

# Ultra high power & Multi-waves

## Ultrasonic Pulser & Receiver



JPR-600C



JPR-1800C



JPR-10A



JPR-50P



JPR-50SD



Portable Pulser • Receiver



JPR-10C-8CH



Multiplexer



Pre-amplifier

# Ultra high power & Multi wave Ultrasonic Pulser & Receiver

## Features

- Output pulse type : Square pulse / Square burst / Square chirp / Square pulse
  - Frequency : 30kHz ~ 25MHz
  - Wave number : 1 ~ 300
  - Output pulse voltage : 10 ~ 1800V
  - Control : Change default settings, Acquiring & saving waveform on PC
- ※ The above specifications differ with each model.



JPR-600C

## Models

| Model   | Feature                  |
|---|--------------------------|
| JPR-600C  | High power (Standard)    |
| JPR-10CN  | High power (Basic)       |
| JPR-1800C                                       | High voltage             |
| JPR-10A   | Analog pulser            |
| JPR-50P   | High frequency           |
| JPR-50SD  | High frequency (compact) |
| JPR-10C-4CH                                     | Multi-channel (4ch)      |
| JPR-10C-8CH                                     | Multi-channel (8ch)      |
| ※Please contact us for detailed specifications. |                          |



JPR-50SD



Portable Model



Multi-Channel Model

- Each product can be remodeled into advance portable type. (Stored in specially designed case, and includes Control PC as an option.)
- Multi-channel pulser supports channel numbers apart from those listed in the table.

## Software

OJP Original Software is a standard accessory

- Software OS environments : Windows 7 / 10 (32bit/64bit)
- Main Functions : FFT, FFT Filter, Sound velocity/distance calculation, Waveform position detection, Waveform correlation, Averaging, Waveform saving/reading, Waveform data text conversion, Automatic saving of waveform

ODevice control "DLL" is provided as an option

- Using "DLL", allows the user for software development.
- DLL : Softwares below are available.

LabVIEW / MATLAB / Python / VB / VC

OWelcome customized software development.  
Please feel free to consult us.



JP Original Software

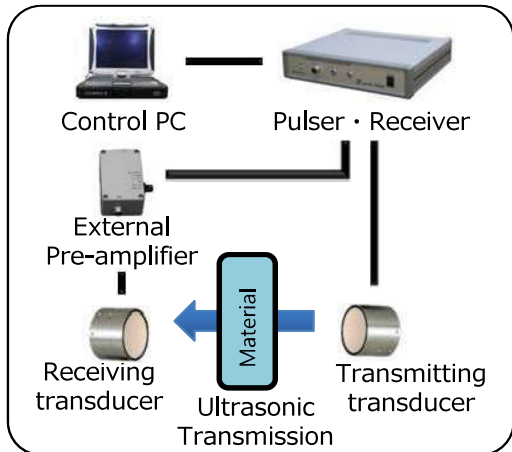
# Wide Range of Model Variations !

Easy Operation of Frequency/ Wave Number/ Output Voltage by PC !

Ideal for Flaw Detection & Measurement, R&D & In-line !

## Application

○ Non-Contact Air Coupled Ultrasonic testing



<System Configuration>

The high output of the Pulser · Receiver realizes ultrasonic transmission through the air, which was previously impossible due to large attenuation. It is non-contact and can be inspected without wetting them using couplant.

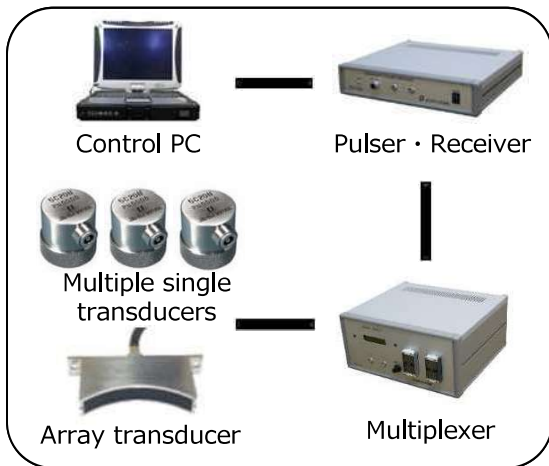


**Non-Contact Air coupled Ultrasonic Testing system (NAUT21)**

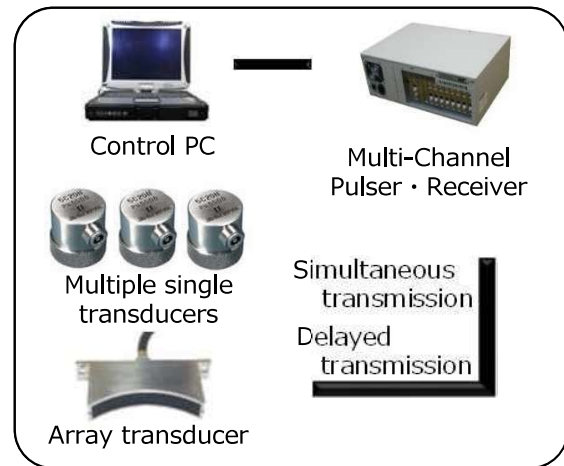
- Nonlinear detection
- Flow rate measurement
- Guided wave detection (Plate, Pipe, Rail)
- EMAT
- Concrete detection
- Testing & detection of high damping materials
- Ultrasonic research / Development / Learning materials, etc.

## Example of System Construction

○ Multiplexer



○ Multi-Channel Pulser · Receiver



Realizes high-precision measurement by controlling multiple channels at the same time using system incorporated Pulser · Receiver. In addition to this, it can be configured as a system to support various measurements. Please feel free to contact us.

## Option

- External Pre-amplifier
- Multiplexer (16 ~ 128 CH)
- Pulse generator
- Battery / charger
- Sine wave adapter, etc.



16 CH model



64 CH model

# Ultrasonic Phased Array Device for Strong Burst waves

# JAS21

## ■ Features

- Output : Low frequency and high power burst waves
- Control : Array transducer, Multi-channels & Multi-transducers by PC
- Simultaneous transmitting & receiving in all-channels



JAS21

## ■ Hardware Specifications

| Classifications                       | Functions · Specifications   |
|---------------------------------------|--|
| No. of transmission channel           | ~ 64 CH  |
| Pulse transmission control            | Control all channels transmission simultaneously or delay the time of each channel transmission / Output enable and disable can be selected for each channel |
| Output pulse voltage                  | 0 ~ -300Vmax (Variable as 10V units)   |
| Output waveform                       | Pulse (square wave) output<br>0 ~ -300Vmax negative pulse (negative polarity)  |
| Output wave number                    | 1 ~ 10 Waves (Burst waves output)  |
| Output pulse frequency                | 10kHz ~ 10MHz  |
| No. of receiving channel              | ~ 64 CH  |
| Amplifier circuit of receiving signal | Separate amplifier circuit for each receiving channel  |

※Please contact us for detailed specifications.

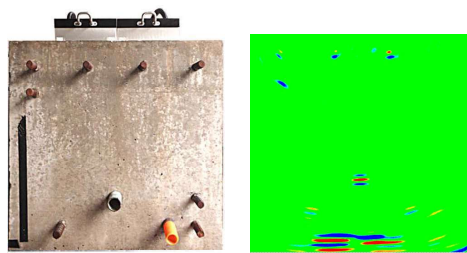
## ■ Software

We offer customized products based on customers' demands and needs.

- Phased Array (Linear scan / Sector scan)
- Multi-scan (Multiple single transducers)

## ■ Usage Example

- Weld flaw detection
- Concrete inspection
- Non-Contact Air Coupled Ultrasonic testing
- Photoacoustic system, etc.



Usage Example: Inner Image of Concrete Block (Depth 800mm)

※ Presented at the 24th Ultrasonic Nondestructive Evaluation Symposium (Jan. 24, 2017) 「Imaging of Both Upper and Lower Section on Concrete by Low Frequency Array Transducer」 「Joint Research」 : Kazuyuki Nakahata (Ehime University), JAPAN PROBE Co., Ltd., TOSHIBA PLANT SYSTEMS & SERVICES CORPORATION