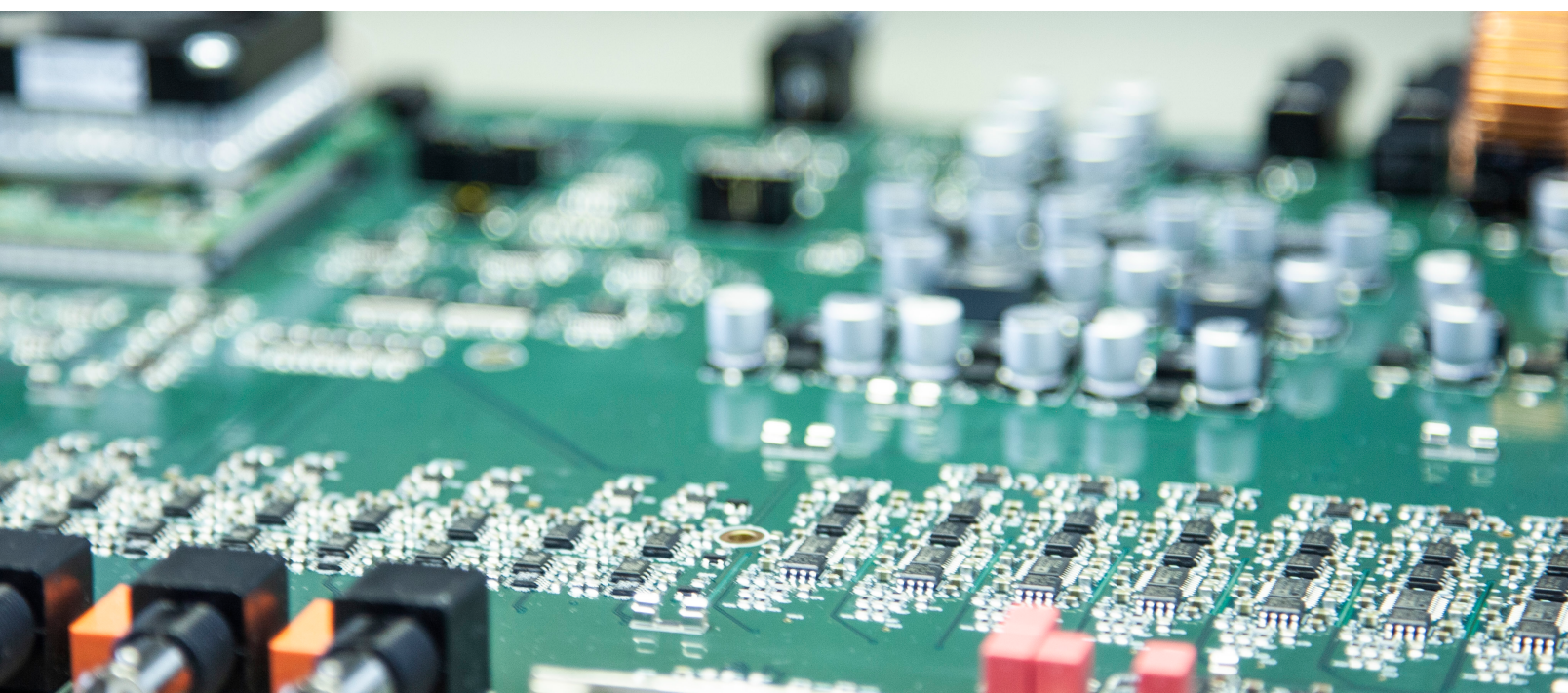
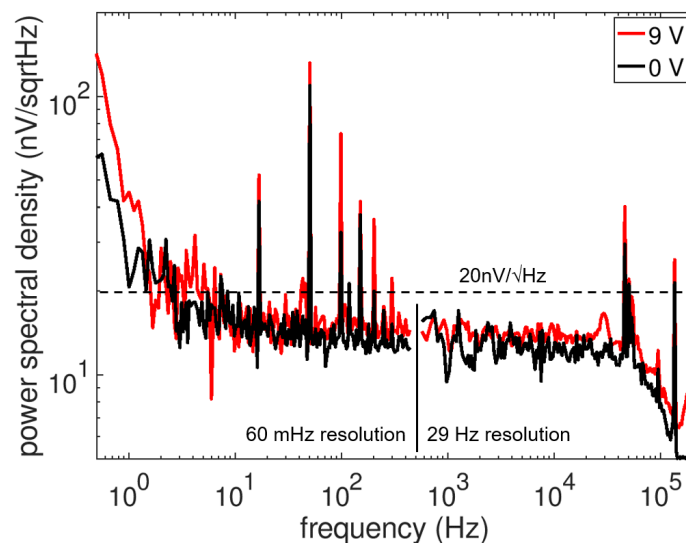
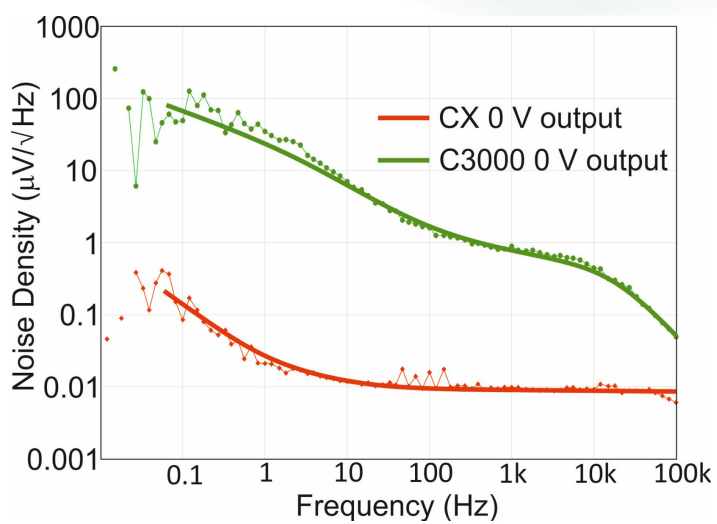
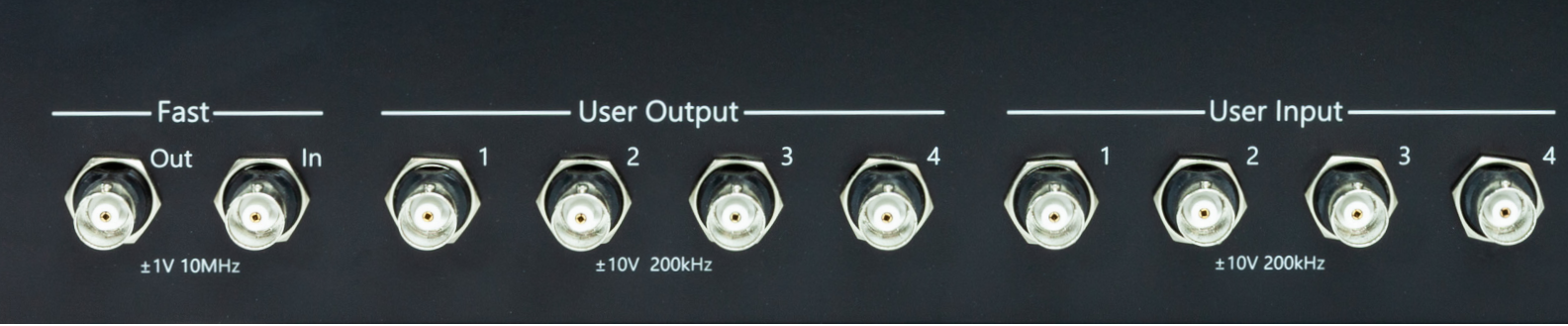


CX Controller



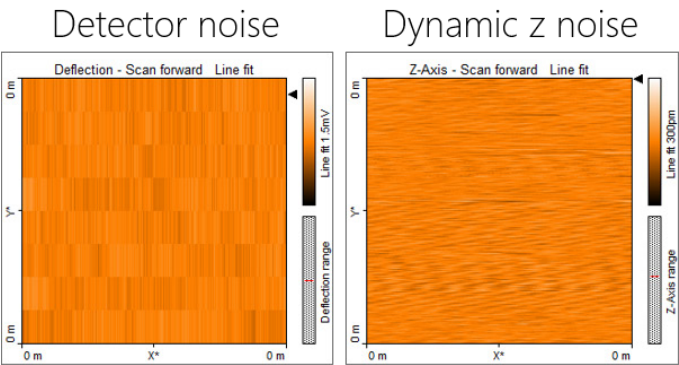
The new CX Controller



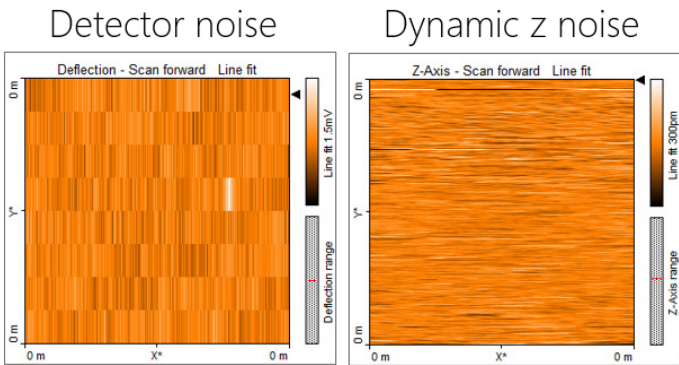


Performance of CX vs. C3000

CX-Flex



C3000-Flex



CX Controller specifications

High resolution outputs (DAC)	12x 28 bit, 1 MHz/sampling; thereof 4x user DAC, +-10V/3dB@200kHz
Fast outputs (DAC)	4x 16 bit, 100 MHz/sampling; thereof 1x user DAC, +-1V/3dB@10MHz
High resolution inputs (ADC)	10x 20 bit, 1 MHz/sampling; thereof 4x user ADC, +-10V/3dB@200kHz
Fast inputs (ADC)	3x 16 bit, 100 MHz/sampling; thereof 1x user ADC, +-1V/3dB@10MHz
Signal analyzers	2 signal analyzer function blocks that can be configured as dual channel lock-in or PLL with amplitude controller
FPGA module and embedded processor	System-on-Chip Module with Low-latency FPGA signal processing at 100MHz and dual-core ARM processor, 2GB-RAM, 1.5GHz clock
Scan control	28Bit X/Y/Z-DAC with +-10V/3dB@200kHz
Detector inputs	Deflection/Lateral-Signals each 16 bit/3dB@10MHz and 28Bit/3dB@200kHz Sum-Signal 28Bit/3dB@200kHz
Digital sync, Spike-Guard	2-bit line/frame sync out 5 V/TTL galvanic isolated, Spike-Guard input
Clock sync	10MHz/3V clock input to synchronize data acquisition and processing
Communication to PC	Gigabit Ethernet, galvanic isolated
Power consumption	12V/DC max.75W, galvanic isolated external power supply 100-240V/50-60Hz AC
Size	Width: 19" rack size, height 2HE, depth 28cm



CX Controller — functionality

Standard imaging modes	Static force, dynamic force, phase contrast, MFM, friction force, force modulation, spreading resistance, EFM
Imaging functions	Up to 8000×8000 data points X/Y sample slope correction
Standard spectroscopy modes	Force–distance, amplitude–distance, phase–distance Tip current–tip voltage
Spectroscopy functions	Setup wizard for each spectroscopy mode XY-position table: point, line, and grid (max. 64 positions)
Standard lithography modes	Free vector objects drawing or real-time drawing by mouse Tip lift or force control during movement from point to point
Sample approach	Fast home, retract, and advance movement Automatic approach with definable final end position Continuous or step-by-step approach mode



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