

Ultrasonic Flaw Detector TUD300/310/320



TUD300

- Advanced model with many newly-developed useful functions
- Two measurement displaying modes: type A and type B
- Three detecting modes: single-probe , dual-probe and transmission
- 10 detecting channels are available with separate detecting parameters and DAC curves
- Auto-gain function
- Inspection and display of echo equivalent values according to different DAC curves
- The horizontal coordinates on screen are changeable among sound path, depth and projection
- Peak memory function
- During generation of DAC, the fixed points can be re-corrected



TUD310

- Equipped with high-speed USB port and flash memory device can be used directly on the instrument
- Data and documents are managed under FAT file system, making the management of inspection data more convenient, faster and more reliable
- Super large memory up to 32M, 1000 echo data can be stored in 32 detecting channels.
- 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 TUD310 by USB cable
- Equipped with gate follow-up, being convenient for users to adjust waveforms freely.
- Real-time waveform display and review is added into TUD310 software



TUD320

- Color TFT LCD display screen with backlight
- Reference waves with different colors can be displayed at the same time
- Curved surface correction: inspection of inner and outer curved surface, auto-correcting the detecting result according to diameter of curved surface
- DGS (AVG) curve: special key is designed for 2 types of DGS curves: flat-bottom hole and infinite plane.
- Real-time battery power indication, displayed by percentage
- Displaying echo times during multi-times echo detecting in which users are required to input the thickness value of work piece into instrument.

Technical Specifications:

	TUD300	TUD310	TUD320
Scanning Range	2.5 mm ~5000 mm	2.5 mm ~9999 mm	2.5 mm ~5000 mm
Gain Range	0dB ~110 dB		
D-Delay	-20 μ s~+3400 μ s		
P-Delay	0 μ s~99.99 μ s, resolution 0.01 μ s		
Sound speed	1000 m/s~9999m/s		
Bandwidth	0.2MHz~15MHz (Low0.2~1, Mid.0.5~4, High 3~15)		
Vertical linearity error	\leq 3%		
Horizontal linearity error	\leq 2%		
Dynamic range	\geq 32dB		
Rectification	Positive half wave, negative wave, full wave, and RF		
Sensitivity leavings	\geq 50dB		
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	RS232
Printer	TP UP-NH-S line thermal printer	EPSON ink-jet printers	TP UP-NH-S line thermal printer
AC requirements	85-264V AC/1.0A,47-63Hz		
Temperature	-10 $^{\circ}$ C~40 $^{\circ}$ C		
Humidity	20%~90%RH		
Power supply	Li battery 4 \times 3.6V 4000mAh		
Charging time	7hours		
Weight	1.47kg		
Overall dimension	243mm \times 173 mm \times 70 mm		

Optional Probes

Straight-beam probe (single crystal)



Straight-beam probe (double crystal)

Angle-beam probe (double crystal)

