

Phascan Portable Ultrasonic Phased Array Flaw Detector



PHASCAN portable ultrasound phased array flaw detector is a new-generation phased array inspection equipment developed by Doppler. PHASCAN has a powerful detection capability, can achieve a variety of scanning mode and focus mode, which greatly improves the detection reliability. Universal and friendly user-interface, simple operation, together with self-devoloped phased array probes , we can help solving a variety of complex problems and saving testing costs.

(1) Dual independent channels for high-performance TOFD detection, 32/128 pulser/receiverchannels for phased array.

(2) Embeded focal law caculator, which can realize:

With four kinds of scanning methods namely linear, sectorial, depth and static. True Depth, sound path, projection, and focal plane four kinds of focus types available. Optional display mode of A / S / B / C, etc.

- (3) Calibration is more convenient to implement and can be calibrated for each beam.
- (4) Multiple group for parallel scanning, equivalent of more than one instrument working

simultaneously.

(5) Negative square-wave emission, with resolution up to 2.5ns, PRF up to 20KHz.

(6) 10.4" TFT LCD color touch screen, resolution 800*600 pixel.

(1) Convenient setup wizard

(a) Materials selection, with a database for velocities and configuration of workpiece for flat or curved surfaces.

(b) Fast probes and wedges selectable or user-defined.

(c) Different way of scanning modes and depth simultaneously available with the same probe.

(d) A variety of groove types to choose.

(2) Powerful data analysis

(a) With reference and measurement cursors, used to quantify defects and generate reports.

(b) Interactive analysis to the A, B, S and C-scan, defect analysis more precise.

(c) All measurement results can be obtained online, off-line analysis can be performed after saving a complete A-scan.

(3) Accurate calibration

(a) Every beam is the same as single channel detector, ensuring detection accuracy.

(b) Interactive menus guide users to easily complete the velocity, wedge delay and sensitivity calibration.

(4) Perfect focus imaging

(a) Precise image resolution and angle accuracy of up to 0.1 $^{\circ}$.

(b) Focus type can be set as needed, defects show more clearly.

(c) A variety of optional laws to meet the demand for more test condition.

		PA module	Conventional UT
Config.	pulser/receiver	32/128	2/4
	range	9900µs	9900µs
	velocity	635-15240m/s	635-15240m/s
Pulser	test mode	PE/PC	PE/PC/TT/TOFD
	voltage	50V/100V	50V/100V/200V
	pulse shape	negative square wave	negative square wave
	pulse width	30-500ns	30-500ns
	rise time	<8ns	<8ns
	PRF	20KHz	20KHz
	delay	10µs/2.5ns	10μs/2.5ns
	damping	NA	50Ω/ 500Ω
Receiver	gain	0-80dB	0-80dB

	bandwidth	0.5-15MHz	0.5-15MHz
	input impendance	200Ω	200Ω
	input capacitance	60pF	60pF
	delay	10µs/2.5ns	10µs/2.5ns
Data Acquisition	digital sampling	100M(10bit)	100M(10bit)
	No. of data points	8192	8192
	No.of focal law	1024	NA
	focus type	depth/half path/projection/focal plane/auto	NA
	rectify	FW/HW+/HW-/RF	FW/HW+/HW-/RF
	synchronization	pulse/gate	pulse/gate
Scan/Display	type	linear/sectorial/static/depth	NA
	display mode	A/B/C/S	A/B/TOFD
	unit	mm、inch	mm、inch
DAC	points	16	16
тсб	points	16	16
	max gain slope	20dB/µs	20dB/µs
	dynamic range	40dB	40dB
Gate	gates	A/B/I	
	threshold	0-98%	
	trig mode	peak/edge	
Report		HTML	
Data Storage	Storage devices	USB devices/SD card	
Display Screen	size	10.4 inch	
	Resolution	800*600pixel	
	type	TFT LCD touch screen	
I/O Port	USB	3	
	internet	10/100M	
	video output	DVI/VGA compatible	
	encoder	applicable	
Language		English/Chinese/French/Russian	
Power Supply	batttery	Lithium Ion Battery	
	charging	charging on the host while operating	
	Battery life	6h	
Housing	dimensions	325mm*230mm*130mm	
	weight	4.5Kg(without battery)	