



MultiX ++

acquisition	hardware acquisition gates , software gates, synchronization of gates acquisition trigger on event (threshold, echo, etc.), acquisition on user-specified trigger (e.g., time, coder) choice of data (e.g., RF, peaks, elementary A-Scan), real-time imaging , user-specified configuration public file format for parameters (XML) and data (binary), max. data flow 30 MB/s
phased-array	customized focusing , electronic scanning, sectorial scanning , full matrix capture (FMC) inspection modes : pulse-echo and transmit-receive modes, DDF with dynamic aperture 2GB hardware RAM (enabling fast multiplexing), corrected images (e.g., sectorial B-Scan, C-Scan)
pulsers	adjustable voltage : 30 to 200V with 1V step, negative rectangular pulse adjustable width : 30 ns to 625 ns, step of 2.5 ns, rise time < 10 ns (200V, 50 Ω), max. PRF : 30 KHz
receivers	bandwidth : 0.8 to 20MHz, adjustable gain on each channel from 0 to 80 dB adjustable analog DAC on 80 dB (max. 40 dB/μs) synchronized on events cross-talk between two channels > 50 dB, max. input signal amplitude: 0.8 Vpp
digitizer	digitizing and real-time summation on 32-channel boards, range : 12 bits, FIR filters max. sampling frequency : 100 MHz (adjustable from 100 MHz to 6.6 MHz) input impedance : 50 Ω, global delay : 0 up to 1.6 ms, step of 10 ns delay-laws at transmission/reception: 0 to 20 μs, step of 2.5 ns digitizing depth: up to 50,000 samples (16,000 samples max. per elementary channel)
embedded processors	FPGA on CPU-board
parallel processing	parallel summations for fast data acquisition / beam forming
hardware configuration	parallel architecture: 32-, 64-, 128-, and 256-channel systems are available
NDT simulation	CIVA subset into Multi2000 software, complete description of the inspection configuration focal-laws and associated ultrasonic field computation
compatibility	CIVA, NDT kit / ULTIS
platform	Windows-based PC, USB2 link between Hardware and PC (desktop or laptop)
dimensions	(32, 64, 128) L x W x H: 236 mm x 376 mm x 266 mm - Weight : ~9.5 kg (256) L x W x H: 342 mm x 376 mm x 266 mm - Weight : ~13 kg
I-O	(32, 64) 1 Hypertronix connector, (128) 2 Hypertronix connectors, (256) 4 Hypertronix connectors 8 encoders input, 31 analog input + 1 synchro output, 2 switch, 4 TTL inputs 4 TTL outputs, 8 analog outputs, 2 open collector, 1 I/O synchro, 1 USB2, 16 analog inputs 4 LEMO connectors (type 00) (up to 8 optional)

