turn to yellow. Then you can easily adjust the thickness.
❺ Thickness	Another way to adjust the thickness is rotating the toggle key.

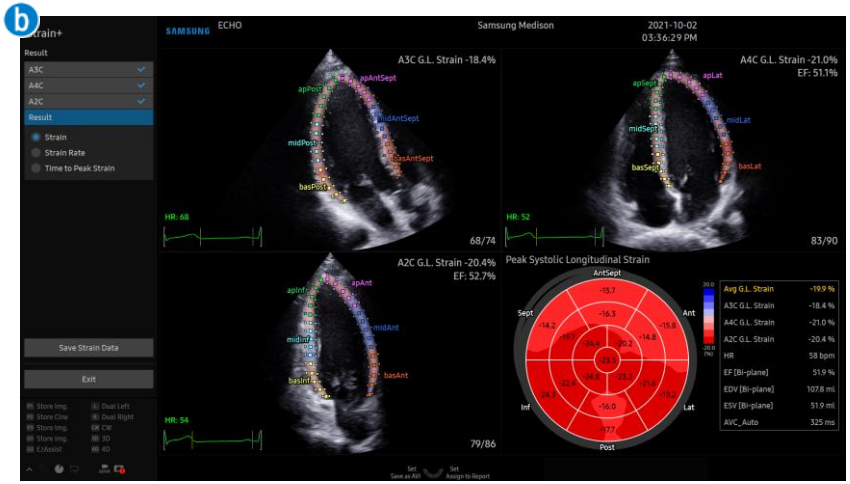
6. Result Display

a

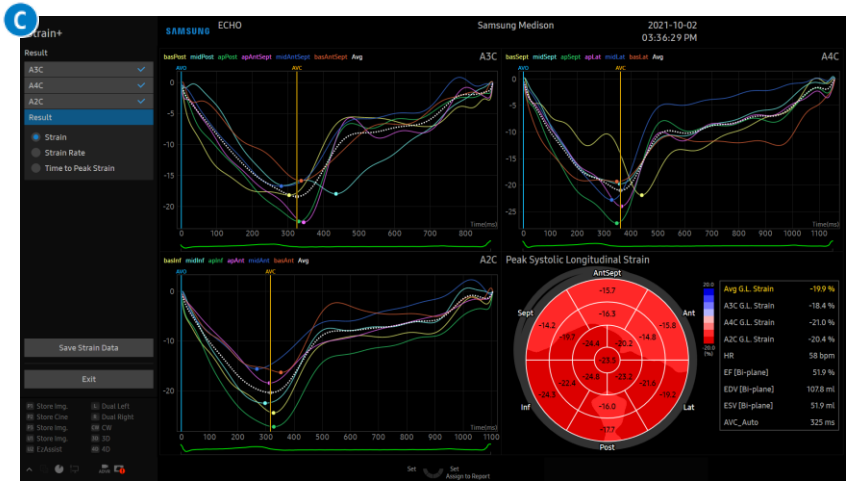


① Result	ⓐ Bull's Eye, ⓑ Bull's Eye images, ⓒ Bull's Eye Graph.

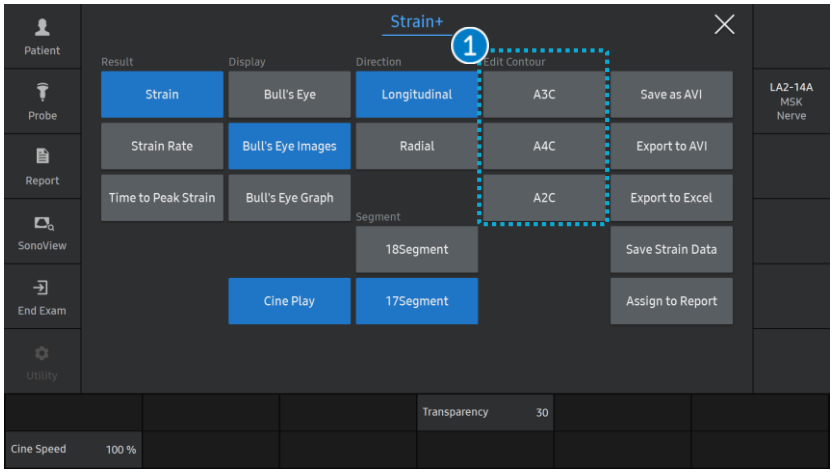
b



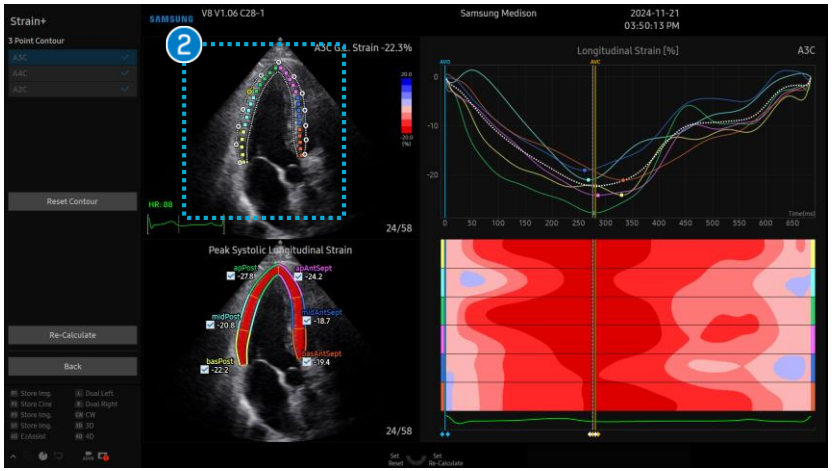
c

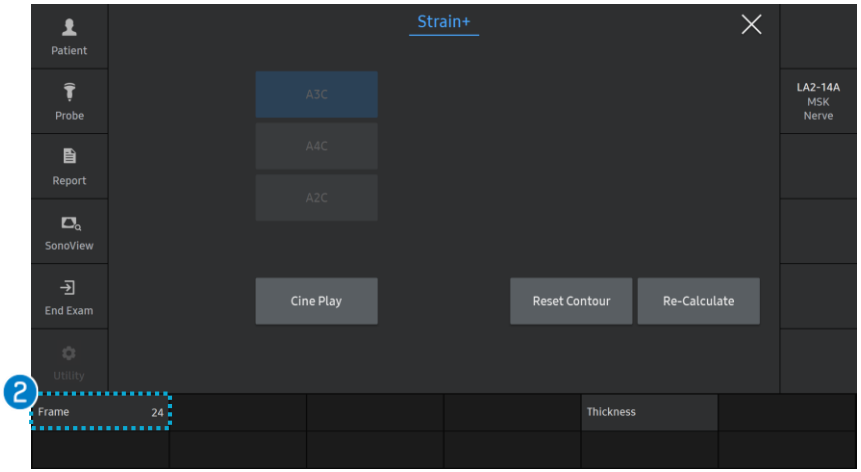


7. Edit LV borderline



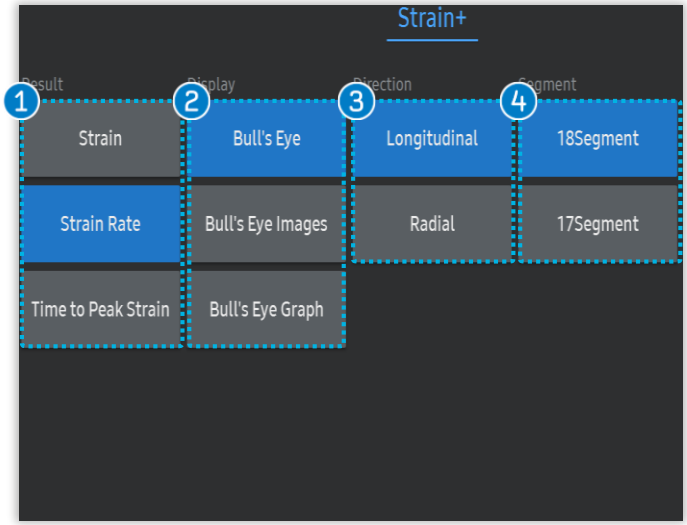
1	Edit Contour	Available edit each view's LV contour in 'Strain+Analysis' page.
2	Frame	Available edit LV contour frame by frame.

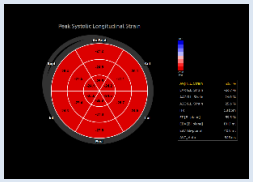
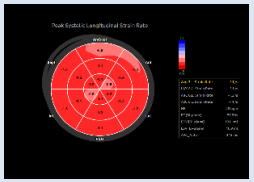
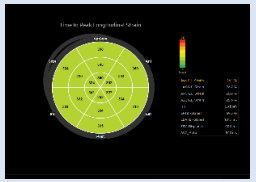
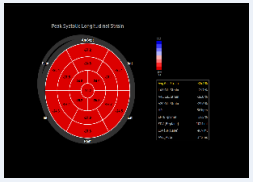
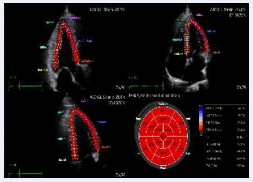
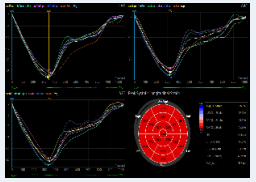
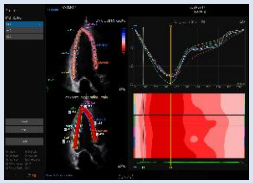
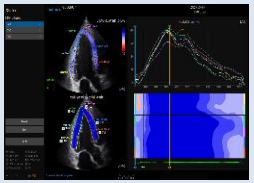
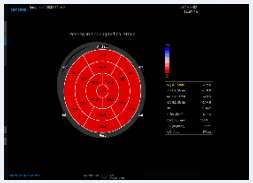
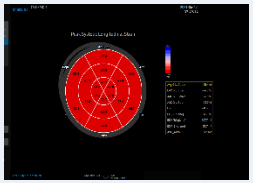




Strain+

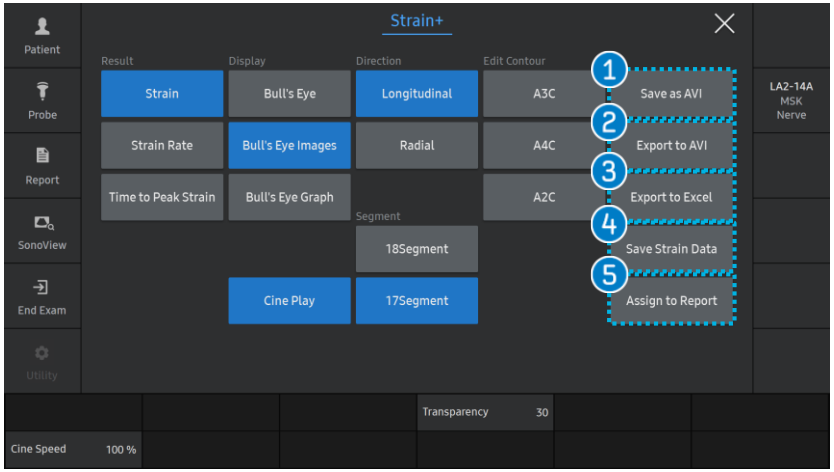
8. Total strain result Display

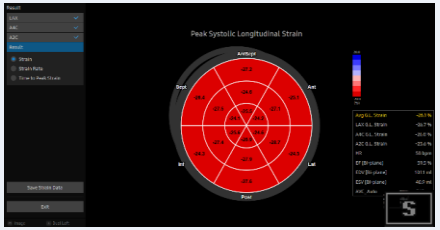


1 Result type	 Strain	 Strain Rate	 Time to Peak Strain
2 Display type	 Bull's Eye	 Bull's Eye Images	 Bull's Eye Graph
3 Strain type	 Longitudinal	 Radial	
4 Segment	 17 Segments	 18 Segments	

Strain+

9. Total strain result



❶ Save as AVI	Saves the result with a captured screen as an AVI file.
❷ Export to AVI	Exports the result and the representative image as an AVI file. ※ *This is only available if a USB is connected.*
❸ Export to Excel	Save the result and the representative image as an Excel file. ※ *This is only available if a USB is connected.*
❹ Save Strain Data	Saves the strain data. When you retrieve a saved image, the strain result will be displayed as well. (Will be marked as S on the bottom of page) 
❺ Assign to Report	Strain+ result is assigned to report.

- The features mentioned in this document may not be commercially available in all countries. Due to regulatory reasons, their future availability cannot be guaranteed.
- Do not distribute this internal document to customers unless relevant regulatory and legal affairs officers approve such distribution.
- This product is a medical device, please read the user manual carefully before use.
- This document is provided to help you understand the feature.
- This Use Quick Guide is based on V8 V1.06
- Disclaimer: Some Images in this content were obtained from other system.