REQUEST FOR PROPOSAL & SPECIFICATION DOCUMENT
MEMS & NANOFABRICATION SEMICONDUCTOR CLEANROOM FACILITY

ANNEXURE 3

Equipment Power Rating as per the process equipments.

Annexure 3

Equipment Power Rating

SL no:	**Cleanroom Area**	**Equipment under UPS**	**Phase**	**Power utility in KW**	**Frequency and V I ratings**	**Diversity factor**
1	**CLASS 100 (ISO5)**	Mask aligner	1Phase	3.68 kW (Main system) + 2.76 kW (CDA pump to be kept in service corridor)	230V/20A,50Hz + 230V/16A,50Hz (CDA pump to be kept in service corridor)	0.4
2		Optical Microscope	1Phase	1.84 kW	230V/10A,50Hz	0.4
3		Solvent Bench + Spinner, Hotplate	Solvent Bench to be provided by vendor	Solvent bench Approx. 2 KW Spinner-300 W (2 nos) Hotplate-1.4 kW(2 Nos)		0.4
4		SEM/E beam lithography ***	1Phase	2.5 kW	230V/13A,50Hz	0.4
5		Wafer Bonder***	1Phase	3.6 kW	230V/20A,50Hz	0.4
6	**CLASS 1000 (ISO6)**	ICP RIE System	3Phase N+E	28 kW	400 V/ 63 A MCB for the system	0.4
7		ICP CVD	3Phase N+E	28 kW (Heat load as per tool data sheet 3.5 kW)	400 V/ 63 A MCB for the system	0.4

8		DC/RF Sputtering System	3Phase	36.2 KW (for main system)	415V,63A (A)MCB for the system with the rating provided. (B)Chiller to be kept outside with additional 15A (C) CDA -Additional 15 A	0.4
9		Plasma Etch system for MoS2	1Phase	3.68kW	230V/20A Universal 3 pin convertor socket (15A)- 3 no's(Main System, Vacuum Pump Chiller (to be placed in corridor	0.4
10		Parylene Deposition system with Chiller	1Phase	2.76KW (for system) + 2.76KW (for chiller)	230V,15A Universal 3 pin convertor socket (15A)- 2 no's (Main System, Chiller to be kept inside the clearnoom)	0.4
11		Annealing Furnace	3Phase	9.2 kW	440 V MCB 16 A	0.4
12		XeF2 Silicon etch system***	1Phase	1.92 kW	240V/10A,50Hz	0.4
13		E beam evaporator***	3Phase	36.2 KW	415V,63A	0.4
14		RTA***	1Phase	30KW		0.4

15		ALD***	1 Phase	30 kW	230V/10A,	0.5
16		Critical point dry (CPD)***	1Phase	1.84 kW	230V/10A, 5/15A Socket-1no.	0.3
17		Thin film measurement-2 systems/Profilometer and Ellipsometer***	1Phase	2.9 kW	230V/16 A	0.4
18		Fridge	1Phase	2.9 kW	230V/16 A	1
19		Computers (5 nos)	1Phase	0.9 kW(each)	230V/5 A	0.5
20	**WET ETCH Area class 1000 (ISO6)**	Chemical Storage				
		Wet Bench with Hotplate, stirrer etc.		Approx. 2 kW(2 Nos)		
21	**GOWNING Class 10000 (ISO 7)**	Garment Storage			To be supplied by vendor	
22	**GAS CABINET**	**GAS CABINETs and accessories**	To be provided by vendor			
23	**BMS & Safety Systems**		To be provided by vendor			
23	**SERVICE CORRIDOR**	This area houses dedicated portable chillers and pumps for process equipments 4 x Chiller (chiller with 4GPM, 15 C, at 80-100 psi.)				