## Equipment Rates

### Dispositional Tools
- CPA Mark 30 Evaporation (superuser tool) 1.00 $25/hr $50/hr
- E-Beam 1 evaporation (Temescal CV-8) 3.00 $15/hr $45/hr
- E-Beam 2 evaporation (Temescal CV-14) (superuser tool) 3.00 $15/hr $45/hr
- DMS-Thermal evaporation (SEC-600-WAP) 3.00 $20/hr $60/hr
- PE 1400 Sputtering (superuser tool) 3.00 $15/hr $45/hr
- PE 2400-A Sputtering (superuser tool) 3.00 $15/hr $45/hr
- PE 4000-B Sputtering (superuser tool) 3.00 $15/hr $45/hr
- Electric Platting no charge no charge
- AAO Atomic Layer Deposition Cambridge No Min $10/hr $25/hr
- Applied M91 MVD 100 0.50 $20/hr $50/hr

### Lithography Tools
- Canon i4 4000 Stepper (superuser tool) 0.25 $150/hr $300/hr
- Karl Suss M400 Mask Aligner 0.50 $30/hr $60/hr
- Karl Suss M600 Mask Aligner 0.50 $30/hr $60/hr
- Karl Suss M800 Mask Aligner 0.50 $20/hr $40/hr
- Kaspar Mask Aligner model 3001 0.50 $20/hr $40/hr
- Quintet Mask Aligner 0.50 $20/hr $40/hr
- UV Hold exposure system 0.25 $15/hr $30/hr
- Spinners no Min $10/hr $25/hr

### Dry Etching
- SPTS System DRIE 0.50 $40/hr $80/hr
- New SPTS DRIE 0.50 $40/hr $80/hr
- PlasmaTherm RIE Model 780 0.50 $35/hr $70/hr
- Triion ICP/RIE 0.50 $35/hr $70/hr
- Ion Milling 3.00 $15/hr $45/hr
- Kei-2 Pushing Etcher 0.50 $5/hr $15/hr
- Plasma Technology Model 800MP RIE 0.50 $35/hr $70/hr
- Plasma Technology Model DP800 (LP) 0.50 $30/hr $60/hr
- Laser Ablation Tool Resonetics RAPIDX250 0.50 $45/hr $90/hr

### Plasma-Patterning
- Actonics Downstream Plasma Ashing 0.25 $20/hr $40/hr
- Technics II 500 0.25 $15/hr $30/hr
- Plasma line etcher 0.25 $15/hr $30/hr
- Analoch L10 Plasma SPT01 0.25 $15/hr $30/hr

### Hot Embossing
- Nano Imprinter Jenoptek Hi603 0.50 $40/hr $80/hr

### CVD System
- Plasma-Therm PECVD Model 780 1.00 $20/hr $50/hr
- BAR Low Temp PECVD (superuser tool) 0.50 $20/hr $40/hr
- Ancon LTO CVD (superuser tool) 0.50 $20/hr $40/hr
- ASM LPCVD low-stress nitride, poly (superuser tool) 1.00 No Charge No Charge
- STS Nano Furnace (Easy Tube 3000) No Min $45/hr $90/hr

### Diffusion Furnaces
- 6 inch Dry and Wet Oxidation Tube (superuser tool) 1.00 $10/hr $20/hr
- 4 inch Dry Oxidation Tube 1.00 $10/hr $20/hr
- 4 inch long anneal Tube 1.00 $10/hr $20/hr
- 4 inch sintering Tube 1.00 $10/hr $20/hr
- 4 inch Boron Tube (superuser tool) 1.00 $15/hr $30/hr
- 3 inch Nano furnace Tube (superuser tool) 1.00 $10/hr $20/hr
- 6 inch mini-brute thermal bonding Tube 1.00 $10/hr $20/hr
- 4 inch mini-brute Tube 1.00 $10/hr $20/hr
- Heatpulse 810 RFA 0.50 $25/hr $50/hr
- Anodic Bonding Furnace up to 4 inch (superuser tool) 1.00 $5/hr $15/hr

### Characterization
- SEM Hitachi 4700 / EDAX 0.50 $40/hr $80/hr
- HZOPS Cone/Scalpel Microscope / Profiler (superuser tool) 0.50 $20/hr $40/hr
- X-Scan 0.50 $20/hr $40/hr
- Tencor FLX-320/3A Stress measurement tool No Min No Charge No Charge
- Nanometrics AFM / Nanometrics 200 No Min No Charge No Charge
- Guinther ellipsometer (superuser tool) No Min No Charge No Charge
- Toumieux 815C CPD (superuser tool) 1.00 $25/hr $50/hr

### Back-End Processing Tools
- K&S 780 Dicing Saw (superuser tool) 0.50 $20/hr $40/hr
- K&S Wedge Bonder 0.50 $20/hr $40/hr
- K&S Gold Ball Bonder 0.50 $20/hr $40/hr
- Hybrid Ball Bonder 0.50 $20/hr $40/hr
- Cincinnati Sub-Zero Environmental chamber 1.00 $20/hr $40/hr
- Tenney Environmental chamber 1.00 $20/hr $40/hr
- Micro Environment M Oven 800 Degree 1.00 $5/hr $10/hr
- HDMS Oven 1.00 $5/hr $10/hr

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1. The Cleanroom Usage Monthly Cap is applied per account. The Equipment Monthly Cap is applied per tool usage for each account, service requests and staff training are not included.
2. The Sponsor Cap Rate applies to Government or Academic Sponsored projects.