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Jiang et al.(10) **Pub. No.: US 2023/0230807 A1**(43) **Pub. Date: Jul. 20, 2023**(54) **CONTROL OF MASK CD****H01L 21/3213** (2006.01)**H01L 21/66** (2006.01)(71) Applicant: **Lam Research Corporation**, Fremont, CA (US)(52) **U.S. Cl.**CPC .. **H01J 37/32183** (2013.01); **H01J 37/32146** (2013.01); **H01L 21/31116** (2013.01); **H01L 21/31144** (2013.01); **H01L 21/32137** (2013.01); **H01L 21/32139** (2013.01); **H01L 22/20** (2013.01); **H01J 2237/334** (2013.01); **H01J 2237/24578** (2013.01)(72) Inventors: **Beibei Jiang**, Alpharatte, GA (US); **Taner Ozel**, Fremont, CA (US); **Chen Chen**, Hayward, CA (US); **Shuang Pi**, Fremont, CA (US); **Daksh Agarwal**, Sunnyvale, CA (US); **Qing Xu**, Fremont, CA (US); **Merrett Wong**, San Carlos, CA (US); **Amit Mukhopadhyay**, Fremont, CA (US)

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A method for controlling a critical dimension of a mask layer is described. The method includes receiving a first primary parameter level, a second primary parameter level, a first secondary parameter level, a second secondary parameter level, and a third secondary parameter level. The method also includes generating a primary signal having the first primary parameter level, and transitioning the primary signal from the first primary parameter level to the second primary parameter level. The method further includes generating a secondary radio frequency (RF) signal having the first secondary parameter level, and transitioning the secondary RF signal from the first secondary parameter level to the second secondary parameter level. The method includes transitioning the secondary RF signal from the second secondary parameter level to the third secondary parameter level.

