1.1 Purpose: OM Review
1.2 Model: OST3200

2.PROCESS AND EQUIPMENT REQUIREMENTS

Unit	Configuration		
1. Microscope	1) Objective lens	Combination	**2.5X, 5 X, 10 X, 20X, 50 X ELWD, 100 X ELWD**
	2) Eyepiece	FOV	**25**
	3) Eyepiece tubes	Type	**Trinocular**
	4) Illumination	Light source	**Halogen**
	5) Focus	Auto focus	
	6) Filter Option	Standard (FFU equipped)	
2. Stage	1) X Y Stage	**High accuracy stage**	
3. Loading units	1) Wafer size	**8 inch**	
	2) Load Port Type	**Open**	
	3) Slot type	**25slots**	
	4) Load Port layout	**Side layout**	
4. Macro	1) Macro stage	Function	**Surface , Back center, Back edge**
	*2) Illumination	* Light source	LED Wide+ LED LINE+ Spot
5. Enclosure	1) Type	Standard (FFU equipped)	
6. Controller	1) Control unit	**Standard(15 inch LCD touch panel)**	
7. Software	1) Main software version	**Standard (English , Windows)**	
8. Option	*1) Micro image capture set	* Need(Auto)	
	*2) Macro image capture set	* Need (Auto)	
	*3) Signal Tower	* Need	
	*4) Review Function	* Need	

	*5) Wafer map Software	* Need
	*6) Online Software	* Need
	*7) Cassette Reader	* Need (smart teg)
	*8) Edge chipping	* Need
9. Special request	*1) Fixing parts for anti-earthquake	* Need
	*2) Bow wafer handling rotation arm	* Need
	*3) Macro Door Open Type	* Need

Power: 200V±10%，50/60Hz，6.4kVA，

3.1 Microscope unit

3.1.1 Microscope Optical System

3.1.2 Microscope Illumination Part

3.1.3 Auto Focus Part

3.2 Stage unit

3.2.1 X-Y stage part

3.2.2 Zθ Rotation System

3.2.3 Pre-Alignment Part

3.3 Loader unit

3.3.1 Robot Arm part

3.3.2 Transfer Arm unit

3.3.3 SMIF POD opener

3.4 Macro observation unit

3.5 Control part

3.6 Operation table

3.7 Vibration isolation table

4.1 Microscope unit

4.1.1 Microscope Optical System: Nikon CFI 60-2 Infinity Optical System

4.1.2 Observation method Bright/Dark field observation (DIC observation as option)

4.1.3 Objective Lens: For Bright/Dark field observation

4.1.4 TU Plan BD , 5X,10×, 20×, 50×、100×,EPI 2.5×,Maximum 6 pieces objectives can be mounted. Eyepiece: CFI UW 10×(Field Number φ25)

4.1.5 Extended Eyepiece Tube: UW Trinocular Tilting Eyepiece Tube "TL" Observation Image : Erect, Tilting angle : 0° ~ 22.5° from horizontal;(Beam split ratio: Observation: TV (Photo) = 100: 0 or 20: 80 %)

4.1.6 Revolver: Motorized universal revolver for 6 pieces objectives

4.1.7 Microscope Illumination Part

- Standard Illumination: 12V100W (or 50W) Halogen lamp (Pre-center lamphouse)

4.1.8 Auto Focus Part

- Detection method: LED Slit Projection method (Light source: LED wave length 770±30 nm)
- Applicable Microscopy: Bright Field, Dark Field
- Applicable Objective Lens: 10× ~ 150× excepting for 5×

4.2 Stage unit

4.2.1 X-Y stage part

- Observation Field: Whole field of 200mm wafer
- Stage repeatability : X,Y ≦ 2μm (3σ)

4.2.2 θrotating function

- Rotation angle: 360°
- Chuck Material: Conductive Peek

4.2.3 Pre-Alignment Part

- Pre-Alignment Method: Non-contact pre alignment method
- Loading repeatability: θ ≦ ±4 arcmin
- X.Y ≦ ±25μm (3σ)

4.3 Loader unit

4.3.1 Loading robot arm part

- Loading method: High speed loading with single arm
- Chuck Material: Conductive PEEK

4.3.2 Load port part (Versa Port Bolts Type Smart Tag)

4.3.3 Load port: ASSY, -2WBOLTS FW-0103(Made by Brooks) SMIF POD Opener (mapping sensor: Laser) with smart tag reader function

4.3.4 Load port position: Side Position

4.4 Macro observation unit (Option)

4.4.1 Surface Macro Unit

- θrotation: 360°(CW/CCW)
- Rotation speed: 0 (stop) ~ 30 rpm
- Inclination X and Y axis angle: Surface: +26° ~ -26°(Both by joystick and by GUI volume)

- Chuck Material: Conductive Peek

4.4.2 Back side Macro inspection (Center chuck)

- θrotation: 360°(CW/CCW)
- Rotation speed: 0 (stop) ~ 30 rpm
- Inclination Y axis angle: 63°~ 88°
- Chuck Part: Common use of surface macro part

4.4.3 Backside Macro inspection (Perimeter chuck)

- Inclination angle: 86°~ 116°
- Chuck Material: Conductive Peek
- + Direction is toward operator from front point of view

4.4.4 Macro Illumination part

- Halogen lamp for 3Spots fiber type
- Averaged life time of illuminators: 2000 hours

4.5 Control part

4.5.1 PC: DOS/V compatible machine

4.5.2 OS: Microsoft Windows 7

4.5.3 Monitor: 15inch LCD Touch panel display

4.5.4 UPS: For protection of PC internal data (standard)

4.6 Operation table

4.6.1 Operation switch for microscope:

- To change magnification of objectives
- To change observation method: Bright field/ Dark field
- To adjust aperture diaphragm

- Joysticks for Macro and Microscope Stage
- AF offset volume; AF ON/OFF key
- Volume for light intensity control of lamp
- Emergency Shut down key
- Power ON/OFF switch

4.7 Vibration isolation table: Spring GEL type