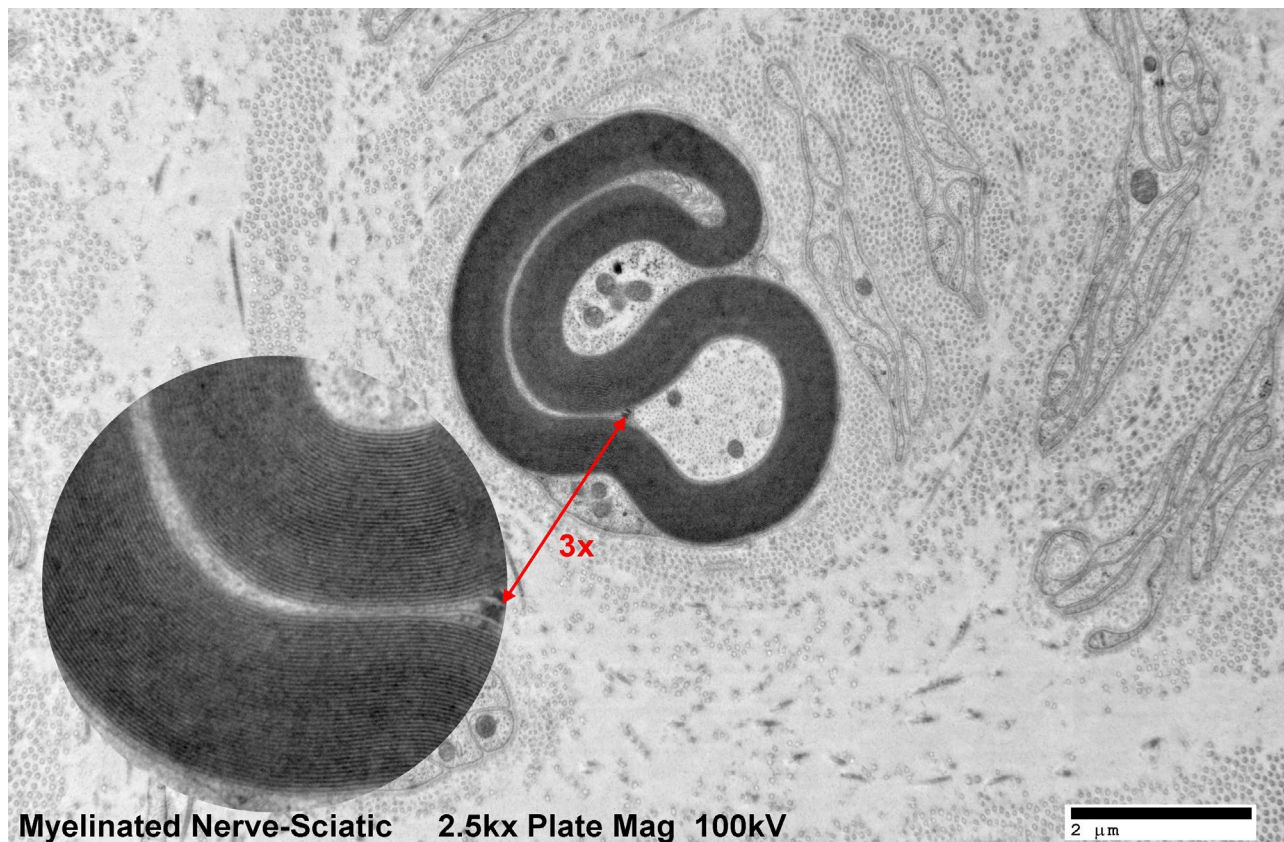


## NanoSprint12: 12 Megapixel CMOS TEM Camera

### NanoSprint12 System Overview:

The NanoSprint12 product includes an entirely new CMOS sensor that achieves high sensitivity and promotes high speed TEM imaging. This sensor offers a large 12Mpix sampling region while maintaining 55 frames per second [fps] readout.

With its generous field-of-view and 12 Mpix format, the NanoSprint12 is ideal for a wide range of applications. The high 55 fps frame rate allows users to output AVI files at full resolution. This system also comes with real time drift correction as a standard feature. The drift correction is able to work at full resolution and with live frame rates making it very easy to image beam sensitive samples.



NanoSprint 12 Specifications	
Sensor Size [pixels]	4096 × 3008
Phosphor Pixel Size [μm]	6.8 × 6.8
Active Pickup Region [mm]	28 x 21
Digitization	≥ 16 bits with frame accumulation
Mounting Position	Side Mount "35mm Port" & On-Axis
HT Range [kV]	20–200
Optical Coupling	Custom high performance lens
Lens Magnification	0.5
Lens NA <sub>image</sub>	0.22
Lens MTF at Nyquist [%]	40
Framerate for Display Image [fps]	55 binned
Cooling	Air
Micro Lenses	Yes
Shutter	Global
Exposure Time [ms]	0.1 - 10,000
Power	100-240VAC
Digital Interface	USB 3.0
Vacuum Compatibility	<10 <sup>-7</sup> torr
Vacuum Seals	Fixed o-ring
Environment	Electronics and cooling outside of vacuum
X-ray shielding limit	Up to 200kV
Certifications	UL, CE, RoHS
Computer OS	Windows 10 Professional 64 bit

