

	ATM 300	ATM 350
Resolution		
Resolution (X,Y)	0.5Å	0.5Å
Resolution (Z)	0.05Å	0.1Å
Range		
Scan Range (X, Y)	5µm, 2.5µm or 1.5µm* or 8µm, 4.1µm, or 2.5µm** scan tube options	5µm* or 8µm**
Offset Range (X,Y)	Up to 5µm, 2.5µm, 1.5µm* or up to 8 µm, 4.1µm, 2.5µm** Summed with Scan	Up to 5µm* or 8µm** - Summed with Scan
Z Range	0.65µm, 0.43µm, 0.32µm respectively w/ above options* or 1.08µm, 0.71µm, 0.53µm respectively w/ above options**	.73µm or 1.2µm*
Offset Range (Z)	0.73µm, independent of Z signal* or 1.2µm, independent of Z signal**	Up to 0.73µm* or 1.2µm**, summed with Z signal
* with SPM1000 +/- 130V ** with SPM1000HV +/- 215V output range		
Coarse Positioning		
Inertial X-Y Translation	~6.4mm (1/4")	~6.4mm (1/4")
Inertial X-Y Step Size	~ 200Å/step - 2000Å/step	~ 200Å/step - 2000Å/step
Inertial Z Translation	0.5mm	0.5mm
Inertial Z Step Size	~4Å/step - 40Å/step	~4Å/step - 40Å/step
Sample		
Sample Size	16mm dia. (5/8") - Ambient Sample Holder	10mm dia.
Image Area	6mm (1/4") Diameter	~5mm dia.
Scanner		
Type	"Johnny Walker" version of the Beetle™	"Johnny Walker" version of the Beetle™
Resonant Frequency	Structure > 5kHz	Structure > 1.7kHz
Thermal Drift (X, Y, and Z)	<1Å/min.	<1Å/min.
Other		
Tunneling Current	<1 pA (with IVP-300) to 100nA (with IVP-200)	<10 pA (with IVP-300) to 100nA (with IVP-200)
Bias Voltage	±1V or ±10V with 10 turn potentiometer resolution	±1V or ±10V with 10 turn potentiometer resolution