PHASEYE Channel	Maximum PRF	PA system bandwidth	PA maximum aperture	TFM maximum aperture
64:128 PR	40KHz	0.4 MHz to 25MHz	64	128
32:128 PR	20KHz (upgradable to 40KHz)	0.4 MHz to 18MHz	32	64
32:64 PR	20KHz (upgradable to 40KHz)	0.4 MHz to 18MHz	32	64

### **General parameters**

Dimensions (W x H x D)	348*254*114 mm (13.7*10*4.5in)
weight	About 4.96kg (including 1 battery)
Screen size	11.6 inches (1920*1080)
Touchscreen Technology	capacitance
Operating temperature	-10°-45°C(14°-113°F)
Storage temperature	-10°-60°C ( $14^\circ\text{-}140^\circ\text{F}$ ) (with battery inside)
Cooling fan	2
Operating humidity	70% max at 45°C (113°F) without cooling
Battery runtime	5 hours operation on 2 batteries
Hard disk capacity	256 GB SSD (expandable to 1T)
USB 3.0	2
Wireless connectivity	have
whetess connectivity	llave
Video Output	Mini DP

## **Software Features**

	User Experience	Smooth operation
	Probe Database	have
	Wedge Database	have
	Focus mode	Depth, path, level
	2D Focal Law Calculation	have
	Beam coverage display	have
	3D display of workpiece structure	have
	Remote Control	have
	PAUT and TFM are displayed simultaneously	have
	Multi-modal TFM simultaneous detection	have
	3D data view	have
	Support wireless transmission	have

Standard Kit PHASEYE® phased array instrument, including FMC / TFM function and PA function, power cord and printed "Easy Getting Started Instructions". The package also includes the latest version of PHASESOFT software, hard carrying case, calibration certificate, lithium-ion

battery, anti-glare screen protector, The package includes a DC charger with power cord, a USB stick with software and user manual, and analysis software.

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## **PA Configuration**

Number of groups	Upgradable to 4 PA probes or 128 UTs, 128 groups
Number of digits	16 bit
A-scan maximum amplitude	Up to 1600%
Maximum number of A-scan data points	Up to 16384
Maximum number of focal laws	8192
Digital frequency	200MHz
Pulse generator voltage	±100V
Pulse shape	Negative square wave, positive square wave, bipolar square wave optional
Phased Array Gain Range	0-120 dB
Pulse Width	20ns to 1250ns
Real-time average	Up to 64
TCG Multi-point Collection	yes

## FMC/TFM/PCI/PWI

TFM supported modes	LL\LLL\LLL\TT\TTT\TTT\TTTT\TTTT TLT\TLL\LTT
TFM resolution	1024 x 1024
Number of digits	16
Real-time Envelope	have
FMC/PCI Functionality	support
PWI/TFM Function	support
FMC/PCI Functionality	support

### UT

Number of regular UT channels	Supports conventional UT and TOFD modes
Number of TOFD groups supported	2 groups
Excitation voltage	Up to 300V
Voltage adjustment step	1V
Pulse shape	Negative square wave
Pulse Width	20ns to 1250ns
Pulse width modulation step	lns
Pulse repetition frequency	30KHz
bandwidth	0.4 MHz to 25 MHz
UT gain range	0-120 dB
show	A/Sideview(TOFD)/C

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have been certified by ISO 9001 Quality Management Syste ISO 14001 Environmental Management System, and ISO 45001 Occupational Health and Safety Management System. The information in this document was accurate at the time of its publication, and actual products may differ from those described herein.  $\mathsf{PHASEYE}^{\otimes}$  and its associated logos are trademarks registered in China. All technical specifications are subject to change without notice.

## PHASEYE

## The new generation of FMC and TFM

## **Ultrasonic Phased Array Flaw Detector**



See all, See more

## PHASEYE New Generation of high performance ultrasonic phased array flaw detector







## New Generation Phased Array Flaw Detector Full focus/phased array on-screen display

FMC/TFM and PA technologies come together to quickly realize 3D functions. Whether it is conventional ultrasound technology, Whether it is single beam or multiple PA groups, the functions are even more powerful. Multi-axis encoder synchronization linkage allows automatic and semi-automatic Motion detection is more efficient.

- ✓ Full Matrix Capture (FMC) Capture speed up to 2GB/S
- ✓ Total Focusing Method (TFM) Real Time High Efficiency High Resolution Display
- Suilt-in focal law calculator (FLC) 3D simulation technology predicts echo response distribution
- Support FMC/TFM, FMC/PCI, PWI/TFM, PWI/PCI

### Pay attention to details, born for professional work

The body is made of high-strength aluminum alloy shell, which is sturdy, durable and well-shielded; large-size industrial capacitive screen; supports up to 1TB storage capacity; 2 hot-swappable lithium batteries can meet about 5 hours of working time per day.

### Multi-channel full focus, unlocking more detection potential

Complete TFM toolbox, including TCG calibration, high-resolution TFM imaging, support for dual-line and dual-surface Array probe TFM imaging. Supports multiple groups of TFM imaging.

### **Better Function**

- ✓ Focal Law Number 8192
- ✓ Maximum data collection speed 2 GB/s 
  ✓ 256 GB SSD hard drive, up to 1TB expansion
- Digitization frequency 200 MHz
- ✓ Number of bits: 16

## **PHASEYE** onboard software Provides Fast, Efficient, Real-time 3D imaging Capabilities

PHASEYE PA32-64PR-TFM is a powerful flaw detection instrument with both FMC/TFM and PA. The onboard software fully embodies the efficiency and capability of detection, and has perfect data processing and reporting functions, especially in the data processing of TFM and PA, so that the data you need can be easily obtained. Let the defects nowhere to hide! The software has added A variety of display modes, including A, B, C, D, S and 3D imaging, so that the displayed image is closer to the real workpiece, so that the detection is more intuitive and clear!

## The new ultra-high performance architecture

The 300Gb DDR bandwidth allows real-time TFM to be realized, and the system runs more smoothly. The 16bit / 100MSPS ADC allows for extremely high dynamic range, allowing you to see more detail. The special circuit design greatly reduces the transmission and reception losses, and achieves a very high signal-to-noise ratio. A new focus law calculator with built-in proprietary intellectual property directly 3D simulates echo response distribution.Up to 200V of emission voltage allows the perfect solution for large workpiece inspection. At the same time, 32 channels can be received, which can realize a variety of special application requirements such as face array and two-sided array.The FMC data acquisition speed can reach 2GB/s, far exceeding the data acquisition rate of existing portable detection systems. It can realize the parallel use of multiple machines and realize the functional application of large-scale systems.



## **Program Application** scenarios

Wind turbine blades, glass carbon fiber inspectio

Composite material (carbon fiber) inspection

Aluminum plate and aluminum

Aircraft Skin Bonding nspection

HDPE pipe resistance welding orkpiece inspection







