

Specifications

General Parameters

Dimensions (W x H x D)	310*247*96 mm (23.2*9.7*3.8in)
Weight	Nearly 6.09 kg (including 1 battery)
Screen size	11.6 inches (1920*1080)
Touch screen technology	Capacitance
Operating temperature	-10°-45°C (14°-113°F)
Storage temperature	-10°-60°C (14°-140°F) (with built-in battery)
Cooling fan	2
Operating temperature	70% max at 45°C (113°F) without cooling
Battery duration	4 hours of operation on 2 batteries (with hot-swap capability)
Hard drive capacity	256 GB SSD (expandable to 1T)
USB 3.0	2
Wireless connection	Yes
Video output	Mini PD
PA channel	Yes

TFM / FMC

TFM / FMC function	TFM / FMC
Pulse receiver	64:128
Bit depth	16
Frame rate	256 x 256: up to 80Hz
Parallel multi-mode full focus	Yes
Method TFM	Yes
Parallel PA+TFM acquisition	Yes
TFM resolution	1024 x 1024

1.Three models are available

We provide three models of PHASEYE® flaw detectors: 32: 64PR, 32: 128PR, and 64: 128PR. If you choose the 32:64PR and 32:128PR models, you can easily upgrade to the 64:128PR model in the future.

Standard Kit (64: 128PR)

PHASEYE® Phased Array Instrument, including FMC/TFM and PA function, power cord, and printed "Quick Started Guide ." The package includes the latest version of PHASESOFT software, hard carrying case, calibration certificate, Li-Ion battery, anti-glare screen protector, DC charger with power cord, USB stick with software and user manual, and analysis software.

PA Configuration

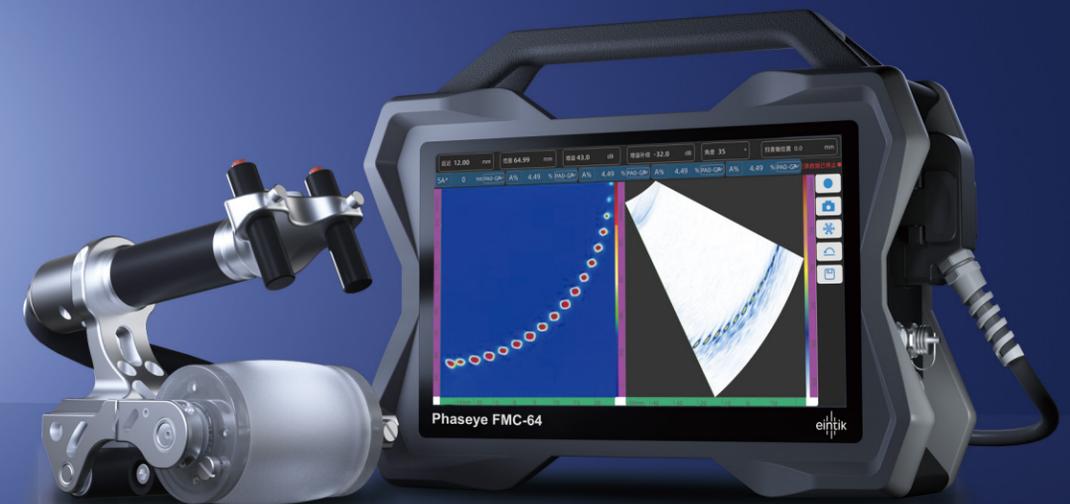
PA configuration	64:128 PR ¹
Number of groups	8 groups
Inspection technology	PA
Number of digits	16 bit
A scan height	Up to 800%
Maximum number of A-scan data points	Up to 16384
Maximum number of focal laws	8192
Digital frequency	200MHz
Max PRF	20KHz
Pulse shape	Bipolar square wave
Gain range	0-80 dB
Pulse generator voltage	100V / 200V
Pulse width	20ns to 1250ns
System bandwidth	0.4 MHz to 25 MHz
Gain span	0-80 dB
Real-time average	Up to 64
TCG multipoint acquisition	Yes

Software Features

User experience	Smooth operation
Probe database	Yes
Wedge database	Yes
Focus method	True Depth, Sound Path, Projection
2D focal law calculation	Yes
Beam overlay display	Yes
3D display of workpiece structure	Yes
Wireless remote control	Yes
The PAUT and TFM are displayed simultaneously	Yes
Multimodal TFM simultaneous detection	Yes
3D data view	Yes
Support wireless transmission	Yes

PHASEYE FMC-64

The new generation of FMC and TFM Ultrasonic Phased Array Flaw Detector



see all, see more.



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Products have been certified by ISO 9001 Quality Management System, 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. PHASEYE® and its associated logos are trademarks registered in China. All technical specifications are subject to change without notice.



PHASEYE FMC-64

A New Generation of High-Performance Phaseye Technology - Flaw Detector

A new generation of phased array flaw detector, full focus/phased array display on the same screen

FMC, TFM, and PA technologies can rapidly produce accurate and real-time 3D imaging. Whether conventional ultrasound technology, single-beam, or multi-group, adding PA functions produces even more detailed results. On top of that, synchronous multi-axis encoder linkage makes automatic and semi-automatic detection more efficient.

- Full Matrix Capture (FMC) - up to 128 elements capture at 2GB/S
- Total Focus Method (TFM) - Real Time High Efficiency & High Resolution
- Built-in Focal Law Calculator (FLC) - 3D simulation technology predicts sound field distribution
- A variety of hardware configurations to meet different detection needs - 32: 64PR 32: 128PR 64: 128PR, etc.

More detail - born for professional work

The body is made of high-strength aluminum alloy shell, durable, excellent shielding; Large size industrial capacitive screen; Supports up to 1TB storage capacity; Two hot-swappable lithium batteries can meet the daily working time of about 5 hours.

Up to 128 channels of TFM that unlocks more detection details.

Complete TFM toolbox including TCG calibrated high-resolution TFM imaging, up to 128 wafers.

Better Function

- PA / UT transmit and receive configuration 64: 128 PR
- Pulse voltage (PA) 100 V / 200 V
- Bandwidth (PA) 0.4 MHz ~ 25 MHz
- Focal Law Number 8192
- 256 GB SSD hard drive, up to 1TB expansion
- Maximum data collection speed 2 GB/s
- Communication support WIFI, 3.0 USB, Gigabit or more Ethernet, MiniDP, Bluetooth connection
- Digitization frequency 200 MHz

- 1 HD Capacitive Touch Screen
- 2 Phased Array Probe Interface
- 3 System Integration Interface
- 4 Encoder Interface
- 5 Power Input
- 6 USB 3.0
- 7 Mini DP
- 8 RJ45 network port
- 9 Battery Installation Port

*PhasEye Technology: Including FMC, TFM, and PA technology with built-in sound field 3D simulation calculator technology



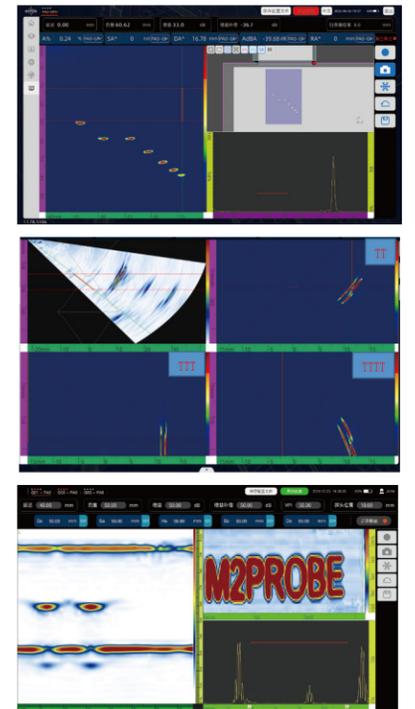
PHASESOFT

Provides Fast, Efficient, Real-time 3D imaging Capabilities

PHASEYE FMC-64 is a powerful flaw detection instrument with both FMC/TFM and PA. The on-board software fully embodies the efficiency and ability 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 is readily available, so that defects can be found nowhere! 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 64 channels receive, can achieve a variety of special application requirements such as face array, 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.



Integrated probe and instrument design

Using years of experience in instrument research and development, we combined our probe design, R&D, and manufacturing capabilities to produce our PHASEYE FMC phased array system with no equal. Einteck can assist you with professional high-end ultrasonic application development, from professional software to custom state-of-the-art probe designs, from encoders to scanning frames; we provide a full range of professional and world-class solutions!



Program Application scenarios

- Wind turbine blades, glass carbon fiber inspection
- Composite material (carbon fiber) inspection
- Aluminum plate and aluminum honeycomb inspection
- Bolt detection
- Plane detection
- Aircraft Skin Bonding Inspection
- HDPE pipe resistance welding workpiece inspection
- Gear detection
- Weld inspection

Program Overall Highlights

- From system hardware to core algorithm and sensor technology, all realize independent intellectual property rights
- Up to 8 beam groups, 8192 focusing methods
- 64 / 128PR High-Performance FMC, TFM, and PA Systems
- The maximum pulse repetition frequency is 20kHz
- 800% high amplitude range, reducing the need for rescans
- System bandwidth 0.4MHz - 25MHz
- Built-in new focal law calculator for fast 3D capabilities
- The software function is platformed, and the rapid application is realized according to the function module.
- Built-in accurate probe and wedge data sets for automatic matching and fast detection
- Detection function classification application to achieve quick calibration and quick wizard functions
- Full function of realizing TFM and PA at the same time to ensure the coverage and high sensitivity detection of key areas.