



Portable TFM Phased Array Ultrasonic Detector

Excellent Performance, Reliable

NOVASCAN V2 Portable TFM phased array ultrasonic detector after more than two years of field testing and customer feedback, the software and hardware have been upgraded comprehensively. The equipment provides a variety of hardware versions, with higher transmission voltage, bandwidth and sampling frequency, which greatly broadens the application scope. The brand-new software interface has simple layout and convenient operation, which optimizes the process setting process and significantly improves the work efficiency.

High Speed Data Acquisition And Processing

128 transmitting channel, the maximum pulse repetition frequency reaches 40kHz, which can realize high-speed and high-precision data acquisition and real-time ultrasonic signal processing, greatly expanding the application scope of the equipment.

Full Scene Multi-Modal Detection Function

Support FMC-TFM, PWI-TFM, conventional phased array, TOFD/UT and other multi-mode detection technologies, compatible with complex laboratory and industrial scene scenes, and realize PAUT/UT/TOFD detection on the same screen.

Three-Dimensional Imaging And Intelligent Analysis Technology

Integrate 3D matrix array TFM imaging and 2D TFM function, and provide intelligent defect identification function for corrosion, bonding and other detection results, which significantly improves the detection reliability.

Efficient Data Engine And Interactive Optimization

NOVASCAN V2 Built-in large-capacity storage module supports the analysis and processing of big data, simple scanning preset and flexible parameter adjustment, which significantly improves the response speed and execution efficiency of detection process.


3D

Real time 3D
detection function

FMC/PWI

TFM detection
points 1024 x 1024



Simultaneous focusing
simulation of multiple
groups



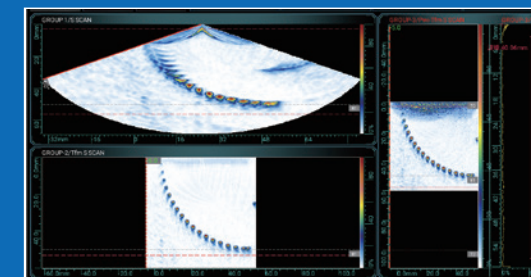
Two-dimensional
scanning and
intelligent analysis

NOVASCAN V2 Performance index of phased array ultrasonic detector

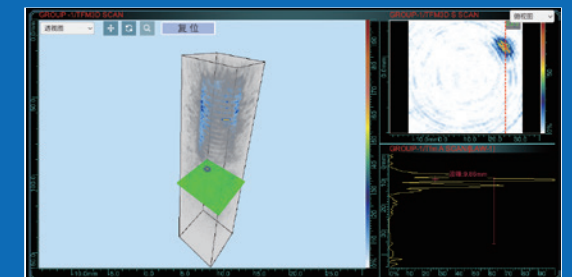
Parameter	PA Module	Conventional UT
Configuration		
Receive/Transmit	32/128PR, 64/128PR	2 / 2
Range	9900μs	9900μs
Velocity	340-15240m/s	340-15240m/s
Pulser		
Test Mode	PE / PC	PE / PC / TT / TOFD
Voltage	20-120V, 10V Step	100V / 200V / 400V
Pulse Shape	Bipolar Square Wave	Negative Square Wave
Pulse Width	20-1250ns/2.5ns	25-1000ns/2.5ns
Rise Time	<10ns	<10ns
PRF	40KHz	40KHz
Delay	20μs/2.5ns	20μs/2.5ns
Receiver		
Gain	0-120dB	0-120dB
Bandwidth	0.4-25MHz	0.5-26MHz
Delay	20μs/2.5ns	20μs/2.5ns
Data Acquisition		
Sampling Rate	100/200MHz	100/200MHz
ADC	16bit	16bit
Focus Type	True Depth/Sound Path/ Projection/Focal Plane	NA
Rectification Mode	FW/HW+/HW-/RF	FW/HW+/HW-/RF
Scan/Display		
Type	TFM/Linear/Sectorial/ Compound scanning	NA
Display Mode	A/B/C/S scan, PA-TOFD, TFM	A/B(TOFD)/C/ Band chart
Unit	mm/inch	mm/inch

Parameter	PA Module
TCG	
Point	16
Gain Range	40dB
Max Gain Slope	40dB/10ns

Parameter	PA Module
Gate	
Number	A/B/C/I + Custom Gate
Threshold	0-100%, wave height support 800%
TFM	
Point	1024 x 1024
Frame Rate	87Hz @ 256 x 256 64rounds 64 receipts
Report	
Report	WORD, PDF
Data Storage	
ROM	EMMC (128G) + SSD (Standard 1T)
Display Screen	
Size	12.1 inch
Resolution	1280x800 pixel
Type	Industrial Grade LCD Screen
I/O Port	
USB	2 USB3.0 + 1个USB2.0
Ethernet	1;1000Mb/s
Video Output	HDMI (Data format)
Encoder	LEMO 16-pin
Multifunctional Interface	LEMO 14-pin
Language	
Language	Chinese/English/Russian/French/German/Italian
Power Supply	
DC Supply Voltage	15V DC 100W
Battery Type	Lithium battery10.8V/97.2Wh
Continuous Working Time	About 4 hours
Case	
Size	362mm×254mm×121mm
Weight	4.7Kg(excluding battery)
IP level	
IP level	IP65



Comparison of PA, FMC-TFM and PWI-TFM imaging



Bolt 3D TFM inspection