



### Features

- Four ways to present waveform: positive half-wave, negative half-wave, full wave and radio frequency.
- Automatic gain adjustment, defect equivalent calculation and peak memory function
- Two high resolution scanning mode: A and B
- Display of echo envelope
- Two individual gates setting and alarming function.
- 32 detecting channels are available with separate detecting parameters and DAC (Distance Amplitude Correction) curves in every channel.
- Automatic formation of DAC curves, and 30 points 'data can be recorded infinitely, adjustable offset curves and gain correction functions are available.
- Three detecting modes (single-probe, dual crystal probe and transmission) with automatic calibration function
- Connected to PC via USB interface with advanced software for data analysis and management.
- Data and documents are managed with file allocation table (FAT) system, making the management of inspection data more convenient, reliable and faster
- Super large memory up to 32M, 1000 echo data can be stored.
- EL Highlight matrix display (no drift with angle, temperature or sunlight)
- Brand new digital signal circuit is designed for TUD310
- Digital signal processor (DSP) is used for signals analyzing, making circuit noise reduced properly and waveform more stable.
- EPSON ink-jet printers can be connected with TUD
- Real-time waveform display and review

# TUD310

ULTRASONIC FLAW DETECTOR

### Standard Delivery

• Main unit	1	• Warranty card	1
• Power adaptor	1	• Instruction manual	1
• Neck strap	1		
• Cable for probe	2		
• Straight probe (2.5MHz, Ø20)	1		
• Angle probe (5MHz, 8×9K2)	1		
• Couplant	1		
• Flash disk	1		
• Screw driver	1		
• TIME certificate	1		

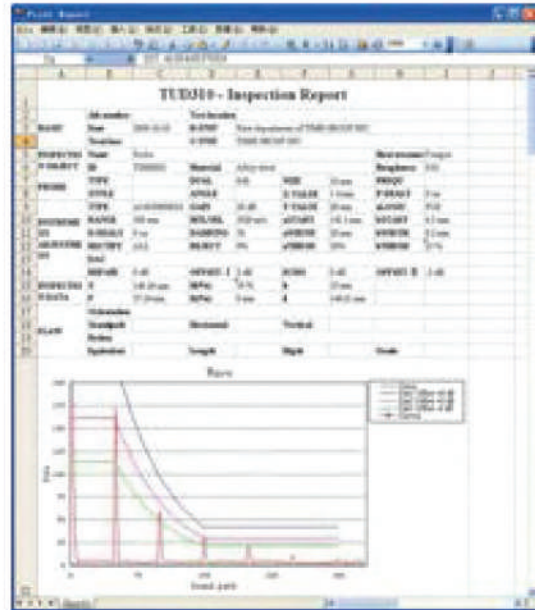
### Optional Accessory

- Connecting cable
- Software for TUD310
- Various probes
- EPSON ink-jet printer

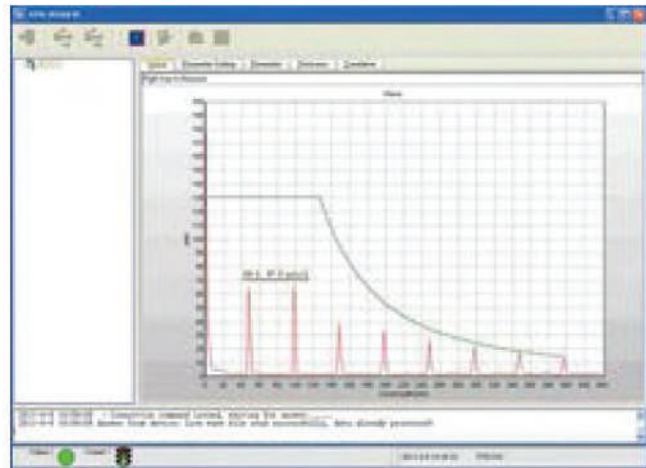
### Technical Specification

Items	Description
Scanning range	2.5 mm ~9999 mm
Scanning resolution	0.1mm (2.5mm ~100mm) 1mm (100 mm ~5000mm)
Gain range	0dB ~110 dB
D-delay	-20µs~+3400µs
P-delay	0µs~99.99µs, resolution 0.01µs
Sound speed	1000 m/s~9999m/s
Bandwidth	0.2MHz~15MHz (Low 0.2~1 Mid 0.5~4 High 3~15)
Vertical linearity accuracy	≤3%
Horizontal linearity accuracy	≤0.2%
Dynamic range	≥32dB
Rectification	Positive half wave, negative wave, full wave, and RF
Sensitivity leavings	≥60dB
Test mode	Pulse-echo, dual and through transmission
Pulser	Spike excitation pulser
Damping	50ohms, 150ohms and 400ohms
Reject	Linear, 0-80% of full screen, variable in steps of 1%
Unit	Metric/inch
Interface	RS232 / USB
Printer	EPSON ink-jet printers
AC requirements	85-264V AC/1.0A, 47-63Hz
Temperature	-10℃ ~40℃
Humidity	20%~90%RH
Power supply	Li battery 4×3.6V 4000mAh
Charging time	4~5hours
Dimension (mm)	243×173×70
Weight (g)	1470

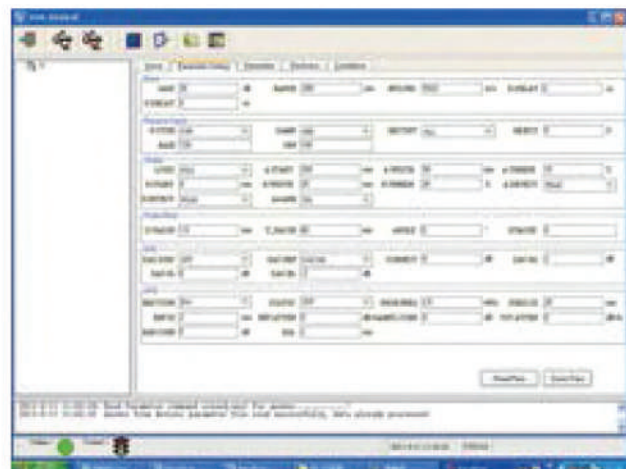
This program is used to display measurement data and graph in real time, edit and store data, prepare flaw detection report and print etc.



Inspection report



Wave data



Setting parameters

**TUD310**

SOFTWARE An D PROBES