

Tecnai™ G² Spirit Specification Notes

General Features	
User-Friendly Windows xT Software	Icon interface for automated operating parameters: vacuum, accelerating voltage, aperture/spot size, magnification and focus, brightness/contrast, working distance calibration, mapping coordinates, beam optimization, image acquisition (TIFF)
Voltage	20-120 kV/LaB ₆ Transmission
Recall	Specimen position, magnification, illumination settings
Drift	< 1nm/min
Specimen Exchange	Change without switching off high tension and emitter
Objective Lens	
Line Resolution (nm)	0.20
Cs Objective (mm)	2.2
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Focal Length (mm)	2.8
Minimum Focus Step (nm)	3.0
Maximum Eucentric Tilt	+/- 60°
Magnification	18-650,000
Specimen Exchange Time	≤30 sec
High Tension Switching Time	≤1 minute
2K CCD 4 Mega pixel TEM Camera	
Operating Voltage	Up to 300 kV
CCD Field of View	61.2 X 61.2 mm ²
CCD/Pixel Size	2048 X 2048 pixels, 30 X 30 μm ²
Binning	1X, 2X, 3X
Read-Out Area	Full, half, or quarter
Magnification on CCD w/ Respect to Film	1.3 X
Peltier Cooling	-25°C
Read-Out Noise	< CCDe-
Read-Out Speed	2.5
Dynamic Range/Digitization	28,000:1/65,536 grey values (16 bit)
Non-Linearity	<1%
Gain Factor	Fully utilizes the AD converter range for each binning mode
Software	FEI CCD camera embedding (TEM Imaging & Analysis)