

# Multix LF



## product line

**Heavy-duty.** Unique phased-array system optimized for low-frequency applications. Ideal for highly attenuative / heterogeneous materials such as thick composite, concrete and casted steels.



<b>acquisition</b>	hardware acquisition <b>gates</b> , software gates, synchronization of gates acquisition <b>trigger</b> on event (threshold, echo, etc.), acquisition on <b>user-specified</b> trigger (e.g., time, coder) choice of <b>data</b> (e.g., RF, peaks, elementary A-Scan), real-time <b>imaging</b> , user-specified configuration public file format for parameters (XML) and data (binary), max. data <b>flow</b> 30 MB/s
<b>phased-array</b>	<b>focusing</b> , electronic scanning, sectorial <b>scanning</b> , full matrix capture ( <b>FMC</b> ), smart flexible probe ( <b>TCI</b> )* inspection <b>modes</b> : pulse-echo and transmit-receive modes, <b>DDF</b> with dynamic aperture 32 MB hardware <b>RAM</b> (enabling fast multiplexing), corrected <b>images</b> (e.g., sectorial B-Scan, C-Scan)
<b>pulsers</b>	adjustable <b>voltage</b> : 30 to 400V with 1V step <b>burst and chirp</b> : more than 30 adjustable pulses negative rectangular <b>pulse</b> , adjustable <b>width</b> : 50 ns to 10µs, step of 2.5 ns <b>rise time</b> < 10 ns (400V, 50 Ω), max. <b>PRF</b> : 30 KHz
<b>receivers</b>	<b>bandwidth</b> : 50kHz to 20MHz, adjustable <b>gain</b> on each channel from 0 to 70 dB, <b>analog filters</b> adjustable analog <b>DAC</b> on 70 dB (max. 40 dB/µs) synchronized on events <b>cross-talk</b> between two channels > 45 dB, max. input <b>signal</b> amplitude: 2 Vpp
<b>digitizer</b>	digitizing and real-time <b>summation</b> on 4-channel boards, <b>range</b> : 12 bits, <b>FIR filters</b> max. <b>sampling frequency</b> : 100 MHz (adjustable from 100 MHz to 2 MHz) input <b>impedance</b> : 50-75-100-250 Ω, global <b>delay</b> : 0 up to 1.6 ms, step of 10 ns <b>delay-laws</b> at transmission/reception: 0 to 100 µs, step of 2,5 ns <b>digitizing</b> depth: up to 50,000 samples (8,000 samples max. per elementary channel)
<b>embedded processors</b>	2 CPU (power PC) on CPU-board
<b>hardware configuration</b>	parallel architecture: 16-, 32-, and 64-channel
<b>NDT simulation</b>	<b>CIVA subset</b> into Multi2000 software, complete description of the inspection configuration focal-laws and associated ultrasonic field computation
<b>compatibility</b>	CIVA, NDT kit / ULTIS
<b>platform</b>	Windows-based PC, USB2 link between Hardware and PC (desktop or laptop)
<b>dimensions</b>	(16,32) <b>L x W x H</b> : 342mm x 316 mm x 177mm - <b>Weight</b> : ~9 kg (64) <b>L x W x H</b> : 449mm x 335mm x 177mm - <b>Weight</b> : ~13,7 kg
<b>I-O</b>	1 Hypertronic connector, 8 encoders input, 2 ext. triggers 1 USB2, 16 analog inputs, 16-, 32- and 64-BNC connectors

\* optional