Hitachi NB5000 Premium FIB-SEM
Dual Beam System

Hitachi B5000 Premium FIB-SEM Du l B m Sys m

Ln #	Qty	Part Number	D ion	Unit Price	Ext. Price
		427-0034	Model NB5000 - Column and Display System Focused Ion & Electron Beam System for Specimen Preparation and Analy SEM Resolution: 1.0nm @ 15Kv FIB Resolution: 5nm @ 40Kv Main Unit includes: (1) FIB Column Vacc - 1Kv - 40Kv Ga Ion Source >50nA Max Beam Current (Operable) Max Current Density - 50A/cm2 minimum 2-Stage Electro Static Lens System Octopole Electro Static Lens System Aperture - Motor Drive CPU controlled System (Automated) 4K X 4K Pattern Generator System Section View Function - for low-K material observation Real Time Monitoring Function During Fabrication (Live Fabrication) Mill & Monitor (M&M) Function (2) SEM Column Vacc - 0.5Kv - 30Kv ZrO/W Schottky - Emission Electron Gun Max Beam Current - >30nA HV Tank(SE) 3 - Stage Electro Magnetic Lens Reduction System ElectroStatic Blanking System Everhart Thornley Upper Detector System ET (Plus) Lower Detector System - for ion beam and electron beam imaging/real time fabrication - Signal mixing for SE/BSE/ExB with user controlled electron energy detection biasi SE Power Supply Self Cleaning Type Thin-Film Objective Aperture 2560 X 1920 Image Memory Dual Monitor Simultaneous Display (3) Vacuum System Turbo Molecular Pump (300 l/s) Dry Pump (Without Cover) (250 l/s @60hz) (part # 427-0043) Accessory Kit for Dry Pump Ion source chamber Ion pump (20) Getter Pump (1 l/s) Electron gun chamber Ion pump (30 l) Intermediate chamber Ion pump (30 l/s) Anit-Vibration accessory Kit Two Buffer Tanks		

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			Required for Main Unit NB5000	
			(4) Complete Pneumatic Drive Package For air-driven valves in evacuation system. Air Compressor N2 Gas Leak System (part # 427-0070) N2 gas the leakage system using N2 gas instead of atmoshphere (air) for specimen exchange - specimen chamber, etc.... -- r 1/4 tapered externally -threaded joint is required	
			(5) Micro-Sampling System Hitachi Patented System Software interface fully integrated in Main GUI XYZ Range - 1X2X2.5mm 3 - axis Motor Drive System IN/OUT Air Drive System for Probe Evacuation IN/OUT Air Drive Dual GIS System W(CO)6/Phenanthrene Touch Detection Function for added Safety	
			(6) NB5000 Computer System Windows 7® Red Hat® Enterprise Linux® PC DUAL Liquid Crystal Monitors (Monil rd includ d) Hi-Mouse Software mous & board SEM/FI Con rol Pa	
			(7) Also Includes Ti Eucentric Stag 5 Axis Motor Drive yst m (50mm X 50mm) Mul Stage Con rol P nel Conso control Power Supply AC Power distribution Hardware Transformer Unit Vertical motion specimen Holder(30)- t ed, s ble without ation o specimens Specimen Stub(30 h 30mm dia for vertical motion s cimen der. Laser Sample Height Adju ool Manual Sample Height Adjust Tool UL/ MI compliance m Equipped wi rlock fun on on water s air pressure degradation vacuum degradation	
			(8) LAN Co ection Option (part # 427-0080) Modification to enable ethernet Unix Networking capability XP Networking capability Does not include configuration Does not include ethernet acce	
			(9) Chamber Scope (part # CHS06B-FIB) Compact Design, permits continuous of Specimen Chamber A must have for th NB5300	
			Power supply that Chamber Port Port w screw on cap IR Camera	
			AC/DC Adaptor Adjustment t port screws ---Function - Auto Focus ---Function - Freeze Function	
			(10) (Customized Modification) EDS not cluded (p # 427-0067) detector mod fica ion included Software Function added for Analysis Beam ipot Control by cursor, box, e etc.,	

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				EDS Communication Function [EDS Detector included]		
				(11) Kit for enabling CAD Na a Option Optional CAD Navigation Software separa ured Visual interface for FIB and CAD drawings –Astron/NASFA Corporation table		
2		427-0040		Side Entry o-Stage BN 4 axis motor-d (X, Y, Z, T) TEM Stage for s free transf to TEM Side Entry Stage Power Supply. Also includes - Revolver Mesh Holder BCN (HDxx/HFxx/H-xxxx compat P/N 427-0190 e Entry Auto-Stage required for STEM opt		
3				STEM Observation F STEM sma of thin e E Stage BN Hardware: (Motorized Solid State detector) wi sw be Bright Field/Dark Fi modes BF Stem Ho er included Software: tion Labor Software F tion Software Ser (Pa o: 427-0065 CLUDED) Software interface for insertion/ action and detector a Used in conjunction Side Entry-Auto Stage BN (P/ 427-0040)		
		427-0120		FIB Accelera. Lens Function Low V acce eration for enhanced imaging and at 5kV and below. Amorphous yer remova technology alled for ion column.		
	4	428-0178		Rev Mesh Common - For fabrication and observation of mera on a mesh grid. - Common Holder used between the B5000 (side entry stage) and the S-5500/SU9000 by the hold sleeve. - Used in conjunction wit Side Entry Stage BN (P/N427-004		
6		427-0047		Auto Fabrication Software e 27-0047] Image Recognition Function Auto - Bottom Cut for u-samples function included. o - Tilt function included. Auto - Fab Customiza process routines Macro - Tem tes can be saved Au o - Stage for tening multiple locations beyond of View - Reference Mark Pa erns for batch-processing o - Ex - Function for automatically turning off HV after auto-routine comple [Side Entry Stage BN Part#427-0040 recommended]		
7		427-0049		Auto Thinning Fabrication F tion [P/N#427-0049] - Thinning of specimen for Side-Entry Stage Auto - Fab Customiz process Macro - T tes can be saved Auto - Stage for m ening multiple locations beyond of View Mark - Reference Patterns for batch-processing Auto - Exit - Function for automatically turning off HV after aut completion [Requires 427-0047, Side Entry Stage BN Part#427-0040 recommended]		
8		427-0044		Holder microscope & Tablet Set ge ation Spec a alignment of the sample holder captured by Micro Zoom Camera and/or Tablet to a pos from a pa sed image. –The ured ages are s n on SEM GUI display via ca ure board att to the main and they can be saved by PC. –After inserting the sa holder into NB5000, image naviga us the picture of the holder m es it easy to search the observation site. Includes:		

#	y	Part Number		Unit Price
			CCD ure Pixel - approx. 380,000 pixels Mag - x100 and x50 (when attachment Lens is used) ination - White LED(selectable angle) white balance ion - AE full auto ion - Auto Focus ion - Freeze Function P: Contents: ( ) Micro-zoom Camera Outputs a video image as NTSC signal. (2) Coarse/f to adjust the focus (focal depth) of camera ge. (3) Table Stand used to place a specimen holder to be photographed. (4) Video Capture Board Installed in the NB5000 main unit to capture an image from the camera into the PC. (5) Objective Lens [50×] - Replacement lens • The camera main unit is equipped with the standard objective lens [100×].	
9			High Resolution Mill and Monitor Function [HR M&M] Advanced segmentation imaging in Semi-in-the-Lens mode with ion milling. Fine pitch compensation function for image sequencing capture Auto-EM Obj Lens shut off function for EM/IM alternating when milling/imaging Auto-Degauss function for AOI [Area Of Interest] retention	
10		S K03821	NB5000 Cold Trap Dual function LN2 cold trap and cold Compatible with NB5000 Cryo system Contamination reduction technology and improves SC chamber va um Also includes: LN2 injec port F Funnel support Cold Trap , accessories	
11		427-0128	Mill & Mapping Capability [3D EDS Function] Advanced segmentation imaging with ion Fine pitch compensation function for image sequencing capture Auto-EM Obj Lens shut off function for M alternating when m A -Degauss function for AOI [Area Of Interest] retention Hitachi DirectCom for EDS Auto acquisition per segement EDS Map Resolution to 2048X1600 pixels supported Required: EDAX TEAM Software Version 3.4.1 or later NB5000 PCSEM are Version 02.60 or later	
2		427-0973	ST Holder BCN H esolution observation in SEM for bulk sample or mesh sample with Side Entry Stage Used for Optimum Working Distance (OWD) for Hi-resolution SEM imaging The ST holder BCN is designed as a specimen holder capable of mounting an tandard stub for side-entry stage operation, which is applicable to the FIB and FIB-SEM systems manufactured by Hitachi High-Technologies Corporation Used in conjunction with Side Entry-Auto Stage BN (P/N 427-0040)	
13		427-0193	Flip Holder BCN - Backside ion milling for reducing curtaining effects and planar milling of from substrate - For s Entry Auto-Stage BN. - Compa FIB-SEM	
14		427-0181	3D Mesh Holder For fabrication and 360 degree observation of lamella on a mesh Com H st e TEM/STEM e fabrication capability] wi ful ents. Compatible for FIB-SEM/FB-2xxx series -2700 (sta ard only) Used in conjunction with Side Entry-Auto tage BN (P/N 427-0040)	

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#	Part		Ext. Price
		deconvolution Electron Microscope ace f Beam Control Stage Software enables control of microscope stage (X, Y and Z axes) through EDAX software. Offered if access controls are available from electron microscope. Column Software enables control of reading and changing of electron microscope column parameters through EDAX software. Offered if capability available on electron microscope. X1 Analyzer (minimum specification) o Intel i7-2600 processor (3.4 GHz, 8 MB cache, 4 cores) o Windows 7 Ultimate 64-bit Operating System o 16 GB RAM o 500 GB Hard Drive o SATA DVD Writer o Microsoft Office 2010 Home & Business o Testing and modifications by the factory prior to shipmen 22" Widescreen Flat Panel LCD Monitor Installation of system and initial familiarization training performed on-site by trained service engineer.	
1	PV6060/50	TEAM 3D for Hitachi TEAM 3D EDS API for Hitachi Requires a current installation of TEAM(TM) EDS with EDAX hardware. Part number to be ordered by and delivered to Hitachi only.	