

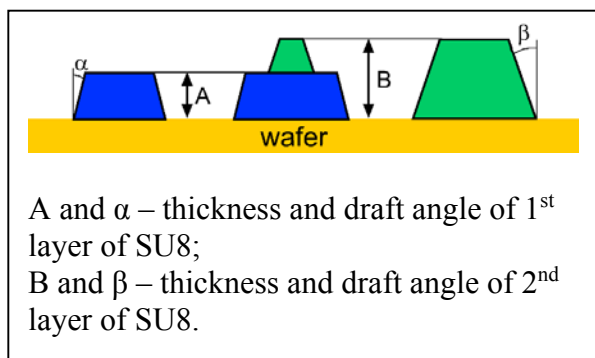
## PRODUCT DESCRIPTION

We use UV contact photolithography to fabricate micro-patterns on 5 inch silicon wafers using SU8 series negative photoresists. *We have technical capability for photolithographic microfabrication with other 365 nm sensitive photoresists. Please, contact us for consultation.*

We make micropatterns with up to three layers of SU8 of different thickness. The thickness is 0.5  $\mu\text{m}$  to  $\sim 1$  mm for the first layer. The incremental thicknesses for the 2<sup>nd</sup> and 3<sup>rd</sup> are  $\leq 150$   $\mu\text{m}$ . Thickness tolerance is normally  $\pm 10\%$  for  $< 150$   $\mu\text{m}$  thick layers and  $\pm 15\%$  for  $\geq 150$   $\mu\text{m}$  thick layers. The precision of alignment is  $\sim 5$   $\mu\text{m}$  for thin ( $< 50$   $\mu\text{m}$ ) layers of SU8. *Please, contact us if you need greater precision.*

We can normally make microstructures with features and spacing between features with up to 2:1 aspect ratios for 5 – 100  $\mu\text{m}$  and up to 3:1 for  $> 100$   $\mu\text{m}$  thick layers. *Please, contact us if you need features with greater aspect ratios.*

We make microstructures with draft angles from 3 to 9° for layer thicknesses  $\leq 150$   $\mu\text{m}$ . *Please, contact us, if you need draft angles  $> 9^\circ$ .*



## DESIGN RULES:

1. For optimal results, features should be at least 2 mm away from boundaries of the exposed area (84x84 mm for 4 inch masks and 89x89 mm for 5 inch masks).

*Note: If you design your mask in AutoCAD, please, make sure all polylines are closed to avoid conversion errors.*

2. For multilayer lithography, please, use our custom designed alignment patterns, which are available for download in DXF and EPS formats.

*Note: We recommend at least 4 alignment patterns on 4 sides of the photomasks. The alignment is further facilitated by a 5th alignment pattern near the center. (The samples have 5 patterns.)*

3. Please, use vertical and horizontal straight lines for wafer dicing (street lines) stretching across the entire mask and for cutting of PDMS molds into individual chips.

## Disclaimer:

All microfabrication is done on a best effort basis.