Specifikace vybraných parametrů LYRA 3 XM:

SEM Column	
Magnification	3x - 1,000,000x
Electron Gun	High brightness Schottky Emitter
Resolution (SE)	1.2 nm at 30 kV
Accelerating Voltage	200 V to 30 kV
Probe Current	2 pA to 100 nA

FIB Column	
Probe Current	1 pA to 40 nA
Accelerating Voltage	1 kV to 5 kV, 10kV to 30 kV
Gun Vacuum	$< 5 \times 10^{-6}$ Pa
Magnification	150x to 1,000,000x
Resolution (SE)	< 5 nm at 30 kV
Ion Gun	Ga liquid metal ion source

Chamber	
Internal diameter	300 mm (width) x 300 mm (depth)
Door Size	280 mm (width) x 310 mm (height)
Number of ports	9^{+}
Chamber suspension	active vibration isolation

Stage	
Type	5-axis fully motorized, compucentric
Movements	X = 130 mm Y = 130 mm Z = 100 mm Rot.: 360° continuous Tilt: -20° to +80°
Maximum Specimen Height	137 mm

LYRA 3 XM

FEG-SEM Specific Features

- High brightness Schottky emitter for high-resolution / high-current / low-noise imaging
- Unique three-lens **Wide Field Optics™** design offering the variety of working and displaying modes embodying the Tescan proprietary Intermediate Lens for the beam aperture optimization
- Real time **In-Flight Beam Tracing™** for the performance and spot optimization integrating the well established software Electron Optical Design
- Fast imaging rate with Tescan first class YAG-based detectors
- Fully automated microscope set-up including electron optics set-up and alignment

FIB Specific Features

- Unique ion optic column differentially pumped, with 2 ion pumps, for ultra-low ion scattering effect
- Motorized aperture changer with ultra-high reproducibility
- Beam Blanker and Faraday cup included as a standard
- Simultaneous SEM imaging with FIB etching or deposition

- FIB control is fully integrated in the SEM software
- Powerful toolbox for basic shapes creation with programmable process parameters

GIS Option Features

- Ideal geometrical configuration with respect to SEM and FIB columns
- 5 independent gas reservoirs with capillaries or optionally up to 3 individual "MonoGIS" systems
- 3-axis microstage with automatic nozzles positioning
- Automated temperature control