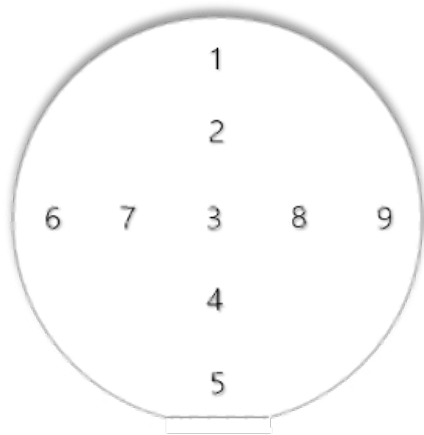


**NITRIDE**  
G L O B A L



**AT Series Templates**

# Wafer Map



Interferometer and XRD measurements

- Performed at 9 locations for 4"
- Performed at 5 locations for 2"



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## [AT100-SX]

### Sapphire Options

|                    |                       |
|--------------------|-----------------------|
| Wafer Diameter     | 4"                    |
| Orientation        | +0.2°                 |
| Backside Roughness | fine ground, polished |

### AIN

|                             |               |
|-----------------------------|---------------|
| Orientation<br>(major flat) | m-plane (AIN) |
|-----------------------------|---------------|

### Thickness (measured by interferometry)\*

|               |   |
|---------------|---|
| Avg           | 0.45 $\mu\text{m}$ $\pm$ 0.05 $\mu\text{m}$ |
| WIWNU (s/Avg) | <4%   |

### Crystal Quality (FWHM)\*

|                     |              |
|---------------------|--------------|
| [002] XRD Linewidth | < 100 arcsec |
| [102] XRD Linewidth | < 325 arcsec |

|              |                 |
|--------------|-----------------|
| Transmission | >80% (@ 280 nm) |
|--------------|-----------------|

|                 |      |
|-----------------|------|
| Exclusions Zone | 3 mm |
|-----------------|------|

### Surface Morphology

|                       |        |
|-----------------------|--------|
| Wyko Measurement (Ra) | < 3 nm |
|-----------------------|--------|

## [AT50-AX]

### Sapphire Options

|                    |             |
|--------------------|-------------|
| Wafer Diameter     | 2"          |
| Orientation        | +0.2°       |
| Backside Roughness | fine ground |

### AIN

|                             |               |
|-----------------------------|---------------|
| Orientation<br>(major flat) | m-plane (AIN) |
|-----------------------------|---------------|

### Thickness (measured by interferometry)\*

|               |   |
|---------------|---|
| Avg           | 0.45 $\mu\text{m}$ $\pm$ 0.05 $\mu\text{m}$ |
| WIWNU (s/Avg) | <2%   |

### Crystal Quality (FWHM)\*

|                     |              |
|---------------------|--------------|
| [002] XRD Linewidth | < 100 arcsec |
| [102] XRD Linewidth | < 340 arcsec |

|              |                 |
|--------------|-----------------|
| Transmission | >80% (@ 280 nm) |
|--------------|-----------------|

|                 |      |
|-----------------|------|
| Exclusions Zone | 3 mm |
|-----------------|------|

### Surface Morphology

|                       |        |
|-----------------------|--------|
| Wyko Measurement (Ra) | < 1 nm |
|-----------------------|--------|