Photomasks and Photomask Blanks

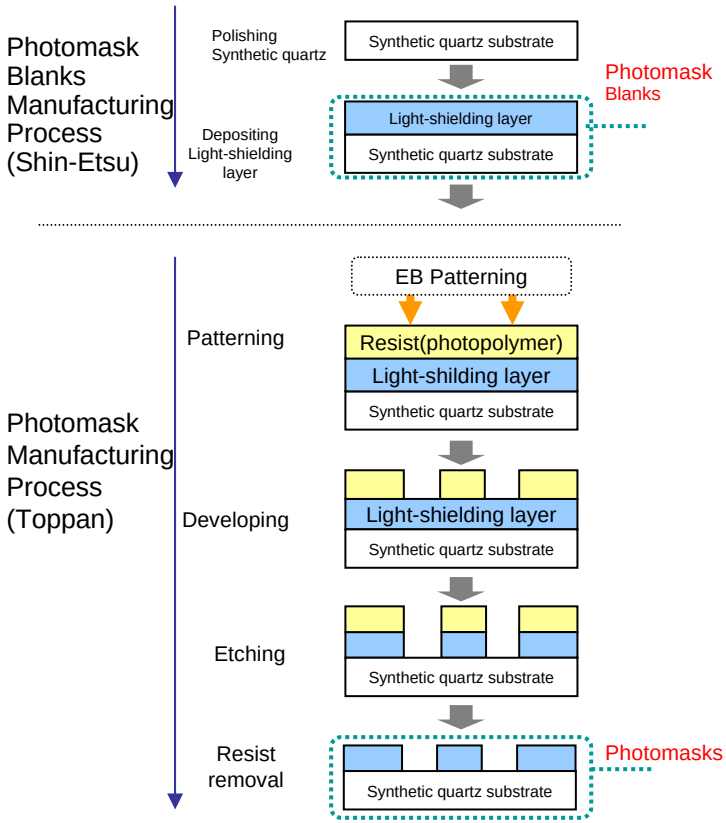
Photomasks Photomasks are original circuit patterns used for semiconductor manufacturing process. They contain the detailed template of circuit and device patterns. The patterns are formed by etching the light-shielding layer on a quartz substrate.

Photomask Blanks Photomask blanks are composed of a quartz substrate and a light-shielding layer.

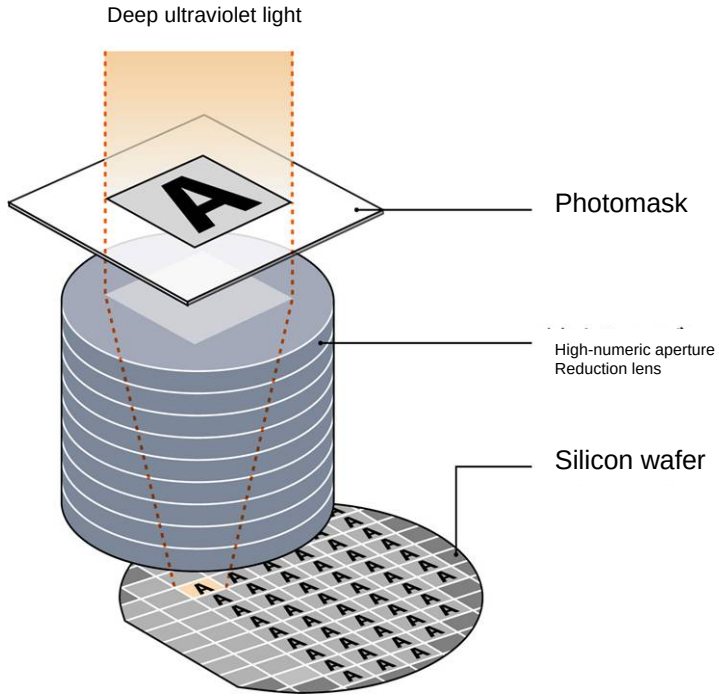
Photomasks

Photomask Blanks

Photomask Manufacturing Process



Semiconductor Manufacturing Process (Exposure process)



The circuit pattern design data on the photomask is optically transferred onto the surface of a silicon wafer. Deep ultraviolet light is passed through a photomask and high-numeric aperture reduction lens, projecting an image of the design of a circuit or device on the wafer. By repeating this process, complex device structures are created. Pieces are sliced away and these will become LSI chips.