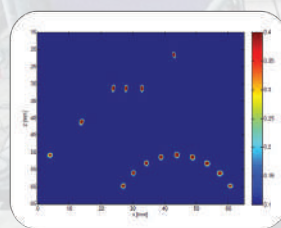


High Performance Phased Array Ultrasonics


Advanced OEM Solutions

Advanced FMC/TFM



High Resolution Phased Array Scan



Aluminum Block with 1mm
Side-Drilled Holes

Features and Benefits

- **Source code** is provided with thorough documentation.
- **Mountable on scanner** for AUT, saves on cable costs and complexity.
- Rugged, Low Power and Easy to Integrate!
- **Configurations:** 16/16, 32/32, 16/128, 32/128, 64/64, 128/128 and 256/256



- **Easy to use**
- **Small**
- **Customizable**
- **Cost Effective**

www.aos-ndt.com

Start Customizing
Your Solution With
OEM-PA Today!



OEM-PA IN LINE 32/128



64/64



32/32



16/16



OEM-MC
32 CH

System Integrators

Creating custom and seamless automated solutions has never been easier. OEM-PA is designed to be integrated into existing or new systems on the mechanical, thermal, electrical, and software levels. Our modules offer ultimate flexibility!

- Save time and money on integration and software development.
- Small, simple 24V (18~36V) or 12V (9~32V) DC powered. You can easily integrate or mount OEM-PA wherever you like.
- Concentrate on the target application:
 - o In-Line: Create high-end fast inspection systems for manufacturing.
 - o AUT: Mount OEM-PA on your scanner to shorten the probe cable for better SNR and eliminate complex and expensive cabling.
 - o Systems: Whether it be an immersion tank or 6-axis robotic arm, OEM-PA can handle the most demanding NDT automation applications.
- Well documented API and monitoring tools to test your application during development. Example source code, online tutorial videos and so much more!
- Easily access all the parameters you need. The work of linking complex Phased Array parameters is already done for you.

LAN gives you the ability to deal with long distances between the acquisition unit and the PC with a reliable and low cost solution.

OEM-PA's ultimate flexibility allows you to expand your market reach in custom solutions or a new product line of standard inspection systems. This is a great opportunity for you to enter a profitable market where you don't have to worry about paying off the R&D costs of the base equipment.

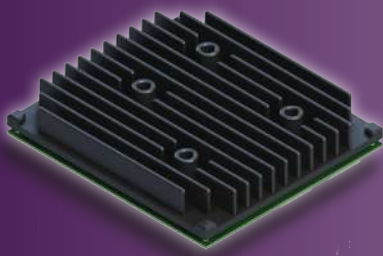
Research Institutes/ Universities

OEM-PA is the perfect "Open Platform" system that promotes advancements in science and technology without denying you access. Do you have a limited budget, but don't want to compromise on features and performance for your academic and research goals? Do you need low level control and access to all the phased array parameters? OEM-PA is the ideal solution:

- To create your setup and get the data, you can either:
 - o Use the expert GUI that also serves as the API guide tool box.
 - o Develop in C++, C# or other Windows languages. The setting, acquisition and visualization examples, mostly delivered with source code will make your life easier.
 - o Develop directly with MATLAB or LabVIEW.
 - o For ease of development, the API is supplied with examples, source code and monitoring tools.

Hard to Refuse Price without compromising on quality

Become a partner today to take advantage of key benefits!



OEM - PA LITE
16/16



OEM - PA 128/128



OEM - PA
256/256

Service Companies

Do you find existing Phased Array equipment too expensive, or perhaps difficult to be trained on with a lot of features that aren't necessary for your particular application? We can provide you with a simple yet powerful solution at a price that is difficult to refuse.

With today's advancement in technology, the NDT application is heavily about the software. You have the opportunity to develop your own dedicated software application, or one of our partners can develop custom software to fit your inspection at an attractive price. Either way, you own the software.

- Don't be bogged down by too many unnecessary features that slow down your operators.
- Save time on training with an easier instrument and interface.
- Add value to your services by offering your customers a unique inspection solution.
- Don't just compete on price by bidding on projects with others using the same inspection system. Create an overall better service experience for your customers by automating reporting, data collecting, and setup times.
- Stop limiting yourself with a closed system and get the inspection you really want!

Dramatically increase your productivity:

- Focus on your core services and business.
- Save time and money on development and customization.
- It's possible with OEM-PA where other solutions just don't work.

Why spend millions of dollars on R&D when you can get it for the equivalent of the manufacturing cost ?

Compact and Simple: Extremely Easy to Integrate



OEM-PA

Customize Your Solution!

PULSER

Pulse Voltage	145V
Pulse Type	Negative Square
Pulse Width	10~1000ns
Pulse Width Resolution	4ns
Pulse Focusing Delay	0~40µs
Pulse Focusing Delay Resolution	4ns
Maximum PRF	20kHz

RECEIVER

Receiver Sensitivity	550mV
Receiver Gain Range	16~110dB
Receiver Bandwidth	0.3 to 20MHz
Receiver DAC (digital)	80dB, Up to 64 points
Receiver Focusing Delay	0~40µs
Focusing Delay Resolution	5ns
DDF	Up to 64 points

GATES

Number of Gates	4
Interface Echo Tracking (see below)	Yes
Synchronization (same cycle)	Yes
Synchronization (other cycle)	Yes
Mode	Max, Min, ABS, Zero before, Zero after

COMMUNICATION ¹

LAN (100BT Connection)	5 MB/s (STANDARD)
LAN (1000BT, Gigabit Ethernet)	10 MB/s (UPGRADE)
USB3.0 Interface (128/128 only)	160 MB/S (UPGRADE)

¹ The maximum data rate can vary according to the PC, the OS setting, and the Software environment.



Advanced Phased Array

- Small size- Hold in the palm of your hand
- Open platform for easy integration
- Unbeatable prices

SIGNAL PROCESSING

FIR Filter	Up to 64 taps
Different Filter per Cycle	Choose from 15 user defined filters
A-Scan Sampling	100MHz
Decimation	50MHz, 33, 25, 16.65, 14.28, 12.5
Compression	Yes
A-Scan Video	Yes
Acquire All A-Scans	Yes
A-Scan Length	<32kB
Rectification	Yes

SYSTEM

Configurations	16/16, 16/128, 32/32, 32/128, 64/64, 128/128, 256/256
Max Number of Cycles	2048 (Optional 4096)
A-Scan Resolution	8, 12, 16 bits
A-Scan Mode	Lin, Log
16/16	110x80x40 mm3 for bare electronics
64/64	110x70x80 mm3 for bare electronics
Weight	Starting at 380g for bare electronics
Temperature Sensors	Yes
Open Source SDK	Yes (Fully Documented API)
Software Languages	C++, C#, LabVIEW, MATLAB, and more
Full-Matrix Capture	Yes (Optional Upgrade)
3D Focal Law Calc for Matrix PA	Yes (Optional Upgrade)

Power Consumption ²	
16/16	16.5W
32/32	23W
64/64	36W
16/128	21W
32/128	28W

² Measured at a 2kHz PRF with a 5MHz probe with all channels enabled

I/O MANAGEMENT

Encoders	X, Y
Encoder Modes	Quadrature, Quadrature4edges, Direction Count, Forward Backward
Synch In	Pulse trig, Sequence Trig, Encoders
Synch Out	Pulse trig, Sequence Trig, Output
TimeStamps	Yes (Position and Line Speed)
Pin Assignments	Programmable
Number I/O	6 Inputs, 6 Outputs