EUV Lithography for HVM

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Recent developments in EUV exposure source technology have provided demonstrated power levels in line with the technology source power roadmap. The exposure source remains the largest contributor to downtime and availability, with the increase in source power requiring consideration of such effects as exposure dose control, out-of-band radiation, etc. There has been significant overall improvement in EUVL infrastructure to better position the technology for HVM insertion; however, improvements in reticle and pellicle infrastructure lag behind those of the scanner and exposure source. Wafer print test data with and without a pellicle demonstrates defect mitigation within the scanner environment, and predictable yield requires continued emphasis on reticles and pellicles including improvements in techniques to detect and mitigate reticle blank and pattern defects.

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