

MULTI 2000 Pocket

Ultrasonic Phased Array System

A baseline tool to start with
Phased Array Techniques

- 8x32 Portable System
- Easy, Plug & Play
- Powered by USB 2

High Performance
in a Portable Device

- 16x64 System
- Battery Powered

- NDT simulation
- Flexible & User-friendly



UT field prediction
.....

Focal laws
computation
.....

Transducer
design
.....

Simulation
of NDT
configuration

Component
design
.....

Parameter setup
Data acquisition
Imaging

Pocket 8x32

Software	<ul style="list-style-type: none"> - Compatible with Multi2000 software (including CIVA NDT tools) performing all electronic scanning and related 2D & 3D corrected views, with user definable interfaces. - Windows XP Pro.
Phased array skills	<ul style="list-style-type: none"> - Fast multiplexing of 64 focal laws.
Digitizer	<ul style="list-style-type: none"> - Max. sampling frequency 100 MHz (adjustable : 100 to 6.6 MHz). - Digitising range: 8 bits. Input impedance: 50 Ω - Global delay : 0 up to 1.6 ms, step of 10ns. - Delay laws at transmission/reception: 0 to 20 μs, step of 2.5 ns. - Digitising depth: up to 4 000 samples.
Pulsers	<ul style="list-style-type: none"> - Adjustable voltage : 10 to 80 V with 1 V step. - Negative rectangular pulse, adjustable width : 30ns to 1.2 μs, step of 2.5 ns. Fall time < 10 ns (80 V, 50 Ω) - Max. PRF 10 KHz (2 KHz on Usb2), with change of focal laws.
Receiver	<ul style="list-style-type: none"> - Bandwidth : 0.8 to 20 MHz. - Adjustable gain on each channel from 0 to 80 dB. - Adjustable analogical DAC on 80 dB (max. 20 dB/μs) synchronized on events. - Cross-talk between two channels : > 50 dB - Max. input signal amplitude: 1 Vpp
Size	<ul style="list-style-type: none"> - Length: 200 mm, Width: 110 mm, Height: 55 mm, Weight 620 g.
I/O	<ul style="list-style-type: none"> - 1 Usb2, for parameters and data transfer, and for Power Supply. - 1 FRB (hypertronix) for phased array transducer. - 4 Encoders input.(option: 3 encoders, 1 external trigger) - External power supply input.



Pocket 16x64 (additional features)

Phased Array skills	<ul style="list-style-type: none"> - Fast multiplexing of focal laws stored on 32 Mb RAM (> 10 000 focal laws).
Digitizer	<ul style="list-style-type: none"> - Digitising range: 10 bits. Input impedance: 50 Ω - Digitising depth: up to 8 000 samples per elementary signals, 50 000 samples after summation. - Digital FIR filters.
Pulsers	<ul style="list-style-type: none"> - Max. PRF 20 KHz (5 KHz on battery), with change of focal laws.
Hardware processing	<ul style="list-style-type: none"> - 1 Virtex 4 FPGA allowing fast on-line processing (hardware gates..).
Size	<ul style="list-style-type: none"> - Length: 200 mm, Width: 145 mm, Height: 70 mm, Weight 1250 g (incl. battery).
I/O	<ul style="list-style-type: none"> - 1 USB2, for parameters and data transfer. - 2 Lemo for conventional transducers. - 3 encoder inputs. - External trigger input. - Removable battery

