



# Go Beyond The Limits

DEEPSOUND P5 Phased Array Ultrasound Testing



# Product Description



The knowledge and experience we have accumulated from developing various UT devices have allowed us to create an incredibly versatile and portable PAUT device.

DEEPSOUND P5 features a wide, easy-to-use, glove-compatible 12.1" LCD touch display.

Furthermore, we have implemented numerous design suggestions and requests made by PAUT technicians, making the P5 incredibly comfortable and easy to operate in any environment.



**LEFT PORTS**



**RIGHT PORTS**

# Total Focusing Method(TFM)



\*TFM / FMC Program Separate purchase required

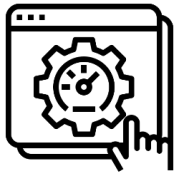
## Faster TFM & High Quality TFM

DEEPSOUND P5 Equipment TFM / FMC imaging and advanced visualization capabilities, backed by its high image quality enable you to complete your inspection with greater confidence.

## TFM / FMC Raw Data Export

We can export TFM / FMC data from the equipment, and we can help you use the data for research and development.

# Operation Speed



RESPONSIVE



POWERFUL  
PROCESSING



FAST DATA  
COLLECTION

## Instantaneous Operation Speed and Max 30k PRF Value

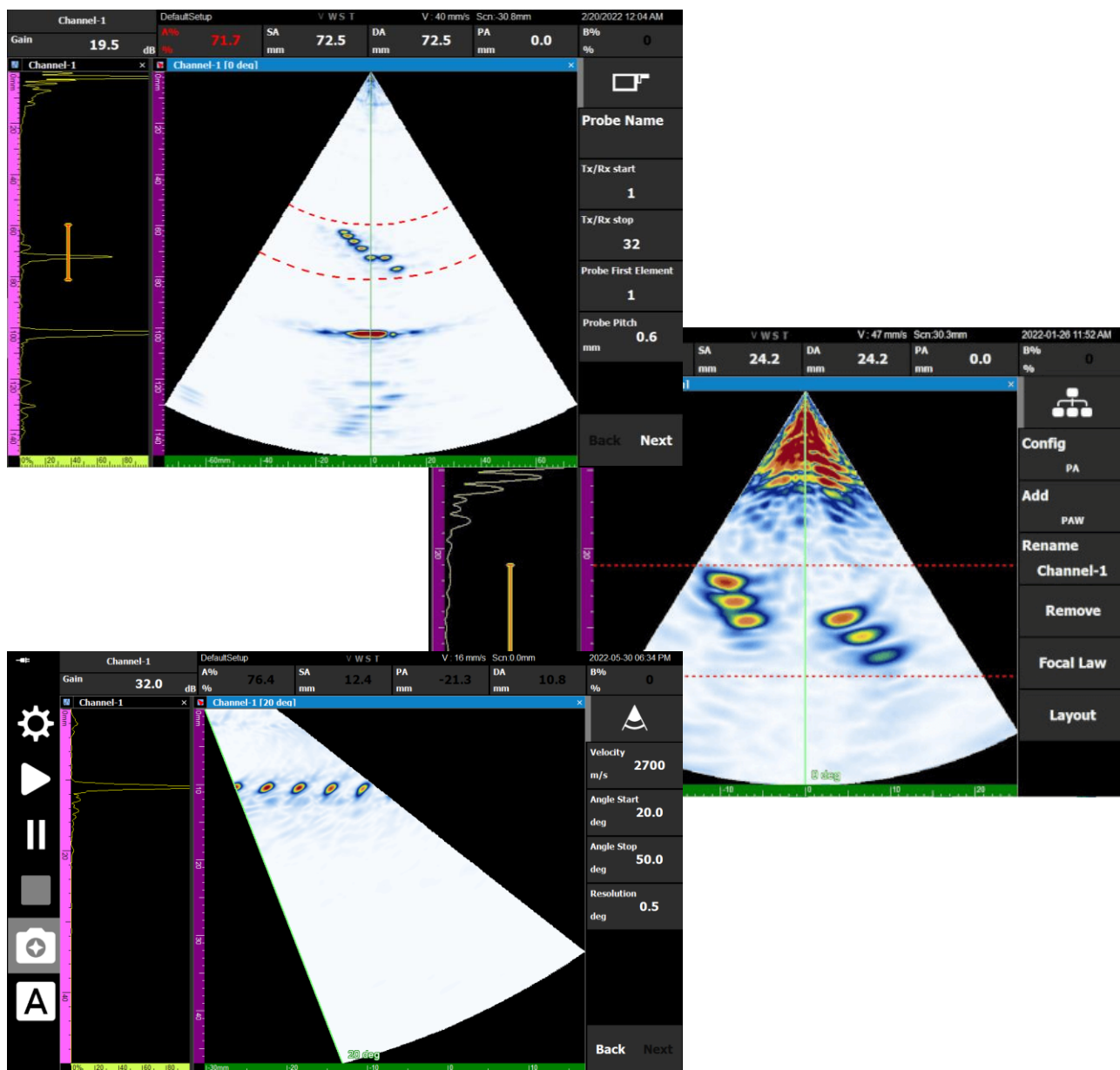
Maximize efficiency with the P5's incredible operation speed, unlike other typical NDT devices.

Experience PAVision's enhanced hardware features such as depth control, PRF, and focal law angle change paired with increased processing speeds.

Furthermore, DEEPSOUND devices support PRF values up to 30kHz by default.

Run PAVision with an encoder to clearly observe the significant difference in data collection speed.

# Axial Resolution

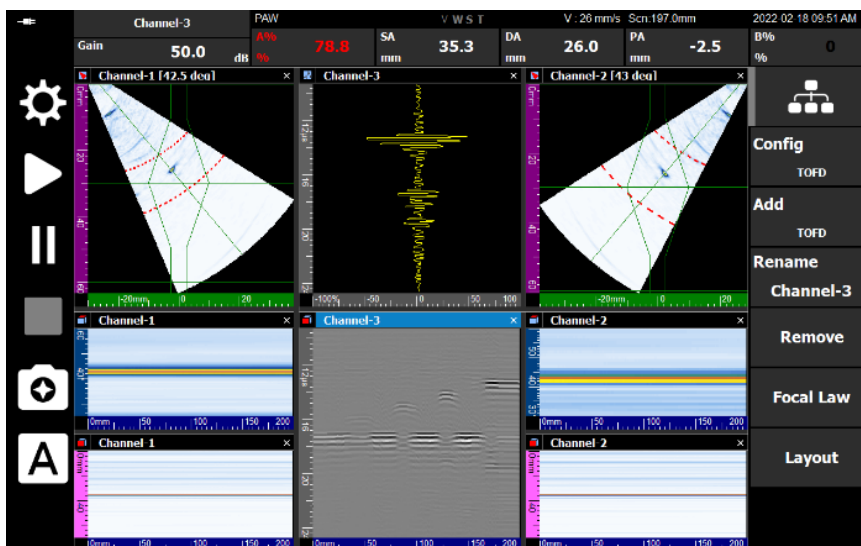


## Difference in Beam Focusing

Clearly differentiable/high resolution/high image quality. Unlike other typical NDT instruments, PAVision demonstrates **visible differences in beam focusing** of detected flaws. The high-resolution images it generates allow users to clearly differentiate between even the smallest groups of adjacent defects.

With high-quality images paired with the option to inspect with different scan types (sectorial/linear), PAVision is a powerful and versatile tool that will be suitable for any task at hand.

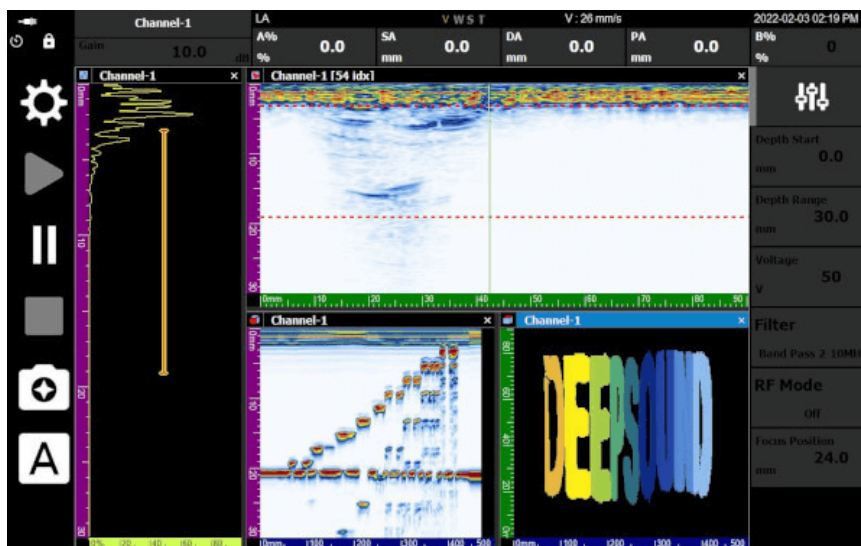
# Additional Features



## Utilizing Channel Groups

PAVision supports customizable Channel Groups.

The program also includes TOFD, enabling users to create various configurations, including the **PAUT + TOFD configuration**.



## Thickness Measurement

PAVision is capable of detecting **differences in corrosion thickness**.

These differences, which are distinguished by color, **allow for intuitive evaluation**, and the inspected data can be further examined by using DEEPSOUND's analysis program DSVIEWER.

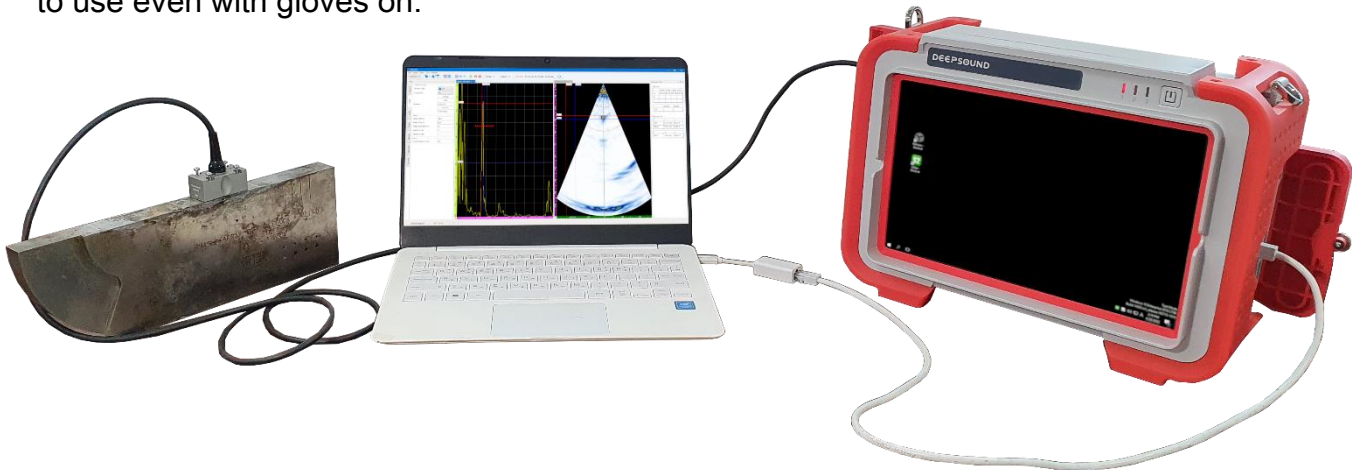
# Additional Features



## 12.1" Wide Display

DEEPSOUND P5 features a 12.1" display.

The wide display size is comfortable to look at, **reduces strain on the eyes**, and the responsive **pressure-sensitive touch screen** makes it easy to use even with gloves on.



\*Remote Program DSVision Separate purchase required

## Remote Connection

The DEEPSOUND P5's Remote feature allows users to run inspection programs on their desktops or laptops **via the LAN port**.

Take advantage of this feature **depending on the work environment** or when performing CPU-intensive tasks that **demand higher performance**.

# Specifications

## General

Dimensions(WxHxD)	340 x 257 x 147mm
Weight (With 3 x batteries)	5.9Kg
Power Supply	12V, 5A
Batteries	Li-ion, 48 Wh capacity (x3)
Operation Time	Up to 5 hours
Display	12.1" Wide Monitor 1280 x 800
Storage	64GB, expandable

## Connectivity

Ethernet	Fast Gigabit x 1
HDMI	x1
USB Port	USB 2.0 x1
Probe Port	TC-ZIF 260p Connector x1
UT Port	Lemo 00 UT Connector x4
Encoder Port	2-axis Encoder input ( D-sub 15pin 3row )

## Environmental

Operating Temperature	0 – 60°C
Storage Temperature Range	-20 – 80°C



# Specifications

## PA/UT Configuration

Effective Digitizing	100MHz
Max PRF	30kHz
Refresh Rate	30Hz
A-scan Height	300%

## Phased-Array

PAUT Channel Configurations	32:128PR
Scan Type	Linear, Sectorial, Conventional, TOFD
Focal Law	Unlimited
Channel Group	Up to 8
Focusing Mode	True-depth, Sound path

## Data Specifications

Maximum Number of A-scan Data Point	Up to 16384
Rectification	RF, Full wave
Filtering	Selection of Low-pass, Band-pass, High-pass
Video Filtering	Smoothing
TFM Raw Data Export	Yes

# Specifications

## Acoustic Specifications

Pulser	Voltage	25V ~ 160V ( 5V Step )
	Pulse Shape	Bipolar Pulse
	Pulse Width	50nsec ~ 2,000nsec
Receiver	Gain Range	0dB ~ 90dB
	Band Width	0.5 ~ 20MHz
	Sample Resolution	16bit
	Dynamic Sample Focusing	Yes

## FAQ

Do you have a Corrosion Mapping function?	Based on the defect signal in the gate range, the thickness difference is expressed on the C-scan screen.
What display layouts are supported?	A,S,C,D Scan Display Support
Do you have TFM/FMC function?	We have the TFM/FMC function, but we are selling it separately.
What is the purchase price of the TFM/FMC function?	Please inquire by e-mail.
Is there a multi-channel function?	It is provided by default.
Is there a TOFD function?	It is provided by default.
Can I configure PA, TOFD using multi-channel function?	Yes. Users can configure various channels.
Accessories (Probe / Wedge, etc.) How do I make a purchase request?	Please inquire by e-mail.
Is there a calibration function?	Yes, it consists of Velocity, Wedge delay, Sensitivity, TCG, and Encoder.
How do I update the program?	We plan to upload each program to the download list on our website.
Do you have a YouTube channel?	The channel name is DSPAUT.  We will continue to upload videos about manuals and techniques in the future.



### NDT Ultrasound Equipment Development

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