Enhanced observation performance and operation

Epi-fluorescence observation widens inspection range—including 365 nm UV excitation

- Diascopic illumination capability and various observation methods such as brightfield, darkfield, simple polarizing, and DIC are possible.
- Highly beneficial when inspecting semiconductor resist residues and organic electroluminescence displays

**Stronger safeguard against contamination**

- Antistatic coatings applied to the body, stage, eyepiece tube and other various controls
- Prevents damage to samples and contributes to higher yields

**Observation at optimum eyepoint level**

- Ultra-wide 25-mm field of view and eyepiece angle adjustment between 0° and 30°
- Operators can adjust eyepoint level to ensure a comfortable viewing position

**Front operation with easy access**

- Minimizes fatigue during lengthy observations

**Target for easier focusing**

- Insert a focusing target in the optical path to easily focus on low-contrast samples, such as bare wafers.

**Fixed-position X-Y fine movement control**

- Allows for stage movements and focusing to be carried out with ease

**Illumination**

**LED**

Compact LED illuminators are power saving and achieve long life.

**Intensilight**

- Motorized mercury precentered fiber illuminator for epi-fluorescence observation, with variable light intensity and shutter control, provide excellent flexibility. Lamp centering and focus adjustment are not necessary.

**Filter blocks**

For epi-fluorescence observation

- C-FL UV-2A / C-FL B-2A
- C-FL V-2A / C-FL G-2A
- C-FL BV-2A

**LV-LL LED Lamphouse**

For ø300 mm wafer/ Episcopic illumination type

**L300N**

For 17-inch FPD/ Episcopic and Diascopic illumination type

**L300ND**

For ø200 mm wafer/ Episcopic illumination type

**L200N**

For ø200 mm wafer/ Episcopic and Diascopic illumination type

**L200ND**
**Digital cameras**

**Microscope camera**

- **DS-Ri2**: Stand-Alone Model
  - Capable of expressing images as is, DS-Ri2 offers high resolution, color reproduction, and frame rate. The Stand-Alone Model enables high-definition image acquisition without a control unit.

**Microscope camera**

- **DS-Fi3**
  - Features high-resolution, high sensitivity/low noise, and high-speed live display, all in one camera.

**Microscope camera control unit**

- **DS-L4**
  - DS-L4 can be connected to the DS-L4 tablet-style control unit, eliminating the need and space requirements of a desktop PC.

**Imaging software**

- **NIS-Elements series**
  - **Image Stitching**
    - Stitches together images acquired from multiple fields of view to create one image.
  - **Scene Mode**
    - Optimal imaging parameters for each sample type and observation method can easily be set through the icons.
  - **Variety of Tool Features**
    - Enables easy measurements directly on the images, with input of lines and comments. Measurements can be written and saved with the image, and data can be output.

**Accessories**

**Objective lenses**

**Standard objective lenses**

- **TU Plan Fluor Series**
  - Enable brightfield, darkfield, simple polarizing, sensitive polarizing, differential interference, and epifluorescence observations with just one lens. Achieves superior chromatic aberration performance with long working distance for all magnifications to adapt to any application.

**Low-magnification objective lenses**

- **T Plan EPI**
  - By using phase Fresnel lenses, these objective lenses achieve significantly longer operating distances while maintaining the superior chromatic aberration performance of apochromatic lenses.

**Apochromatic objective lenses**

- **TU Plan Apo Series**
  - Lenses with correction mechanism

**Long working distance objective lenses**

- **TU Plan ELWD Series**
  - With the phase Fresnel lenses, these objective lenses enable long working distances while offering higher level chromatic aberration correction than conventional objective lenses. This improves operability for samples with different heights.

**Lenses with correction mechanism**

- **CFI L Plan EPI CR Series**
  - Enables easy measurements directly on the images, with input of lines and comments. Measurements can be written and saved with the image, and data can be output.

* See the "Digital Camera Digital Sight Series for Microscopes" catalog for details on Digital Sight features.
Wafer loader NWL200

Combined with the NWL200 wafer loader, the ECLIPSE L200N meets requirements for wafer inspections.

Support for ultra-thin 100 μm wafers
• NWL200 series provides levels of safety and reliability that meet all requirements for inspection of the latest wafers.

Improved operability and high throughput
• Setting conditions, such as sampling and inspection patterns, and checking the operating status and content of errors can easily be done with the large LCD panel
• Comprehensive file management functions for carriers and samples are useful for automating inspections
• Exceptionally fast elevator, and the loading and unloading of wafers with complete precision by the multi-arm system all contribute to an efficient wafer transfer and exchange

Dimensional diagram (Unit: mm)
### Specifications

<table>
<thead>
<tr>
<th></th>
<th>ECLIPSE L300N</th>
<th>ECLIPSE L200N</th>
<th>ECLIPSE L300ND</th>
<th>ECLIPSE L200ND</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Illumination type</strong></td>
<td>Episcopic</td>
<td>Episcopic</td>
<td>Episcopic/Diascopic</td>
<td>Episcopic/Diascopic</td>
</tr>
<tr>
<td><strong>Main body</strong></td>
<td>Power sources for motorized control built in</td>
<td>Motorized control for nosepiece. Light intensity control. Aperture diaphragm control</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Nosepiece</strong></td>
<td>Motorized universal sextuple nosepiece</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Centering Function</strong></td>
<td>Yes</td>
<td>—</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td><strong>EPI/DIA changeover</strong></td>
<td>—</td>
<td>—</td>
<td>Yes</td>
<td>—</td>
</tr>
<tr>
<td><strong>Focusing mechanism</strong></td>
<td>Cross travel 29 mm</td>
<td>Coarse 12.7 mm per rotation (torque adjustable, refocusing mechanism provided)</td>
<td>Fine 0.1 mm per rotation (in 1 µm increments)</td>
<td></td>
</tr>
<tr>
<td><strong>Episcopic illuminator</strong></td>
<td>12V-50W halogen lamp light source built in, LV-LL LED Lamphouse. Motorized aperture diaphragm (centerable), Fixed field diaphragm (with focus target). Pinhole slider (optional), Four e25 mm filters (NCB11, ND16, ND4), Polarizer and Analyzer can be mounted. Observation methods: Brightfield, Darkfield, Simple polarizing, DIC, Epi-fluorescence* (*L300N/L300ND/L200ND only)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diascopic illuminator</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Interface</strong></td>
<td>USB x 1, RS232C (for Intensilight) x 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eyepeace tubes</strong></td>
<td>L2-TT2A Ultra-widefield erect-image tilting trinocular eyepeace tube (tilt angle: 0-30 °) FOV: 22/25; Beamsplit ratio 100.0/20.80</td>
<td>L2-S6A 8 x 8 stage 14 x 12 stage</td>
<td>354 x 302 mm 205 x 205 mm</td>
<td>354 x 302 mm 205 x 205 mm</td>
</tr>
<tr>
<td><strong>Eyepieces</strong></td>
<td>CFI eyepiece lens series</td>
<td>CFI6o-2/CFI6o system</td>
<td>CFI60-2/CFI60 system</td>
<td>CFI6o-2/CFI6o system</td>
</tr>
<tr>
<td><strong>Objective lenses</strong></td>
<td>CFI60-2/CFI60 system</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Stages</strong></td>
<td>14 x 12 stage</td>
<td>L2-S6A 8 x 8 stage 14 x 12 stage</td>
<td>354 x 268 mm 150 x 150 mm</td>
<td>354 x 268 mm 150 x 150 mm</td>
</tr>
<tr>
<td><strong>Stroke</strong></td>
<td>354 x 302 mm 205 x 205 mm</td>
<td>354 x 302 mm 205 x 205 mm</td>
<td>354 x 268 mm 150 x 150 mm</td>
<td>354 x 268 mm 150 x 150 mm</td>
</tr>
<tr>
<td><strong>Disasopic observation range</strong></td>
<td>14 x 12 stage</td>
<td>354 x 268 mm</td>
<td>205 x 205 mm</td>
<td>354 x 268 mm</td>
</tr>
<tr>
<td><strong>Antistatic mechanism</strong></td>
<td>Coarse/Fine-movement changeover possible Fixed-position X-Y fine-movement controls</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Weight (approx.)</strong></td>
<td>Body only 40 kg 30 kg 40 kg 30 kg</td>
<td>With L2-S6A 8 x 8 stage and L2-TT2A eyepeace tube 45 kg 45 kg 45 kg 45 kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Power consumption</strong></td>
<td>1.2 A/90 W</td>
<td></td>
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</tr>
</tbody>
</table>

Specifications and equipment are subject to change without any notice or obligation on the part of the manufacturer. October 2018 ©2010-2018 NIKON CORPORATION

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*Products: Hardware and its technical information (including software)

**WARNING**

TO ENSURE CORRECT USAGE, READ THE CORRESPONDING MANUALS CAREFULLY BEFORE USING THE EQUIPMENT.