

# ISONIC 3510T, 3510, 2010, 2009

PAUT Inspection of Carbon Fiber (CFRP) Raw Material, Parts, Assemblies



**The following functionality is provided for the inspection of CFRP raw material, parts, and assemblies:**

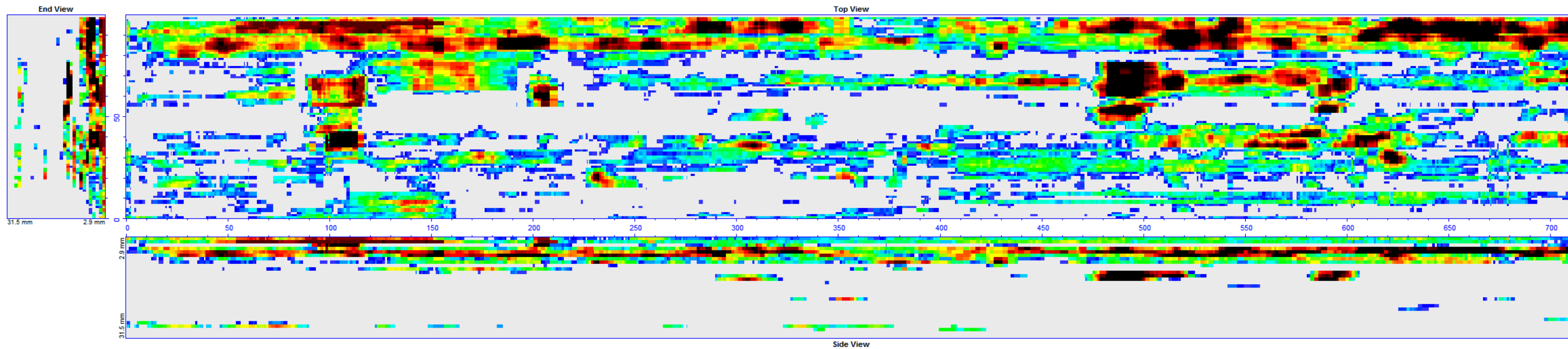
- ⇒ Intuitive Image Guided PA Pulser Receiver with Beam Forming View
- ⇒ Operating Linear Array Probes Equipped with Delay Line
- ⇒ B-Scan (Linear Scan) Cross Sectional Coverage and Imaging
- ⇒ Gate View B-Scan
- ⇒ FD B-Scan - Frequency Domain B-Scan
- ⇒ True-To-Geometry-Volume Corrected B-Scan (Linear Scan) Coverage for Planar Cross Section parts / sections of the material
- ⇒ Encoded and Time based Line Scanning with 100% Raw Data Capturing and Top (C-Scan)- / Side- / End- / 3D- Imaging
  - ⇒ DAC / TCG Normalization
  - ⇒ Independent on TCG Gain Per Focal Law Correction
- ⇒ Automatic Defects Alarming Upon C-Scan Acquisition Completed
- ⇒ Automatic Creation of Editable Defects Lis
- ⇒ Comprehensive Postprocessing Including:
  - Recovery and Evaluation of Captured A-Scans from the Recorded Cross Sectional Views (B-Scan) and C-Scans
  - Recovery of Cross Sectional Views from the Recorded C-Scans
  - Converting Recorded C-Scans or their Segments into 3D Images
  - Off-Line Gain Manipulation
  - Off-Line DAC to TCG / TCG to DAC toggling for all types of stored files (A-Scans, cross-sectional views, C-Scans, etc)
  - Off-Line DAC Normalization of the Recorded Images / DAC Evaluation
  - Off-Line editing of Gain per Shot Correction applied to the stored the Cross-sectional Views / C-Scan data
  - Numerous Filtering / Reject Options ( by Geometry / Position / By Amplitude / dB-to-DAC / etc )
  - Defects Sizing
  - Automatic Creation of Defect List and Storing it Into a Separate File
  - Automatic Creating of Scanning Integrity Report
- ⇒ Automatic creating of inspection reports - hard copy / PDF File

***Inspection of CFRP parts  
Compression wave B-Scan coverage  
32-elements linear array probe with delay line***

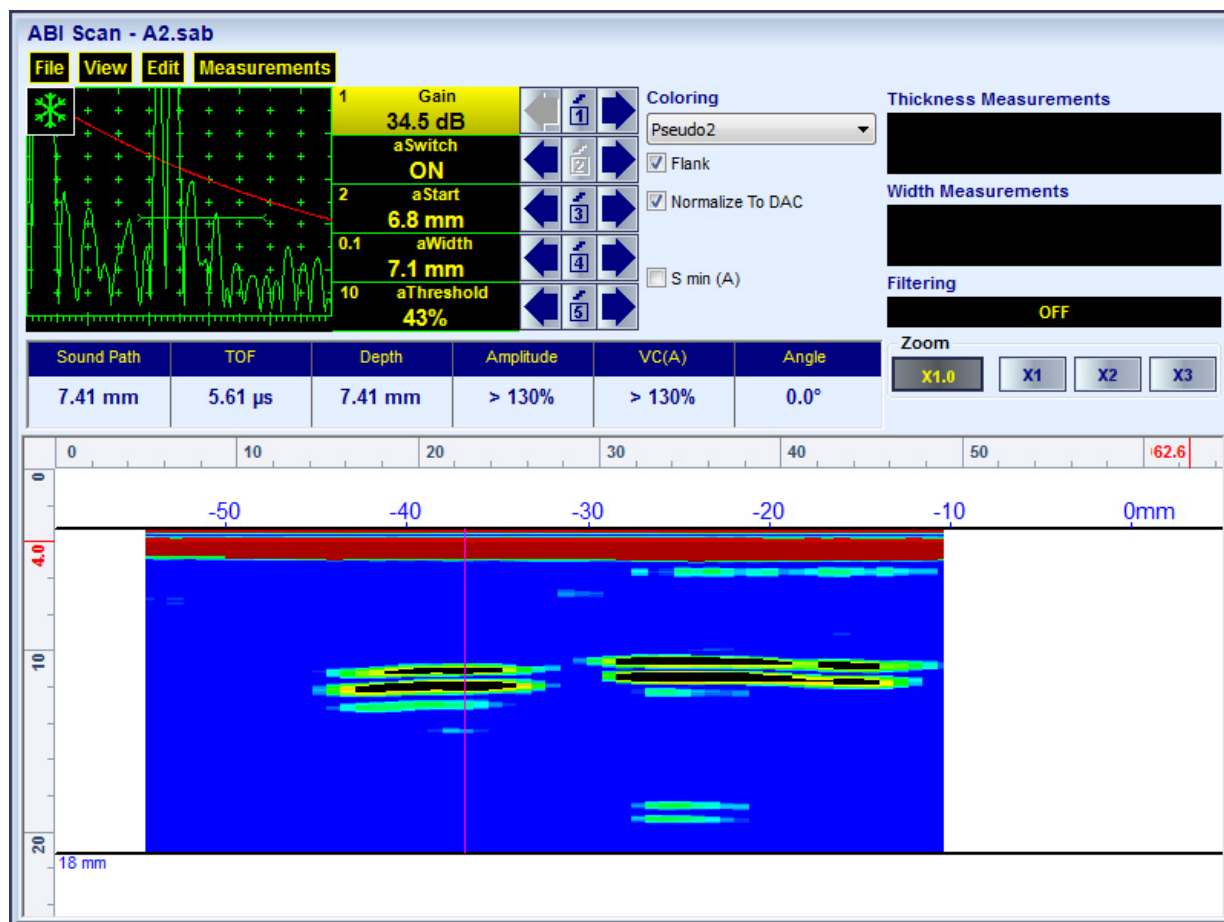




*Inspection of CFRP parts  
 Compression wave B-Scan coverage  
 64-elements water filled rolling linear array probe with flexible silicon tire*



*Inspection of CFRP parts  
Compression wave B-Scan coverage  
64-elements rolling linear array probe*





*Inspection of CFRP parts  
Compression wave B-Scan coverage with C-Scan imaging and  
recording using 64-elements linear array probe with delay line*



*Inspection of CFRP assembly  
Compression wave B-Scan coverage*



*Inspection of heavy thickness CFRP part  
Compression wave B-Scan coverage*

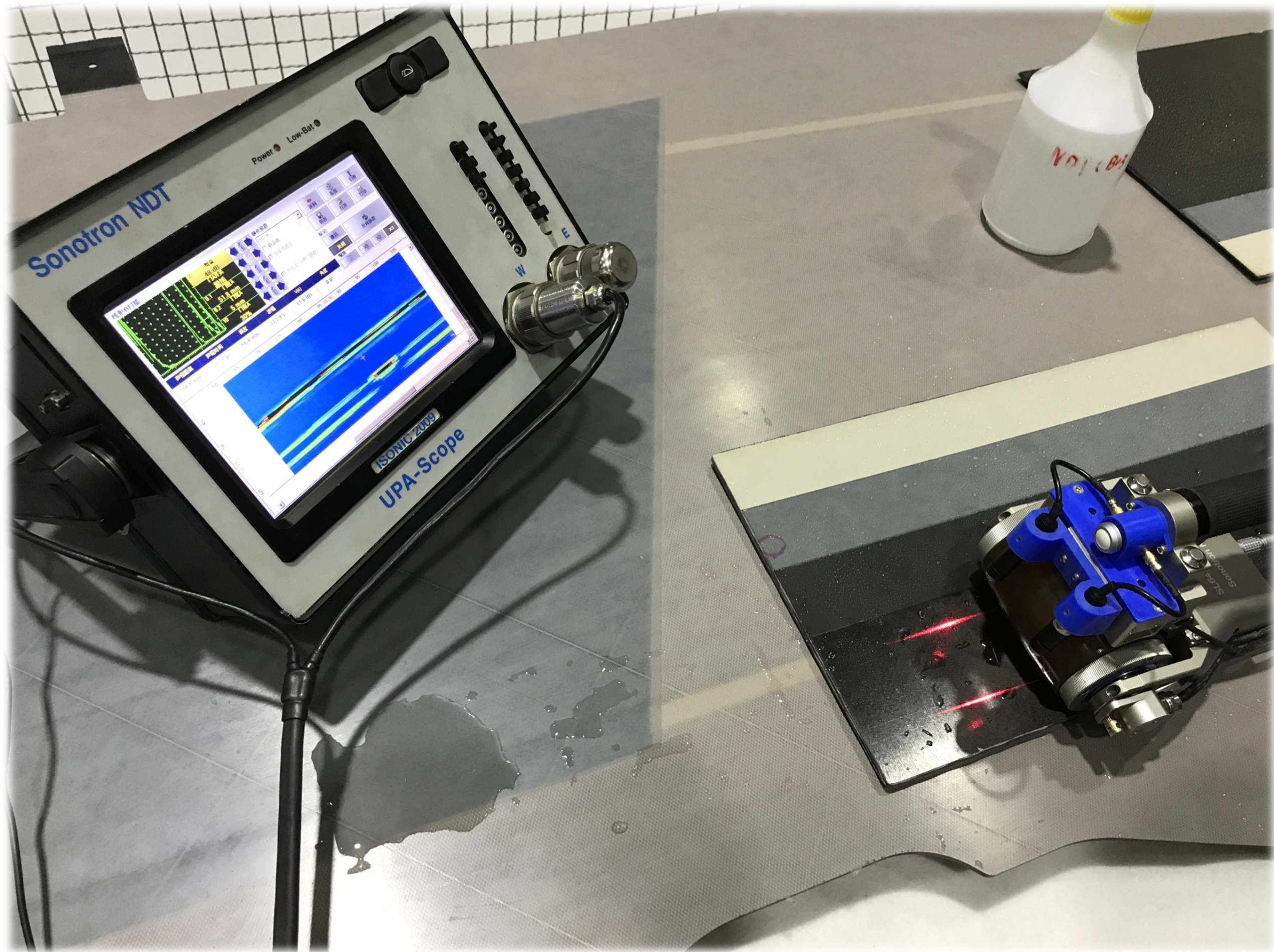


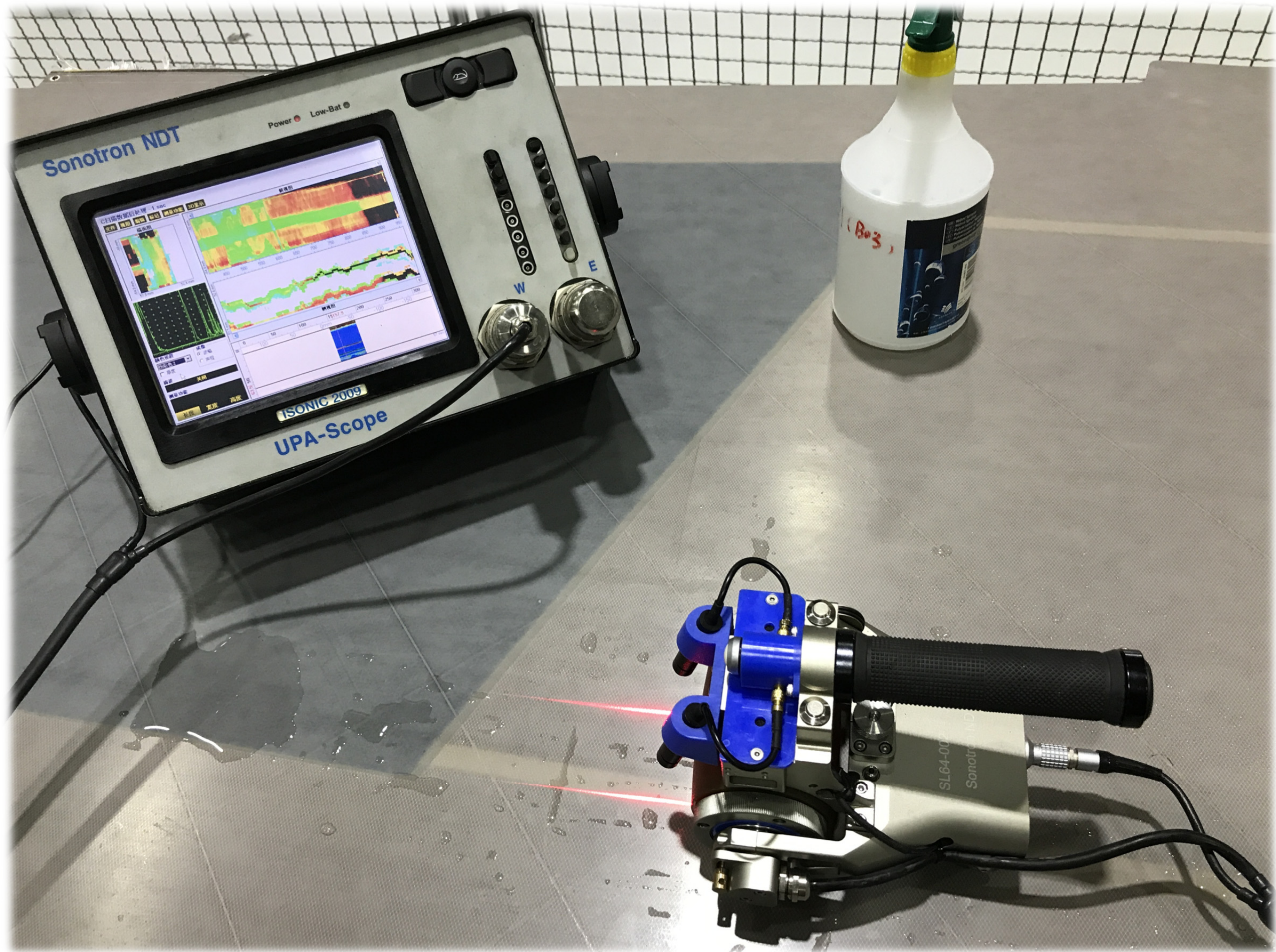
*Inspection of CFRP plate  
Compression wave B-Scan coverage with C-Scan imaging and recording*



*Inspection of CFRP parts  
Compression wave B-Scan coverage  
64-elements rolling linear array probe*





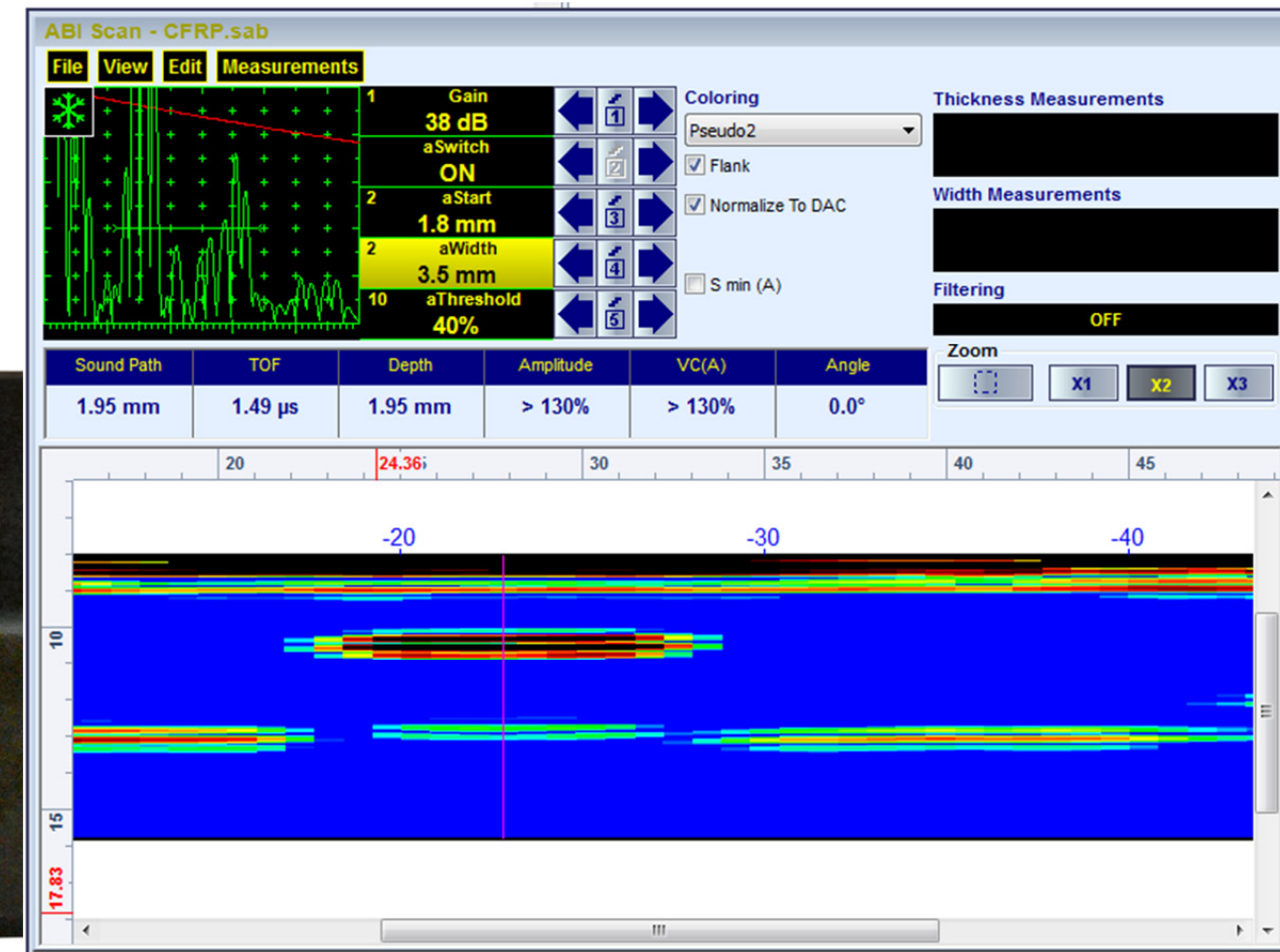




*Inspection of CFRP parts  
 Compression wave B-Scan coverage  
 64-elements linear array probe with delay line*



*Inspection of CFRP parts  
Compression wave B-Scan coverage  
64-elements linear array probe with delay line*



Typical Postprocessing Screenshots

