

Performance

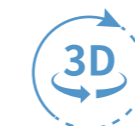
Parameter	PA Module	Conventional UT	
Configuration	Receiver/Pulser	64/128PR, 64/64PR, 32/128PR, 32/64PR, 16/128PR	2/2
	Range	9900μs	9900μs
	Velocity	340-15240m/s	340-15240m/s
Pulser	Test Mode	PE/PC	PE/PC/TT/TOFD
	Voltage	20-120V/10V	100V/200V/ 400V
	Pulse Shape	Bipolar Square Wave	Negative Square Wave
	Pulse Width	20-1250ns/2.5ns	25-1000ns/2.5ns
	Rise Time	<10ns	<10ns
	PRF	40KHz	24KHz(12kHz per channel)
	Delay	20μs/2.5ns	20μs/2.5ns
Receiver	Gain	0-120dB	0-120dB
	Bandwidth	0.3-25MHz	0.3-25MHz
	Delay	20μs/2.5ns	20μs/2.5ns
Data Acquisition	Sampling Rate	200MHz	200MHz
	ADC	16bit	16bit
	Max Length of A scan	16384	16384
	Focus Type	True Depth/Sound Path/Projection/Focal Plane	NA
	Detection	FW/HW+/HW-/RF	FW/HW+/HW-/RF
Scan/Display	Type	TFM/Linear/Sectorial/Compound scanning	
	Display Mode	A/B/S/C/FMC-TFM/PWI-TFM/3D/TopC/Strip Chart	A/B/C/Strip Chart
	Unit	mm/inch	mm/inch
DAC	Point	16	16
TCG	Gain Range	40dB	40dB
	Max Gain Slope	40dB/10ns	40dB/μs
Gate	Number	A/B/C/I+Custom Gate	
	Threshold	0-100%	
TFM	Point	1024*1024	
Report		WORD, PDF, EXCEL	
Data Storage	Pluggable Storage	EMMC (128G) +SSD (Maximum 1T)	
	Size	12.1 inch	
Display Screen	Resolution	1280x800 pixel	
	Type	Industrial TFT LCD touch screen	
	USB	2 USB3.0+1 USB2.0	
I/O Port	Ethernet	1; 1000Mb/s	
	Video Output	HDMI	
	Encoder	LEMO 16-pin	
	Multifunctional Interface	LEMO 14-pin	
Language		Chinese/English/Russian/French/Italian/German	
Power Supply	DC Supply Voltage	15V DC	
	Battery Type	Lithium battery 10.8V 97.2Wh (Hot Plug Support)	
	Continuous Working Time	About 5 hours	
Case	Size	362x254x121mm	
	Weight	4.9Kg (excluding battery)	
IP level		IP65	

Stock code: 301528



DOPPLER ELECTRONIC TECHNOLOGY

PAUT DETECTOR NOVASCAN V2



Real time 3D
Detection function



Total focusing detection
Points 1024 x 1024



simultaneous focusing
simulation of multiple
groups



Two-dimensional
scanning and
intelligent analysis



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NOVASCAN V2

Phased array ultrasonic testing expert

NOVASCAN V2 phased array ultrasonic detector has undergone more than two years of on-site testing and research, and now the software and hardware have been comprehensively upgraded! The number of hardware channels can be selected from five new versions: 64/128PR, 64/64PR, 32/128PR, 32/64PR and 16/128PR, which greatly improves the transmission voltage, bandwidth and sampling frequency, and greatly broadens the application scope of the equipment. Brand-new software interface, reasonable layout, complete parameter display, brand-new wizard process and customer-oriented operation design greatly simplify the process setting process and improve work efficiency. The instrument combines FMC-TFM full focus, PWI-TFM (plane wave) full focus, conventional phased array detection and independent TOFD/UT detection (dual channel), with perfect functions and strong practicability, especially suitable for laboratory and complex field detection.

Not just a phased array detector

Based on more than ten years of experience in phased array development and the needs of on-site personnel, Novascan instruments have excellent phased array detection capabilities, integrating multiple detection functions. The device supports Matrix probe 3D TFM imaging, and one instrument has both 3D TFM, 2D TFM, and phased array functions, allowing for free switching. Multiple sets of TFM detection can be performed simultaneously with PAUT, UT, and TOFD, and displayed on the same screen. Phased array technology supports linear array, dual line array, dual matrix array probes, etc., and is suitable for the vast majority of weld and corrosion detection scenarios. The high-end intelligent analysis technology unique to the instrument is designed for application scenarios such as corrosion detection, weld detection, and composite bonding detection. It can achieve intelligent defect recognition and high-precision measurement and analysis functions, greatly expanding the special application fields of the instrument. Coupled with the design advantages of Doppler's scanners and probes, it can solve many nondestructive testing problems.

Excellent stability

The instrument casing is made of durable aluminum alloy, with sturdy and durable interfaces and good overall sealing performance. The protection level is IP65, and it can also perform testing work in complex and harsh environments. The instrument has two batteries, which can meet a day's testing workload. With 1280 * 800 pixel high-definition industrial grade LCD screen and clear image display, it is more convenient for operation.

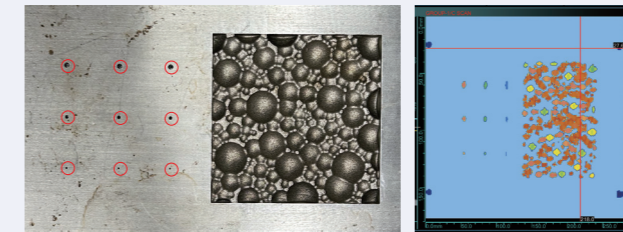
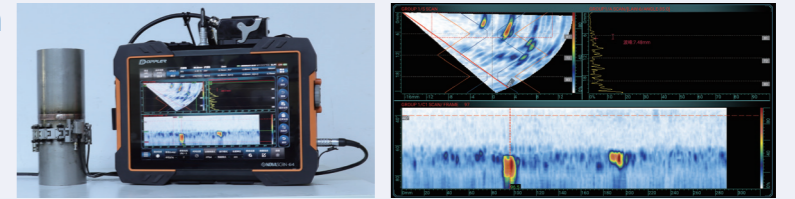


Performance characteristics

- Support 128 elements phased array probes at most, and realize parallel real-time data acquisition and processing.
- Automatic probe recognition: The system automatically identifies the probe and loads the corresponding parameters when connected.
- Phased array detection and analysis: Supports multiple display modes, including A, B, VB, Side B, S, C, D, TopC, strip chart, and 3D, with support for multiple C-scan displays.
- Special focusing mode: Improves step direction detection accuracy by 2x with constant probe parameters, reducing costs.
- Customizable focusing: Allows users to select transmitting and receiving elements and adjust delays, meeting high-end research needs.
- FPGA direct connection: Provides FPGA direct connection to transfer data to the upper computer system, allowing for easy secondary development.
- Large storage capacity: With 128GB core storage and 1TB built-in SSD, data storage speed is greatly improved.

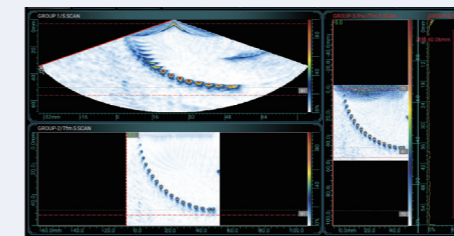
Stainless steel weld inspection

The DLA probe is used to detect the circumferential weld of stainless steel, and the effect is good. The equipment has the function of rectangular gate, which can reduce the interference of clutter signals, thus completing the detection work better.



Two-dimensional corrosion

The grid scanning of the corrosion simulation test block on the steel plate was performed, and the detection results were satisfactory.

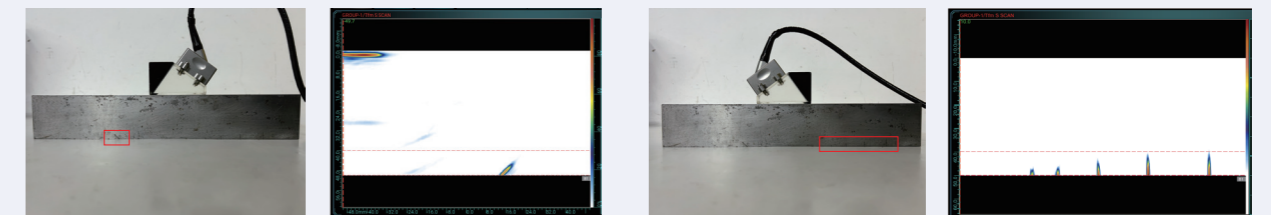


PA /FMC-TFM /PWI-TFM

The equipment can support multiple detection modes to work at the same time, including PA, FMC-TFM, PWI-TFM, UT and TOFD, which can meet most detection requirements.

TFM

The equipment supports up to 12 TFM modes, through which the workpiece can be fully inspected and the possibility of missing inspection can be avoided to the greatest extent.



Example of TFM bolt detection

Using linear array probe to detect bolts in TFM mode, the crack signals in thread and polished rod areas can be clearly found.

