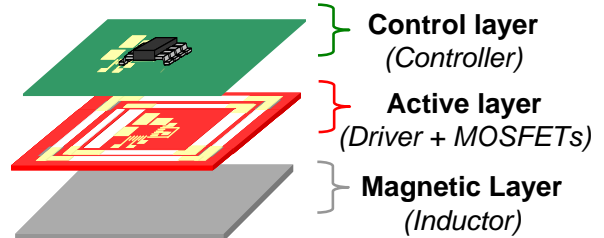




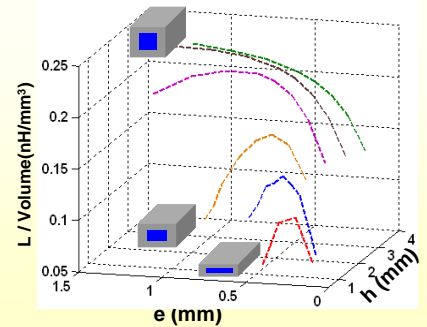
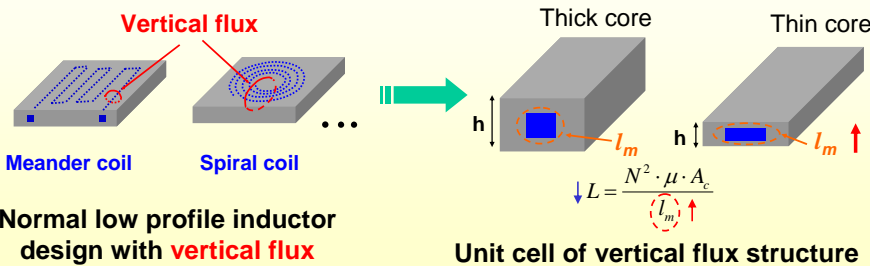
Big and Fast increasing Market!

3D Integrated POL with Magnetic Substrate

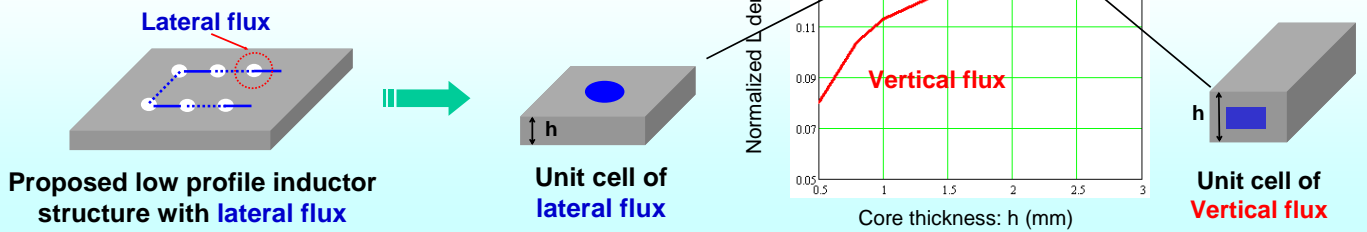


Benefits: Footprint saving and fully utilize space.
Low profile inductor design is a challenge!

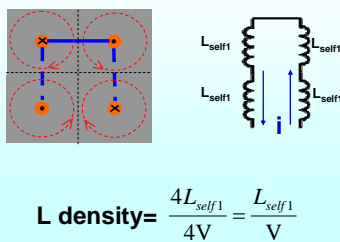
Vertical flux with thin core structure has lower L density



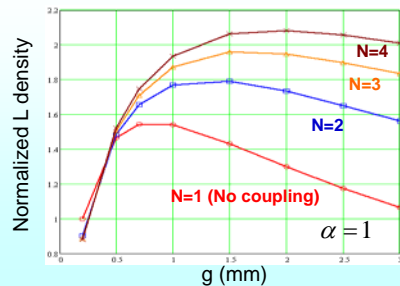
Lateral flux structure can achieve the maximum L density with any core thickness



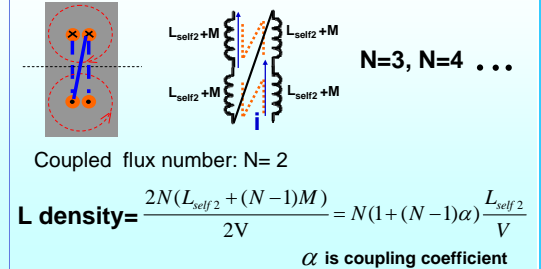
Possible Lateral flux structure 1 (Non-coupled flux)



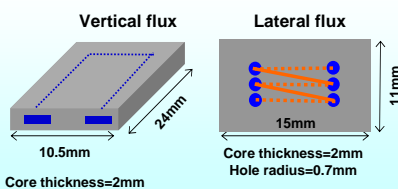
Coupling can increase L density



Possible Lateral flux structure 2 (Coupled flux)



$I_{DC(max)}=15A, L_{15A}=50nH$



Low Profile LTCC Inductor Comparison

