Scanning Acoustic Microscope TITAN



AcouLab

New Generation Acoustic Solution

SAM-TITAN

Ultrasonic Pulser/Receiver

- Frequency Range 1 - 500MHz
- PRF(Pulse Repetition Frequency): Upto 50KHz

A/D Converter

- Real time 1GHz, 8Bit Sampling Rate (Option : 1.8GHz, 12Bit)

Industrial Computer for Ultrasonic System

- OS : Windows 11
- Monitor : 27"

Mechanical Scanner



- Scan Axis (Linear servo motor)
  Max. Speed 1,000mm/s
  Repeatability +/-2 micron
  Encoder Resolution 0.5micron

- Index Axis
  Micro-stepping motor with lead screw
  Step Resolution 5micron

- Vertical Axis
  Micro-stepping motor with lead screw
  Max. Stroke 80mm
  Vertical Resolution 2.5micron

- C- Scanning Area with T-Scan : 700mm x 700mm (300mm_T-Scan)

- Main Unit SIZE : 1,380mm X 1,400mm X 1,600mm

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SAM-TITAN

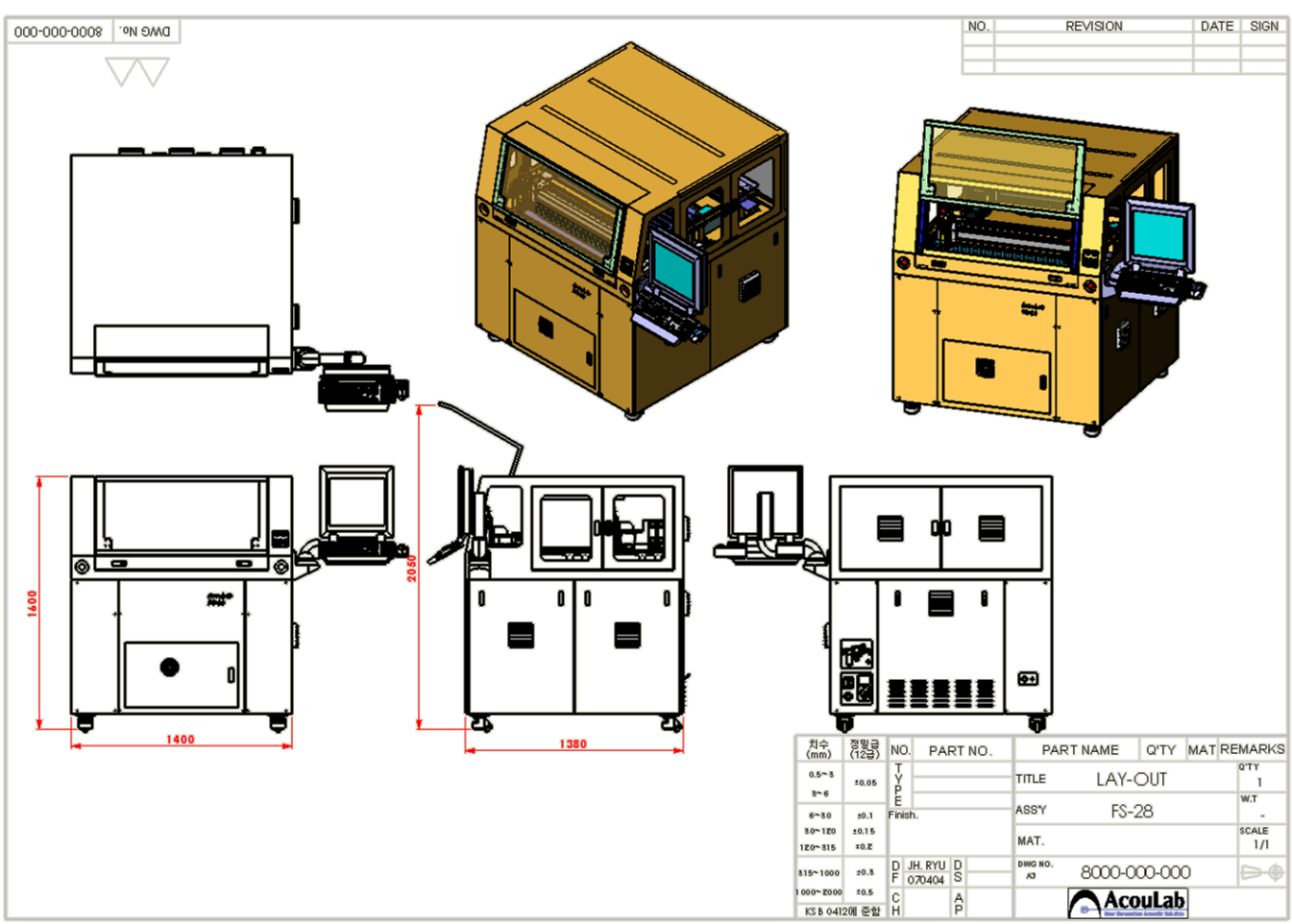
Immersion Tank

- Dimension : 946mm x 916mm x 135mm
- Material : STS304

General

- Weight : Approx. 500kg
- Electric Power : AC220V / 1Kw(5A) / 1Phase

Lay-out

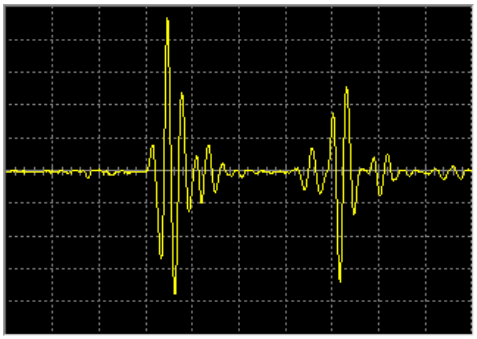


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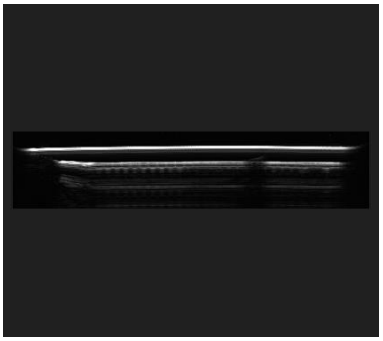
SAM-TITAN

ScanUp Software

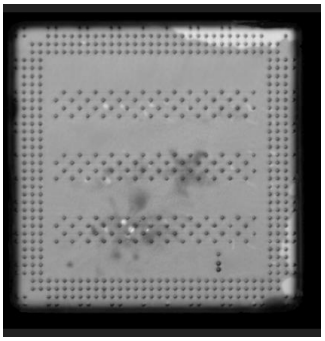
- Windows 11 base software for system control and image analysis Automatic and manual setup.
- Automatic focusing, Auto-sizing & Auto-gate.
- Pulse echo and thru transmission modes of operations.
- A, B, C-Scan, FFT-Scan TOF-3D and Virtual 3D display.
- C-Scan image for amplitude, time of flight and phase inversion FFT for transducer evaluation.
- Size measurement of defects and delamination.
- Automatic report generation.
- Simultaneous Pulse Echo and Thru Scan inspection. (Optional)



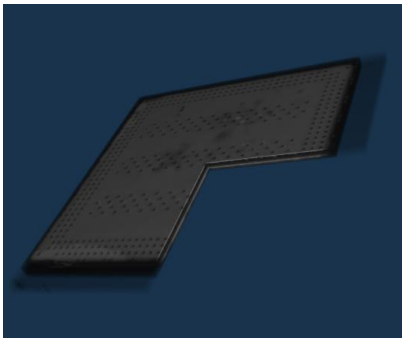
A-Scan



B-Scan



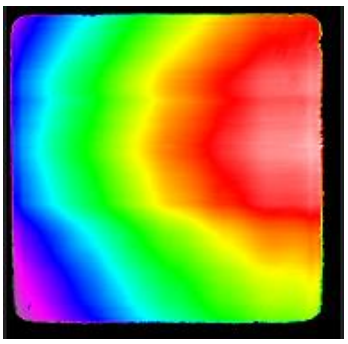
C-Scan



Virtual 3D



TOF 3D

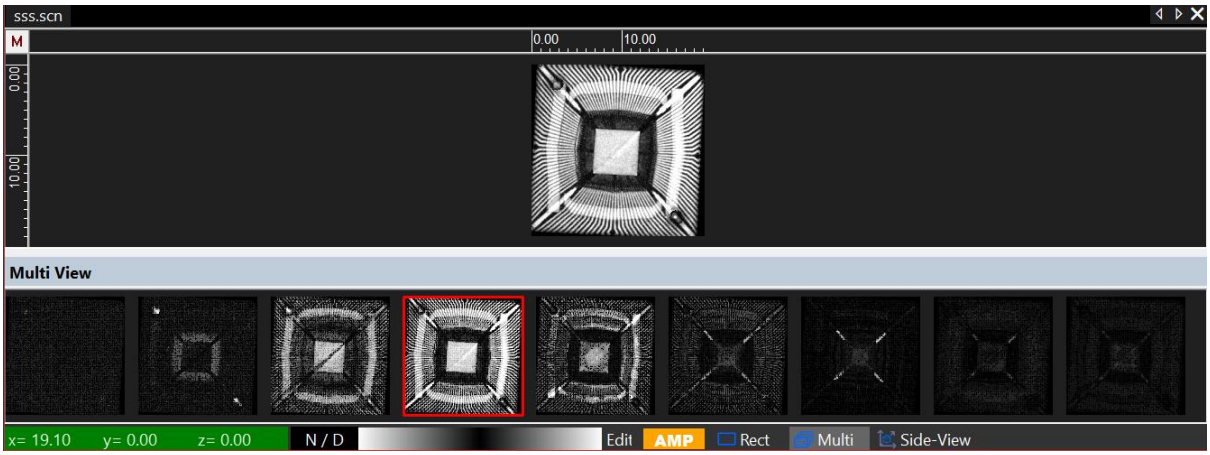


Surface

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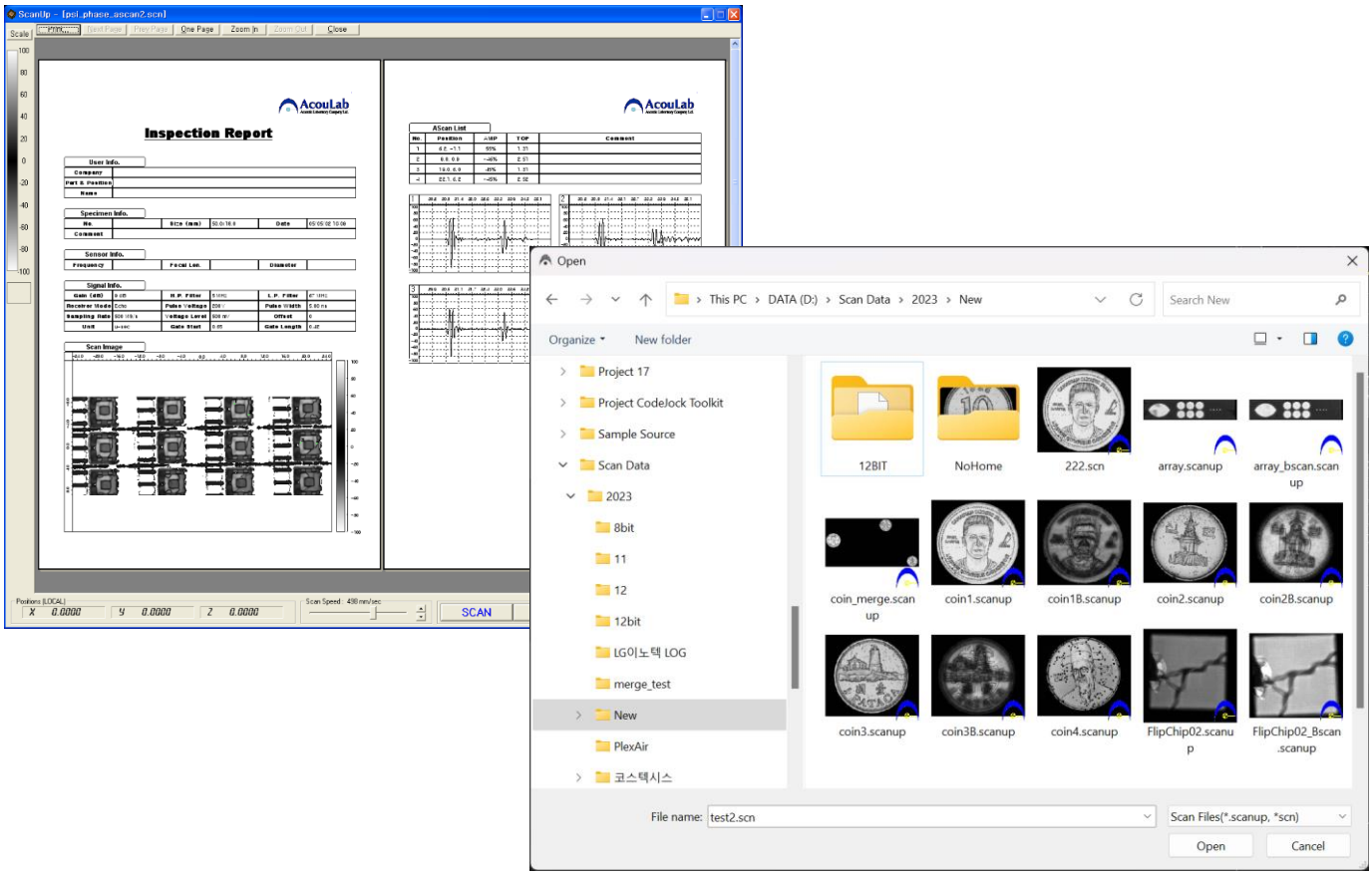
ScanUp Software

- Multi-Layer Scan (Upto 99 layers), Tray Scan and Specific Area Scan.



- Inspection Report.
  A function for pre-entering information required when creating an inspection report, for preview and printer output.

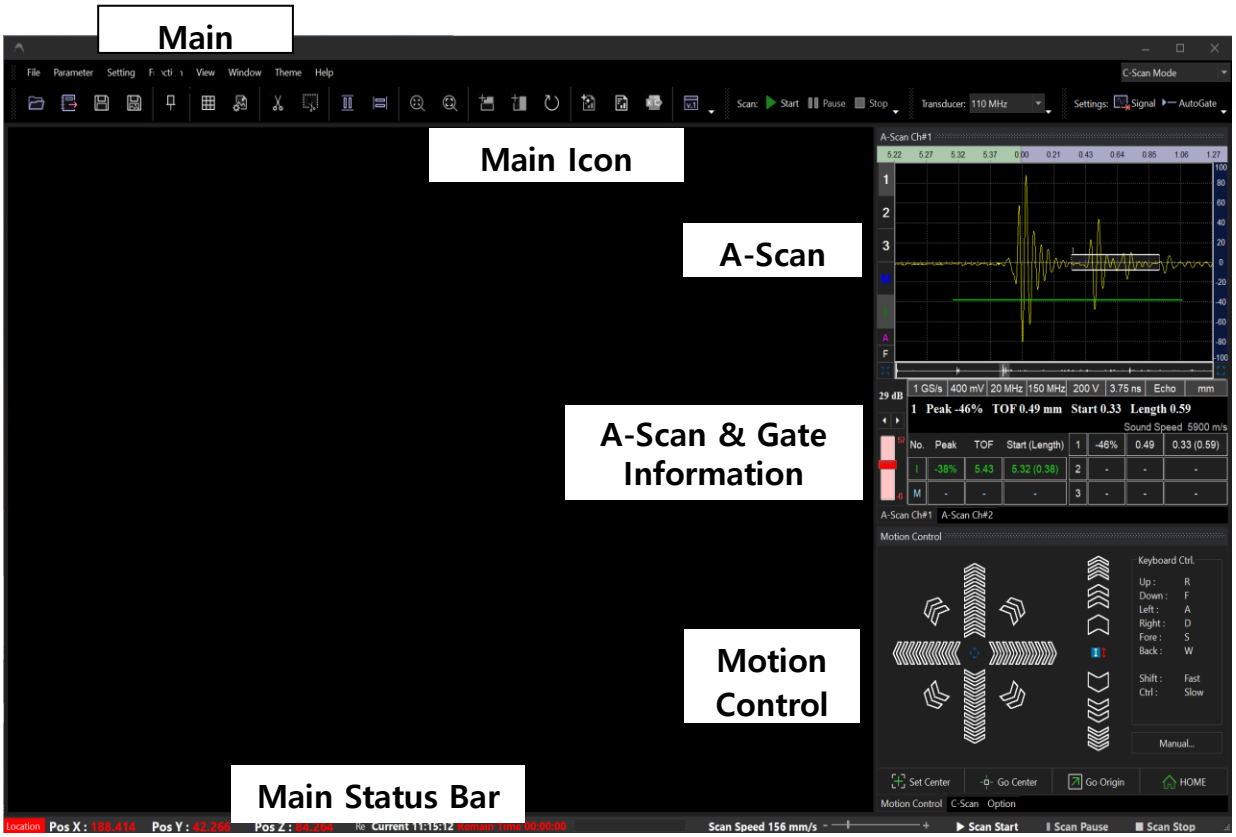
- Preview
  Can preview the inspected image through Windows Explorer.



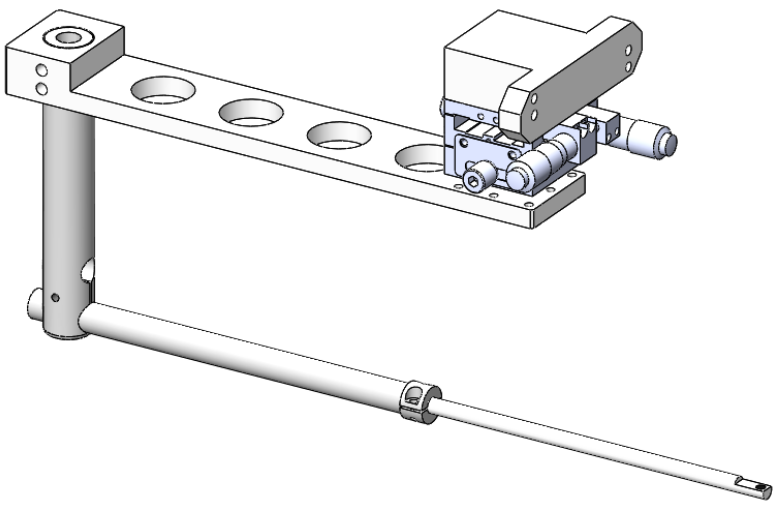
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ScanUp Software

- ScanUp Program User Interface.



Convenience of works

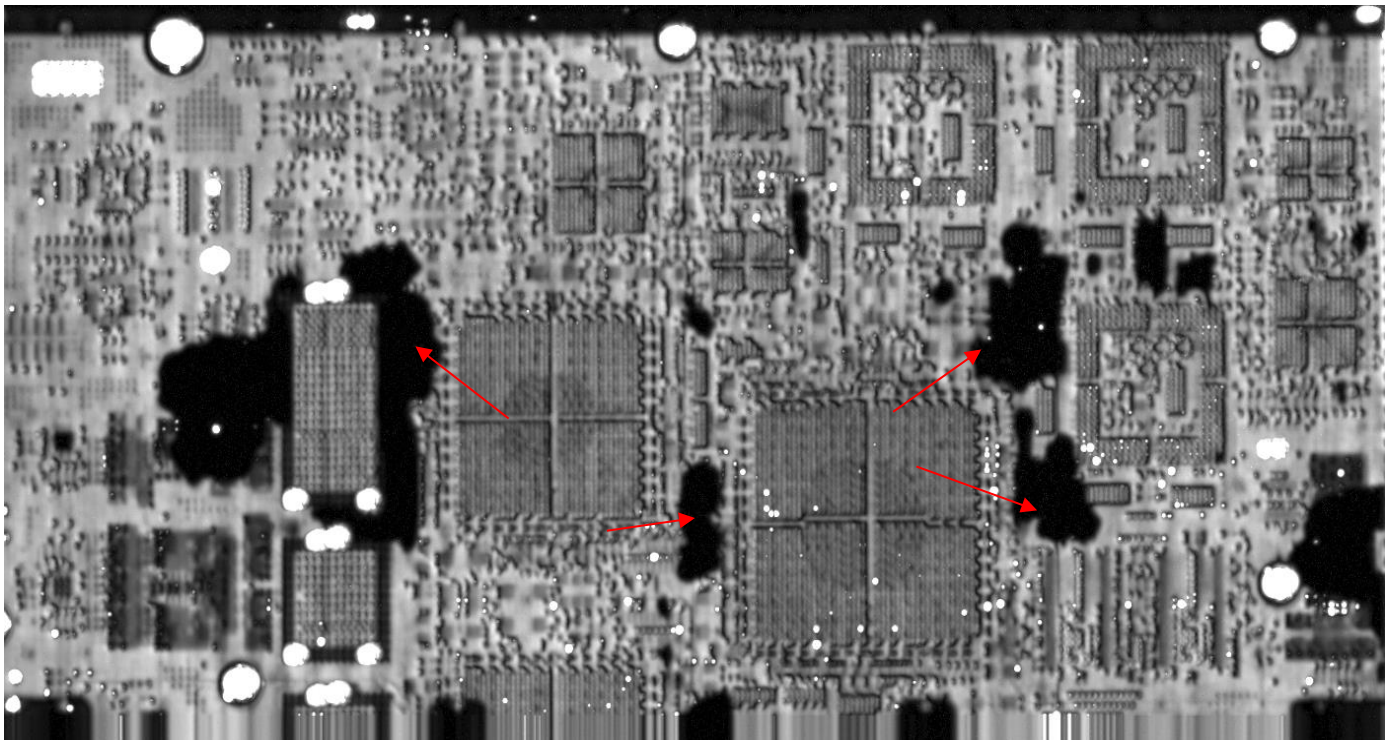


Easy Thru scan Alignment

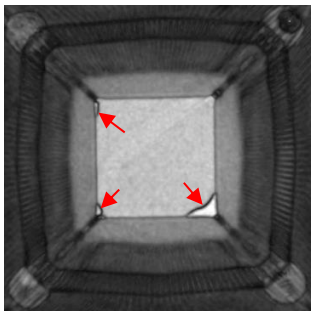
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Application

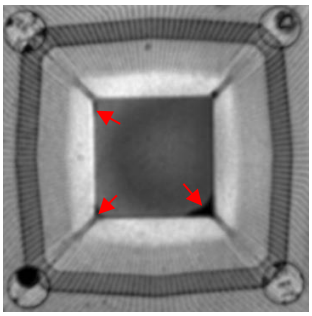
C-Scan (Thru Scan)_Delamination(PCB)



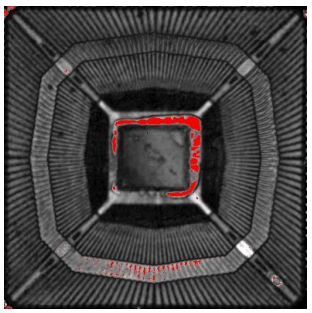
C-Scan (QFT)



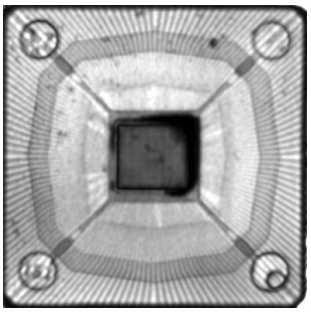
Echo Scan



Thru Scan



Echo Scan



Thru Scan

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