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Santa Clara, CA 95054
Phone: (408) 919-0094
Fax: (408) 919-0097
Email: skw@testwafer.com
http://www.testwafer.com

SKW 5-2
Wafer Specifications

DATE: April 21, 2000

Cross Sectional View

SKW5-2 Mask Floor Plan
### Oxide Deposition

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>NOMINAL</th>
<th>TOLERANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PETEOS Thickness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot-to-Lot</td>
<td>6,000 Å</td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Lot (Wafer-to-Wafer)</td>
<td></td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Wafer</td>
<td></td>
<td>+/- 3 %</td>
</tr>
<tr>
<td>Within-Die</td>
<td></td>
<td>+/- 3 %</td>
</tr>
</tbody>
</table>

### Ti Deposition

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>NOMINAL</th>
<th>TOLERANCE</th>
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</thead>
<tbody>
<tr>
<td><strong>Ti PVD Film Thickness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot-to-Lot</td>
<td>250 Å</td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Lot (Wafer-to-Wafer)</td>
<td></td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Wafer</td>
<td></td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Die</td>
<td></td>
<td>+/- 5 %</td>
</tr>
</tbody>
</table>

### TiN Deposition

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>NOMINAL</th>
<th>TOLERANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TiN PVD Film Thickness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot-to-Lot</td>
<td>250 Å</td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Lot (Wafer-to-Wafer)</td>
<td></td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Within-Wafer</td>
<td></td>
<td>+/- 5 %</td>
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<tr>
<td>Within-Die</td>
<td></td>
<td>+/- 5 %</td>
</tr>
</tbody>
</table>

### CVD W Film Deposition

<table>
<thead>
<tr>
<th>PARAMETER</th>
<th>NOMINAL</th>
<th>TOLERANCE</th>
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</thead>
<tbody>
<tr>
<td><strong>CVD W Film Thickness</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot-to-Lot</td>
<td>8000 Å</td>
<td>+/- 10 %</td>
</tr>
<tr>
<td>Within-Lot (Wafer-to-Wafer)</td>
<td></td>
<td>+/- 10 %</td>
</tr>
<tr>
<td>Within-Wafer</td>
<td></td>
<td>+/- 5 %</td>
</tr>
<tr>
<td>Parameter</td>
<td>Nominal</td>
<td>Tolerance</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>---------</td>
<td>-----------</td>
</tr>
<tr>
<td><strong>Center Die X Location</strong></td>
<td>-10.000 mm</td>
<td>+/- 100 μm</td>
</tr>
<tr>
<td><strong>Center Die Y Location</strong></td>
<td>-10.000 mm</td>
<td>+/- 100 μm</td>
</tr>
<tr>
<td><strong>Die Size: X</strong></td>
<td>20 mm</td>
<td>+/- 10 μm</td>
</tr>
<tr>
<td><strong>Die Size: Y</strong></td>
<td>20 mm</td>
<td>+/- 10 μm</td>
</tr>
<tr>
<td><strong>Vertical Die Spacing</strong></td>
<td>180 μm</td>
<td>+/- 10 %</td>
</tr>
<tr>
<td><strong>Horizontal Spacing</strong></td>
<td>360 μm</td>
<td>+/- 10 %</td>
</tr>
<tr>
<td><strong>LineWidth Variation (measured on 2 μm structures)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lot-to-Lot</td>
<td>2 μm</td>
<td>+/- 0.1 μm</td>
</tr>
<tr>
<td>Within-Lot (Wafer-to-Wafer)</td>
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<td>+/- 0.1 μm</td>
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<tr>
<td>Within-Wafer</td>
<td></td>
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<tr>
<td><strong>Within-Die</strong></td>
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**Patterning**

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<td>+/- 100 μm</td>
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<tr>
<td><strong>Center Die Y Location</strong></td>
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<tr>
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**LineWidth Variation (measured on 2 μm structures)**

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<td>Within-Die</td>
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**Within-Die** +/- 5 %