



Microfabrication Equipment List

Categories	Description	Manufacturer	Model #
Lithography & Microfabrication			
	Front and back side Mask alignment system (200 mm)	EVG	EVG-610
	Mask cleaner	SSEC	156-SCE
	Lithography oven	VWR	1602
	Vacuum oven	Yield Engineering System Inc	450PB6-2P
	Automatic spinner	Brewer Science - CEE	100 CB
	Automatic development system	Brewer Science - CEE	100 CB
	Manual spinner	Brewer Science - CEE	100 CB
	HMDS vapor prime	Brewer Science - CEE	100 HMDS
	I-line stepper	Canon	FPA-2500i3
	Printed electronics/photronics inkjet and aerosol-jet system with NIR and UV annealing	Ceradrop	F-Series
Dry etching			
	Chlorine R.I.E (reactive ion etching)	Plasma therm	790 series
	Fluorine R.I.E (reactive ion etching)	Plasma Therm	790 series
	Uncooled plasma asher	Anatech Ltd	SCE 600 Quartz 10
	Fluorine 10 inch square R.I.E. (reactive ion etching)	Plasma therm	790 series
	Cooled plasma asher	Anatech Ltd	SCE 600 Quartz 10
	Plasma cleaner	March	PX-500
Back end (Packaging)			
	Flip chip bonder	Finetech	Fineplacer Sigma
	Dicing saw	Disco Hi-Tec America Inc.	DAD 320
	Laser marking	GSI Lumonics Inc	XY15MM YAG
	Manual wirebonder	Hybond	572-31
	Glove box	INO	
	Vacuum packaging system	INO	
	Flip chip bonder	Finetech	A4 (145)
	Semi-automatic wirebonder	F&K delvotec	5632
	Environmental oven	Espec	ECT
	Vacuum furnace	SST	3150
	Pinching station for vacuum sealing	INO	Gen V
	High-precision micro-assembly system with laser welding and UV epoxy gluing	Nanosystec GmbH	NanoGlue

Measurements and tests			
	Profilometer	Sloan Technology Corporation	DEKTAK /ST
	Surface contact profilometer	Bruker inc.	DEKTAK XT-Advanced
	Interferometric microscope	Nikon Canada inc	
	AFM (atomical force microscope)	Digital instrument	3000
	Probe station	Test force system	REL-4008
	Stress measurement	KLA-Tencor	FLX 2320
	Spectroscopic ellipsometer	J.A. Woollam	V-Vase
	Leak detector	Varian	VSMD301
	Particule counter	Met one	3413
	Probe station	Suss MicroTec	PM-8
	Wafer inspection station	Olympus	MX61A
	Thin film thickness mapper	Filmetrics	F50-HS
	Portable particule counter	Met one	HHPC-2A
	Spectrometer FTIR with integrating sphere	Bruker Optics Ltd.	Vertex-70
	Confocal microscope	Olympus	OLS31-SU
	Spectrometer	Perkin Elmer	Lambda 950
	SEM (Scanning Electrion Microscope)	HITACHI High-Technologies Canada Inc.	S-3400N
	EDS (Energy Dispersive Spectroscopy)	Oxford instrument	Inca
	Digital microscope	Keyence	VHX-1000
	Digital optical microscope	Nikon	Eclipse L200N
	Resistivity and TCR probe station	Signatone	QuadPro
	Visible spectrometer	Perkin Elmer	Lambda 19
	GRM characterization system	INO	
	Semi-automatic vacuum probing system	SemiProbe	SAVP-8
Environmental chamber			
	Environmental chamber 41 inch	Phytronix	
	Environmental chamber 15 inch	INO	
	Dry box	Terra universal	
	Vacuum jar	Abdess Instruments and system INC	
Cleaning			
	Sandblast	Canablast	DCM-160-6
Thin films			
	Reactive sputtering system for metals and dielectrics deposition	Semicore	PRO-473 Tri-axis
	Sputtering and evaporation chamber with 3-inch targets for metal deposition	INO	A1583
	Sputtering system with 6-inch targets for metal deposition	INO	A1582
	PECVD for silicon oxide, nitride and oxynitride deposition	Plasma-Therm	790S
	Reactive sputtering deposition system for vanadium and its oxides	CVC products	308414
	Box coater BAK760 for infrared optical thin films deposition	Balzers	BAK760
	Box coater BAP800 for oxides optical thin films deposition	Balzers	BAP800
	Gold black evaporation chamber	INO	C0945