Performance

Option		Parameter
Configuration	Receiver/Pulser	32/128PR、32/64PR、16/128PR、16/64PR
	Velocity	340-15240m/s
Pulser	Test Mode	PE/PC
	Voltage	20V~100V/10V
	Pulse Shape	Negative Square Wave
	Pulse Width	25-1000ns/2.5ns
	Rise Time	≤8ns
	PRF	40KHz
	Delay	0-20μs/2.5ns
Receiver	Gain	0-120dB
	Bandwidth	0.9-20MHz
	Delay	20μs/2.5ns
	Input impedance	200Ω
Data Acquisition	Sampling Rate	100MHz
	Number of Focusing rules	512
	Focus Type	True Depth/Sound Path/Projection/Focal Plane
	Detection	FW/HW+/HW-/RF
	Synchronize	Initial pulse or gate
TFM	Maximum number of points	Max. 4 million
	Fully focused aperture	128 launch
	Full focus mode	TT、TTT、TTTT、TTTTT、LL、LLL、LLLL、LLLLL、TLT、TLL、LTT
Scan/Display	Type	TFM/Linear/Sectorial/Compound scanning
	Display Mode	A／B／S／C／TFM／3D／TopC／Strip Chart
	Unit	mm/inch
TCG	Point	16
	Gain Range	40dB
	Max Gain Slope	40dB/μs
Band filter		Real-time Average
I/O Port	Ethernet	1000Mb/s
	Encoder	LEMO 16-pin
Gate	Number	A/B/C/I+Customize
	Threshold	0-100%
	Trigger Mode	Peak/Leading Edge
Power Supply	DC Supply Voltage	15V DC
Case	Size	350mm×245mm×55mm
	Weight	3.4Kg

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DOPPLER ELECTRONIC TECHNOLOGY

Phased Array Ultrasonic Board

ROBUST P1

SDK
A complete SDK development includes a variety of API interface functions

PWI TFM
Full-focus inspection Maximum point count of 4 million

Support Matrix-/Dual Matrix probe

Automatic defect area calculation

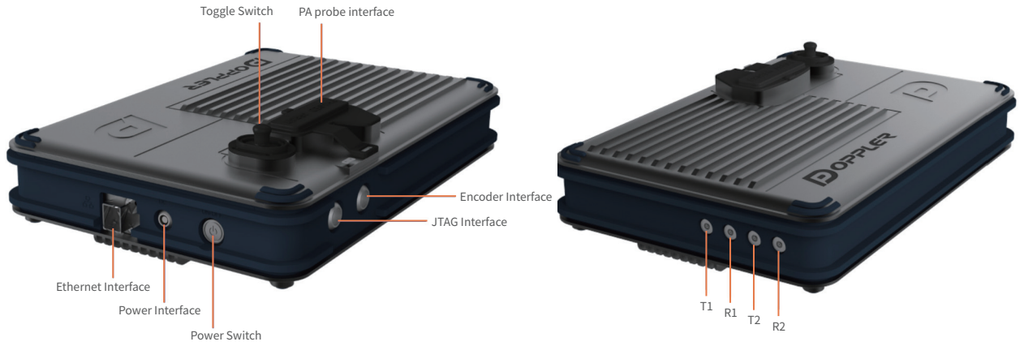
ROBUST P1
Phased Array Ultrasonic Board

With its excellent performance and reliability, ROBUST P1 series phased array ultrasonic board has become an ideal platform in the field of automatic detection, and is committed to providing efficient and accurate detection solutions for various industries. This series of products are widely used in manufacturing, aerospace, transportation, new energy and other fields, which has successfully promoted the rapid progress of automatic detection technology. Whether in optimizing the inspection process or improving the quality control level, ROBUST P1 series has always provided customers with reliable technical support and innovative solutions to help the industry develop.

Full-featured, providing a complete SDK development kit

ROBUST P1 series covers many models, which can meet the detection requirements in different scenarios. These models support free switching between TFM (Full Focus Imaging) and phased array functions, and flexibly adapt to different detection tasks. At the same time, the product supports two independent TOFD (ultrasonic time difference imaging) channels and phased array channels for synchronous detection, and can display the detection results on the same screen, which significantly improves the detection efficiency and accuracy.

In addition, ROBUST P1 series provides users with a complete SDK development kit, which is convenient for users to customize software functions according to actual needs. In order to meet different application scenarios, the product also provides a universal version of the software, covering two-dimensional scanning analysis, stainless steel detection, intelligent corrosion detection, TFM full focus multi-mode detection and other functions. Through efficient multi-mode detection, ROBUST P1 series can provide more accurate and flexible solutions for the detection of complex structures, which greatly improves the detection ability and reliability.



Excellent stability and adaptability to harsh environment.

The shell of ROBUST P1 series products is made of high-strength aluminum alloy, the interface design is firm and durable, the whole machine has good sealing performance, and the protection level reaches IP65, which ensures that the detection task can be stably completed in complex and harsh environments. Its metal rectangular waterproof network interface has IP67 waterproof grade, which can effectively prevent water vapor from invading and ensure long-term stable operation in industrial environment.

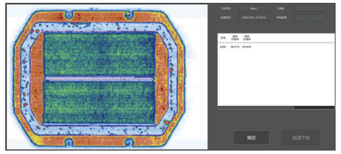
In addition, ROBUST P1 series is equipped with Gigabit network port, which supports high-speed data transmission and can meet the high requirements of real-time data transmission in industrial automation. Its stable high-speed transmission capability makes data processing more efficient and safe. The probe interface has a foolproof design, which ensures that there will be no reverse insertion, and the waterproof level of the interface reaches IP65, which prevents water splashing and further improves the durability and stability of the product.

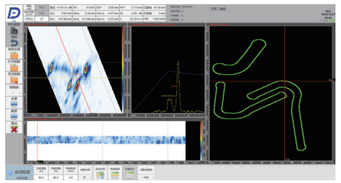
software operating environment

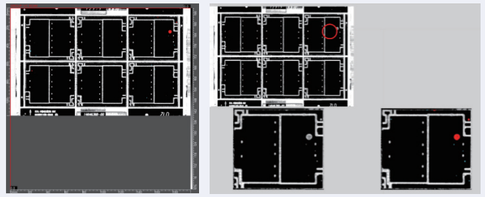
Operating system: Win7 64-bit or above system.
Processor: Dual-core and above (4 cores and above are recommended).
Network card: It is recommended to choose an independent network card to support Gigabit Ethernet.
Other requirements: antivirus software may misreport viruses, resulting in other failures such as failure to connect the card and flashback. Please exit when using the card software.

Excellent automatic integration ability, enabling efficient batch inspection.

ROBUST P1 board has powerful secondary development interface and excellent system compatibility, which can seamlessly integrate three-axis and multi-axis mechanical systems and realize high-precision two-dimensional automatic scanning. Its modular design is especially suitable for large-scale workpiece inspection scenes in automobile manufacturing, aerospace, new energy vehicles and other fields, which can significantly improve the inspection efficiency and consistency, and is an ideal solution for industrial automation inspection.

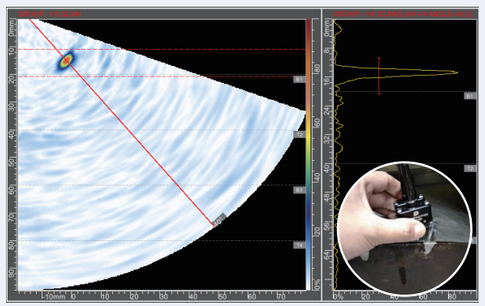






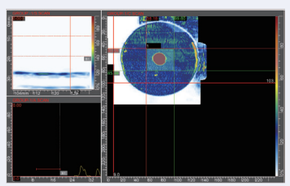
Intelligent Defect Recognition and Analysis

As an automated detection platform product, the ROBUST board's accompanying software fully considers the needs of automation. It can quickly and automatically capture defects and perform defect statistics, significantly reducing the data evaluation workload. This is one of the key elements for achieving automation in phased array testing.



Supports DLA/DMA Probes

The software supports various advanced detection functions, including DLA detection, matrix array detection, and DMA detection. These functions can be used for multiple workpieces and applications. For materials that are difficult for ultrasound to penetrate, such as austenitic stainless steel, conventional linear array probes often have low signal-to-noise ratios and may struggle to detect defects. DMA probes offer better focusing effects and higher signal-to-noise ratios, thereby improving defect detection rates.



Powerful corrosion detection

ROBUST board supports two-axis encoder, which can realize high-speed two-dimensional scanning and greatly improve the efficiency of large-area corrosion detection. The corrosion analysis function is complete, which can intelligently screen the corrosion area, automatically calculate the corrosion area and count the corrosion rate.