



Fiducial Requirements for Phasur

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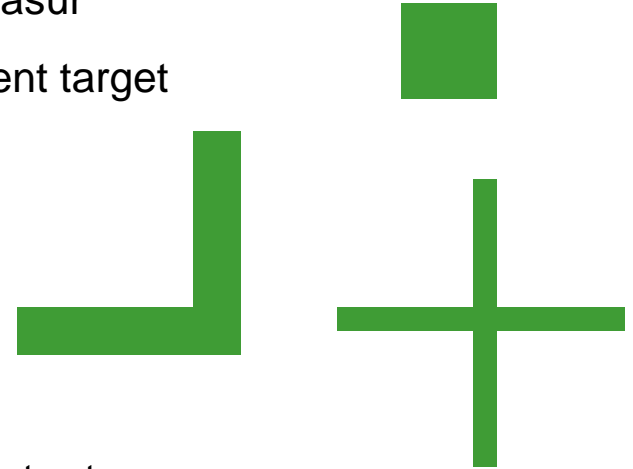
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RAPID



Fiducial mark requirement for Phasur on Teron 600

- KT developed new, very flexible alignment algorithm for Phasur
- Can accommodate cross, square box, or L-shaped alignment target
 - Requires only one corner
 - Minimum width 3 μm
 - Maximum width / length – unlimited
 - GUI developed to facilitate setup
 - Feature must be unique within 5 mm of alignment mark
 - Require $> 13\%$ reflectivity difference @193 nm for adequate contrast



- Alignment process utilizes three points on mask
 - Must form a right triangle
 - Orientation on mask not critical (corner)
 - Precise location data must be provided
 - Alignment performed across $\sim 28\mu\text{m}$ area to reduce LER impact
 - Templates can be stored and re-used easily
 - Scale and orthogonality errors are corrected

