

# Industrial Ultrasonic Products



- ✓ Phased Array & TOFD Flaw Detector
- ✓ Ultrasonic Flaw Detector
- ✓ Ultrasonic Thickness Gauge
- ✓ Ultrasonic Rail Flaw Detector
- ✓ Multi-Channel Ultrasonic Flaw Detector
- ✓ PC Analysis Software
- ✓ Crawlers & Probes & Accessories

# SIUI



# Shantou Institute of Ultrasonic Instruments Co., Ltd.



## About SIUI

SIUI ISO certified, has been dedicated to R&D, manufacture and sales of ultrasonic products for 40+ years. SIUI has established advanced manufacture technique and widespread sales network, with its products serving in machinery, metallurgy, railway, shipbuilding, aircraft and building. SIUI has a complete product line, including Phased Array & conventional ultrasonic flaw detectors, thickness gauges, and up to 1000 types of probes & accessories.



ISO9001 Certification



European CE Marking

Since 1995, SIUI has been certified by lots of domestic and overseas authorities.

- Product Certification issued by Ministry of Railway.
- An affiliated unit to the Product Quality Supervision and Test Center for Mechanical Industry Ultrasonic Instruments.
- Certified corporate technology center in China's ultrasound industry.
- Compliant with European, American and Japanese related standards.

SIUI is a member of professional NDT societies.



## SIUI Customers



# High-end Phased Array & TOFD Flaw Detector

## SyncScan 2

### Maximize your efficiency for Phased Array & TOFD



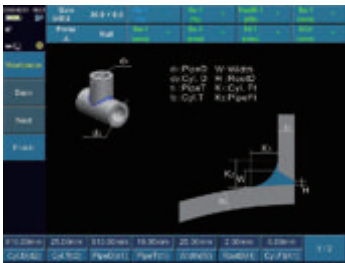
SyncScan 2 is a 32:128PR PAUT flaw detector with optional 2-ch TOFD, which can maximize your efficiency for PA and TOFD.

### Main Specifications

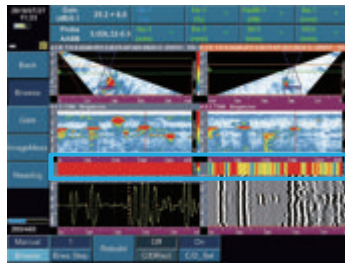
- IP 65
- 4kg with battery
- Dimension (W×H×D): 284×220×105 (mm)
- 8.4" TFT LCD touch screen, 800x600 pixels
- Faster scan speed (Approximately 3 meters/minute)

### Superior Features

- 1 or 2 ch-TOFD for your selection by license activation.
- 32-channel PA is more suitable for inspection on extra-thick wall and high-attenuation material.
- 32-channel PA and 2-channel TOFD work simultaneously on pressure vessel inspection.
- TOFD can measure thickness up to 100mm.
- Support pitch and catch (PR) mode, corrosion inspection with dual linear/matrix array probe.



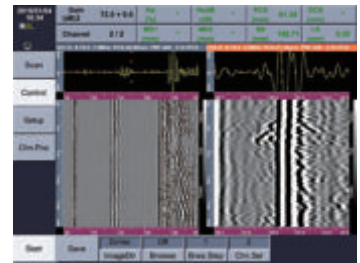
Various weld types for different on-site application.



Real-time coupling monitoring for PA long pipe solution.



Free 2D corrosion for simplified operation.



2 ch-TOFD for thick workpiece.



Pipe weld inspection



Austenitic weld inspection

# Versatile Ultrasonic Flaw Detector

## SyncScan

### Minimize your cost for Phased Array & TOFD



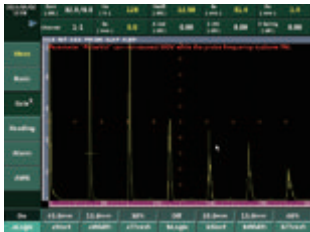
SyncScan incorporates PAUT, TOFD and ultrasonic thickness measurement functions into one compact unit, which can minimize your cost for PA and TOFD.

### Main Specifications

- IP65
- 3.75 kg with battery
- Dimension (W×H×D): 284×220×90 (mm)
- 8.4" TFT LCD touch screen, 800x600 pixels

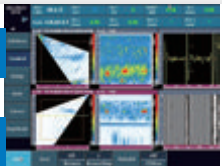
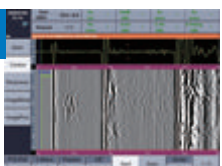
### Superior Features

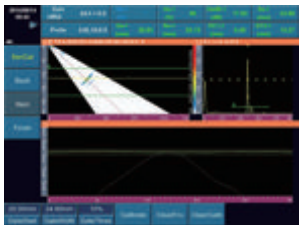
- Smart test wizard guide you step by step from creating your PAUT/ TOFD setups to reports.
- Multiple advanced functions optimises the daily workflow.
- Upgradeable from Conventional UT to PA/ TOFD/ TG.



Conventional UT

- \* PR: pitch & catch function.
- \* Thickness measurement function is available for all versions.
- \* Please define version before purchase.

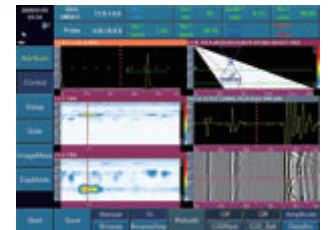
Version 1: upgradeable to 16:128 PAUT + 1-ch TOFD/ UT	
Version 2: upgradeable to 16:64 PAUT(PR) + 1-ch TOFD/ UT	
Version 3: upgradeable to 1/2/4-ch TOFD/ UT	



Friendly calibration wizard guide users for easy setup.



Flat weld solution including various weld types, raytracing capability and overlay help to locate the flaw position visually.



Simultaneous inspection of PAUT and TOFD can decrease undetected rate.



Tube weld inspection



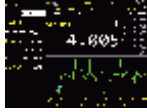
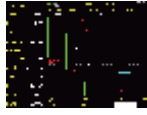
PA corrosion solution

# Ultrasonic Flaw Detector & Thickness Gauge

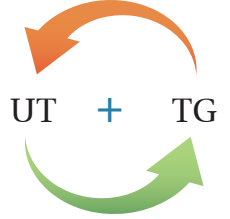
## Smartor



Version 1: Ultrasonic Testing



Version 2: Thickness Gauge



Wrist strap for one-hand operation



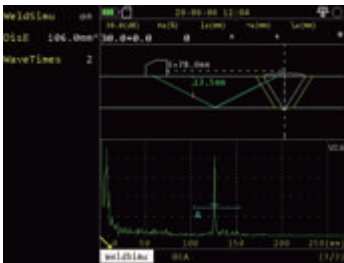
Back strap to free hands

### Main Specifications

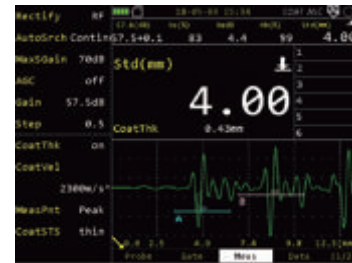
- IP 66
- 0.9kg with battery
- Dimension (W×H×D): 198×128×52 (mm)
- 5.7" TFT LCD, 640x480 pixels

### Superior Features

- Easy to upgrade by on-line license.
- Smart test wizard guides users step by step from calibration to final testing.
- Ultrasonic testing functions: DAC, AGC/DGS, TCG, B-Scan, FFT (probe spectral analysis), CSC (curved surface correction), flat weld simulation, crack height measurement, BEA (backwall echo attenuator), AWS, API 5UE.
- Thickness measurement functions: A-scan thickness measurement (TG ECHO included), dataset management, CoatMode, B-Scan, MultiLayers, Vpath, TDG and temperature compensation.



Flat Weld Simulation including 14 weld types and raytracing capability help to locate the flaw position visually.



Coat and base material thickness can be displayed at the same time.



Ultrasonic weld inspection



Ultrasonic thickness measurement

# Portable Ultrasonic Flow Detector

## Advanced Model

# CTS-9009PLUS CTS-9009

## Popular Model

# CTS-9006 CTS-9005



- Small Size
- Low Consumption
- High Performance

- Easy Operation
- Multi-Purpose
- Lightweight

## Application

It is suitable for inspecting flaw position and size, which can be widely used for various detection demands, such as pipes and tubes, welding lines, pressure vessels and airplane parts.



# Ultrasonic Thickness Gauge

## Advanced Model

# CTS-30C

## Popular Model

# CTS-30A/B



- Multi-probe Selection
- Thru-coating Measurement

- Compact Size
- Light Weight
- Low Consumption
- Long Operation Duration

## Application

Machinery, chemical, ship building, aeronautical and aerospace industries.



# Ultrasonic Rail Flaw Detector

## Rail Version SyncScan



SyncScan (rail version) is suitable for phased array rail weld inspection.

### Superior Features

- Compact and Portable
- Rail Testing Wizard
- PA Electronic Scanning
- High defect Inspection Rate
- Wide Coverage and High Efficiency



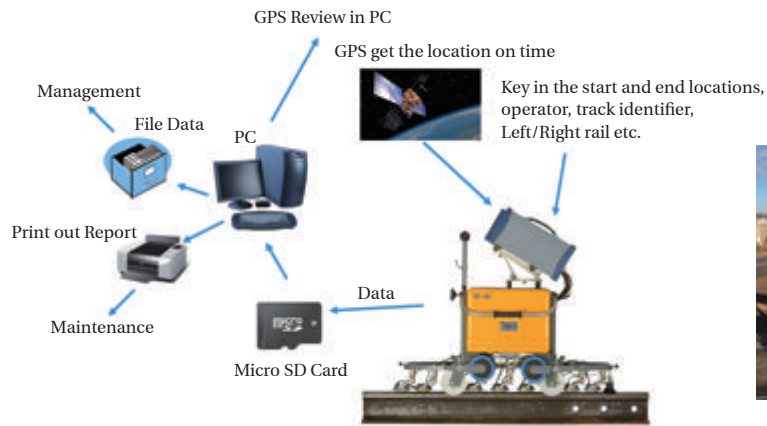
## Hand Push RailRover



RailRover is suitable for ultrasonic rail internal defects inspection.

### Superior Features

- 9 Individual Transmit/Receive Channels
- A & B Scan Display and Recording
- Self-Testing Function on Probes
- GPS Location System
- DAC on All Probes



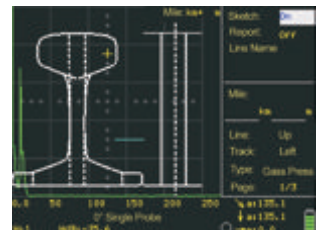
## Hand Held RailTek



RailTek is suitable for ultrasonic rail weld inspection.

### Superior Features

- Compact and Portable
- Up to Seven Ultrasonic Probes can be Connected
- Easy Operation
- Low Consumption
- Dynamic Recording



# Multi-Channel Ultrasonic Flaw Detector Series

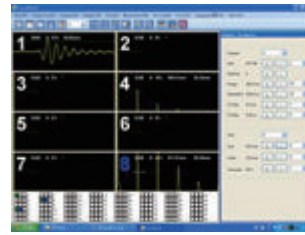


## CTS-5XX1

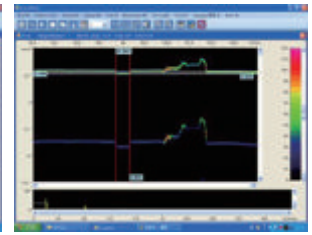
Multi-Channel Ultrasonic Flaw Detector series are based on PC platform. By working with probe detection and mechanical devices, this new series can achieve automatic ultrasound testing with high accuracy, reliability and high efficiency.

### Superior Features

- It can support from 32 to 128 channels (four types of housing for 32/64/96/128 channels).
- Each PCB has 8 independent T/R channels.
- For the same PCB, any transmission channel can combine with any receiver channel. Each PCB can have combination up to 8 groups.
- For the same PCB, the channels work in turn. Different PCBs can work at the same time or work in turn.



A-Scan

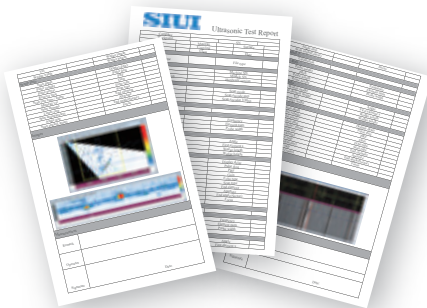


B-Scan

## PC Analysis Software

### SuporUp

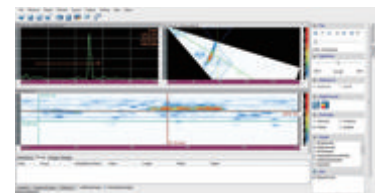
SuporUp is the data analysis software for SyncScan 2, SyncScan, Smartor, SyncScan(Rail Version).



- Dataplay
- Data Analysis Offline
- Image Processing
- Defect Measurement
- Report Generation



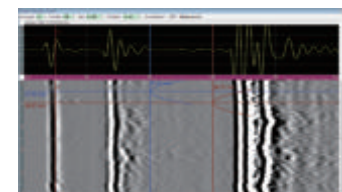
PA emulator mode



PAUT file measurement



Corrosion file measurement



TOFD file measurement

### RoverUp

RoverUp is the data analysis software for RailRover and RailTek.

- Browse Function
- Information Display
- Measurement Function
- Report Generation





# Ultrasonic Solutions

## Austenitic Welds



● PAUT testing

## Small Tube Welds



● Low-profile PA testing

## Medium Pipe Welds



● Low-profile PA testing

● PAUT+TOFD testing

## Long-distance Pipe Welds



● PAUT+TOFD testing

## Flange/ Elbow Pipe Welds



● 2 PA testing

## Flat Welds



● 2 PA testing

● TOFD testing

## Pipe Corrosion



● PA corrosion

## Ultrasonic Solution for Rail



● PA testing for weld

● Ultrasonic testing for internal defects

● Ultrasonic testing for weld

# Ultrasonic Crawlers

## Crawler Technical & Application Matrix

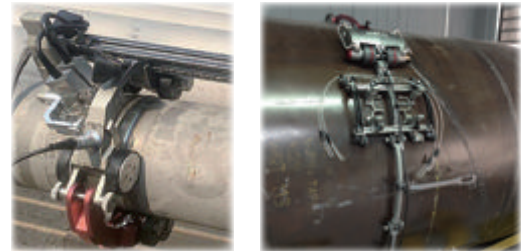
Crawler Model		CUS-01	CPS	LPS	PTS-P05	TSE	PES-02	UHTS-X02	MPS-01A	MPS-02
Inspection Technology	Conventional UT/TG						●			
	PA	●	●	●	●	●	●	●	●	●
	TOFD	●	●	●	●	●		●		
	PA & TOFD		●			●		●		
Application	Weld	●	●	●	●	●	●	●		
	Corrosion	●							●	●

### CUS-01



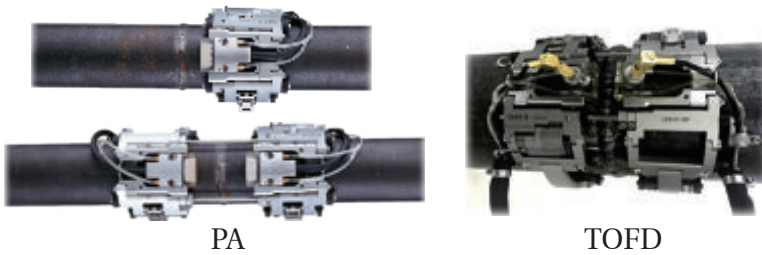
- Modular design for three combinations
- Automatic two-axis PA corrosion mapping
- Automatic PA or TOFD weld inspection

### CPS

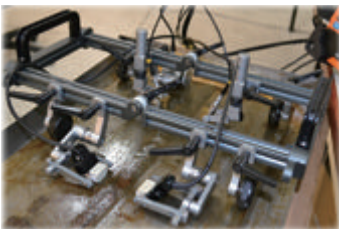


- Special chain design
- Manual or automatic scanning
- Up to 2 PA +2-ch TOFD probes
- For medium & large pipe welds

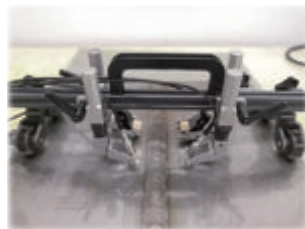
### LPS



- Simple buckle design for quick change links
- Compatible with PA or TOFD probes
- For small & medium pipe welds
- For flange & elbow pipe welds



UHTS-X02



TSE Series



PTS-P05



PES-02 Series

### MPS



MPS-01A  
(Immersion testing)



MPS-02  
(2D scanning)

### Irrigation Device



Manual (5L)  
IH-05



Auto  
IA-01



Auto (18L)  
IA-02

# Probes and Accessories

The line of ultrasound probe includes normal, angle, dual, immersion, composite probes, TOFD probes and phased-array probes, which can meet different application requirements .

In addition, OEM orders can be accepted subject to specifications and purchase quantity.

## Phased Array Probes



## TOFD Probes



SIUI can provide:

- A series of PA and TOFD probes for different kinds of inspections
- Customization of PA and TOFD probes with different specifications
- A and TOFD probes with different connectors compatible with equipments from other manufacturers.

## UT Probes



## Wedges



## Calibration Blocks



## Probe Cables



# SIUI

Shantou Institute of Ultrasonic Instruments Co., Ltd.

Add: #77, Jinsha Road, Shantou 515041, Guangdong, China

Tel: +86-754-88250150 Fax: +86-754-88251499

E-mail: [siui@siui.com](mailto:siui@siui.com) Website: <http://www.siui.com>

