**Wafer-Mapping Fiber Unit HPF-T030**

Reliable mapping of 300mm wafers in FOUPs (front-opening unified pods)

**Tight beam with aperture angle of ±1.5° max.**
Reliable detection, even when mapping 300mm wafers at 10mm intervals, thanks to a precise aperture angle (±1.5° max.) that keeps the influence of light wraparound to a minimum.

**Mechanical axis alignment at the factory**
Aligning the light axis of a narrow beam is generally difficult and time-consuming. But because the HPF-T030 is shipped after mechanical axis alignment to −0.8°/+0.8° max., the adjustment time is greatly reduced.

**For use with the HPF-T030 mapping fiber unit**
The HPX-AG’s percent tuning function is recommended because it can reduce operator setting variation.

**Actual mapped wafer waveform**

<table>
<thead>
<tr>
<th>Distance moved (mm)</th>
<th>0</th>
<th>10</th>
<th>15</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incoming light level (%)</td>
<td>160</td>
<td>140</td>
<td>120</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: Reading is 100% with no wafer present.

**Percent tuning procedure**

For ex., 100% with no wafer present.

- **Preset value**
- **Incoming light level**

At this time the preset value is still the default value.

**Percent tuning is executed at 100% with no wafer.**

- **The setting is 50% (1500) of the current incoming light level.**

**Different time, different person same setting!**

**Precautions for adjustment**

Since surges in incoming light level can be caused by the influence of surface reflection from wafers during mapping, run % tuning with no wafer present.

**Installation method**
Install the fiber units so that the emitter and receiver are aligned on the same plane.

**Selection guide**

<table>
<thead>
<tr>
<th>Family</th>
<th>Appearance</th>
<th>When used with the HPX-AG Scanning distance (mm)</th>
<th>Features</th>
<th>Bend radius</th>
<th>Catalog listing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mapping fiber unit</td>
<td></td>
<td>HP 500</td>
<td>Narrow beam, -1.5° to +1.5° max. Cut to length.</td>
<td>R5</td>
<td>HPF-T030</td>
</tr>
<tr>
<td></td>
<td></td>
<td>rL 500</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>SF 450</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ft 250</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

*Note: The scanning distance setting may remain from shipping inspection, and so it may be less than the actual range capability.*

*Note: Response time: 5ms (High Power), 1ms (Normal), 500μs (Semi-Fast), 250μs (High Speed)*
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