

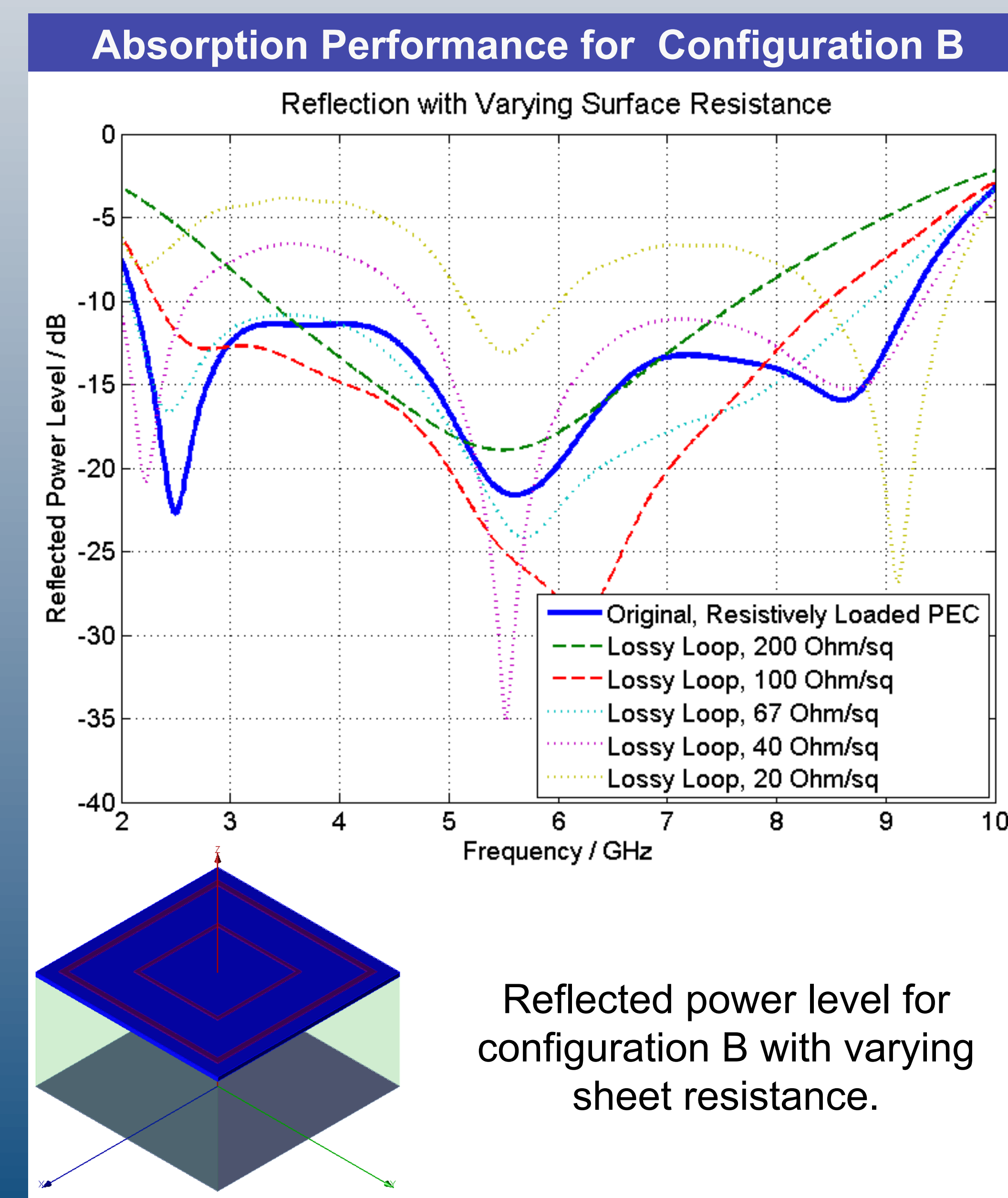
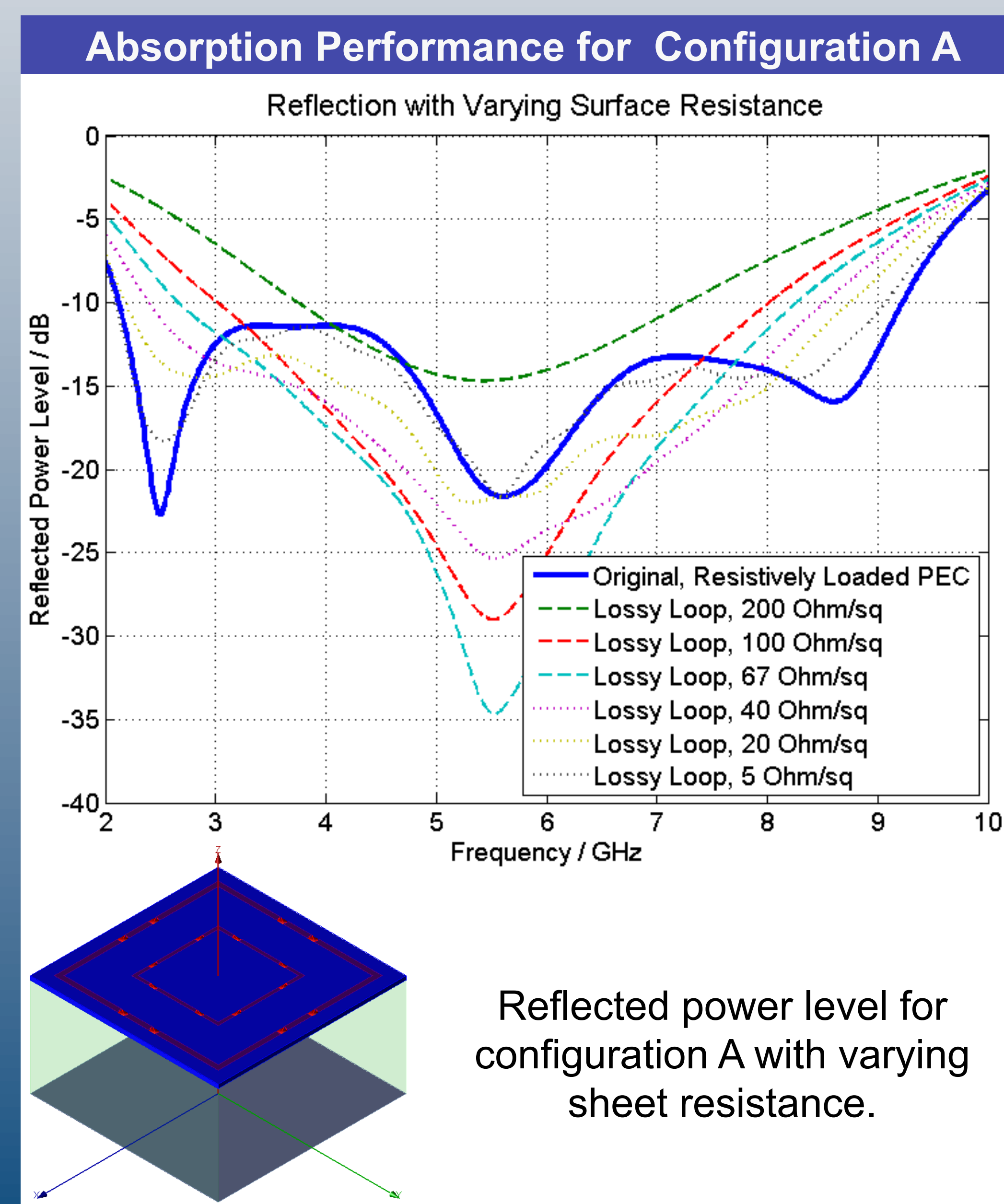
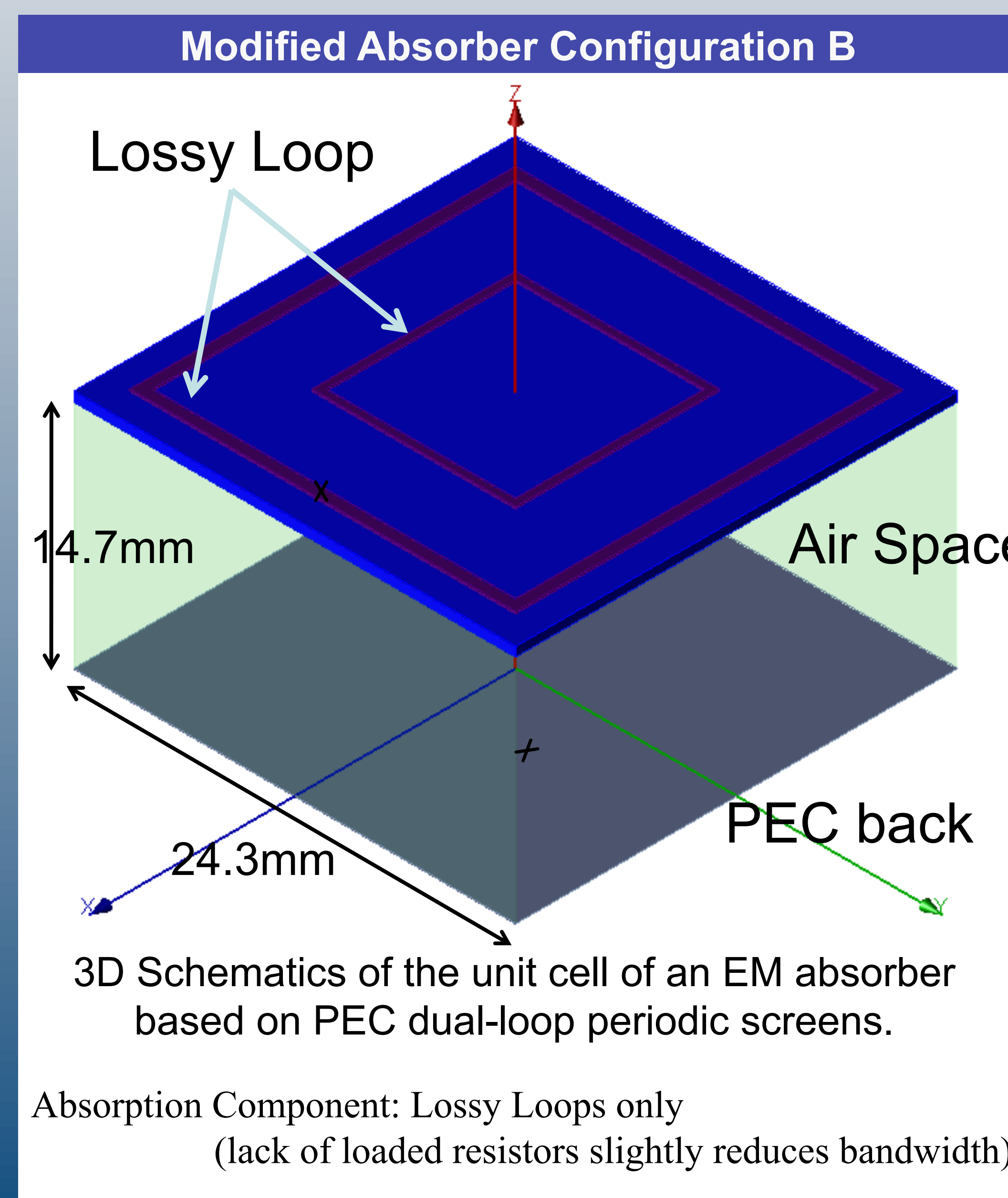
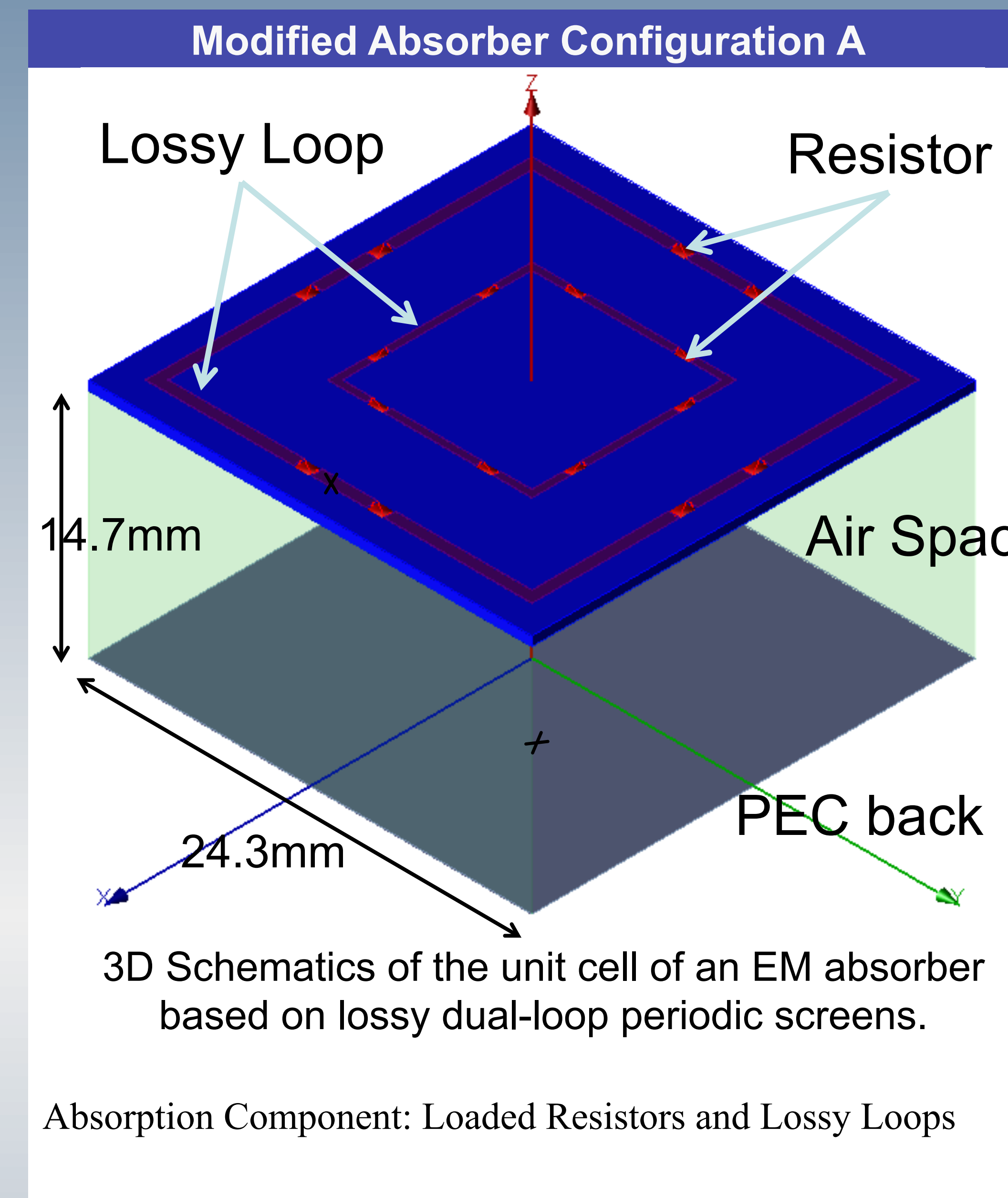
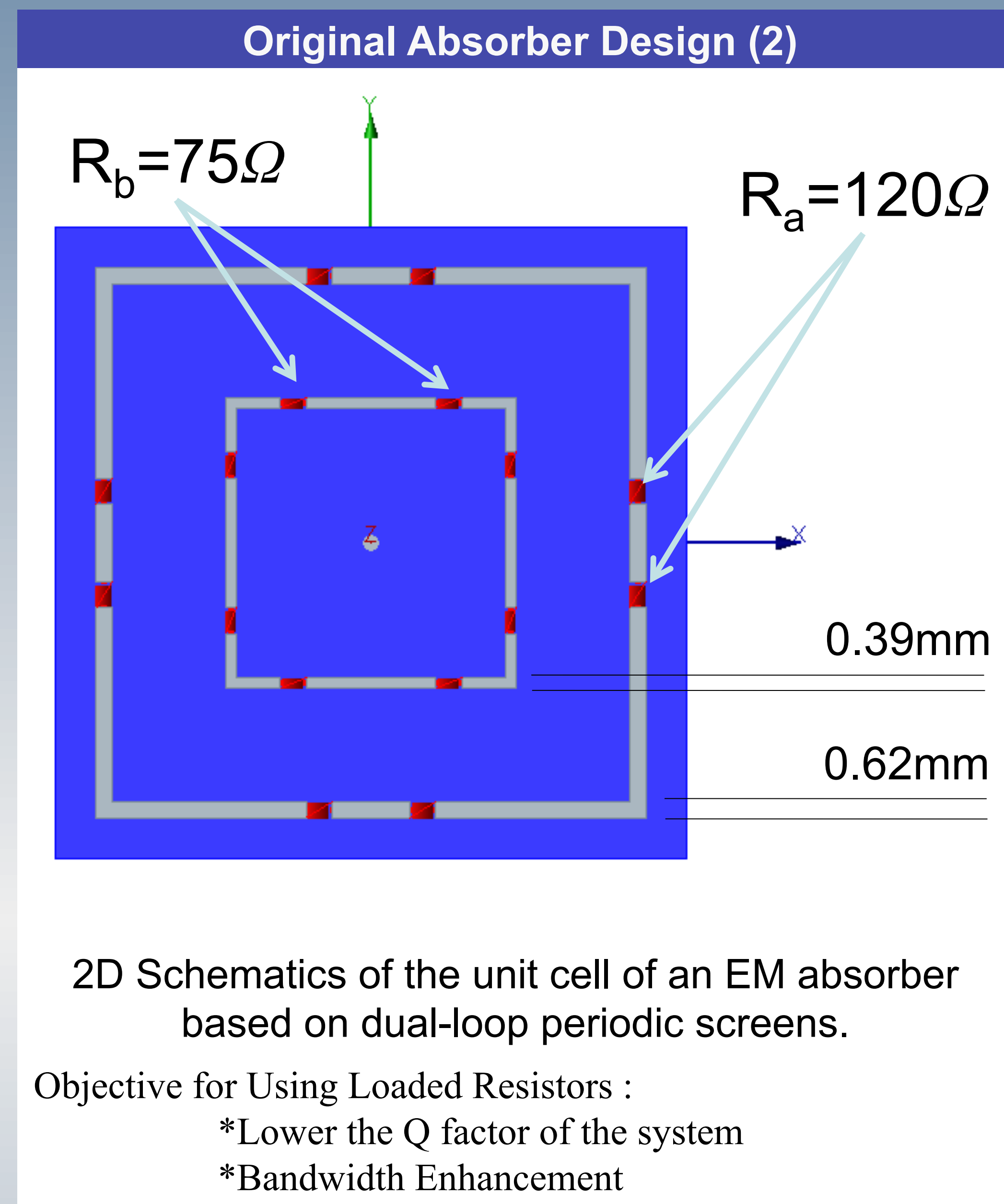
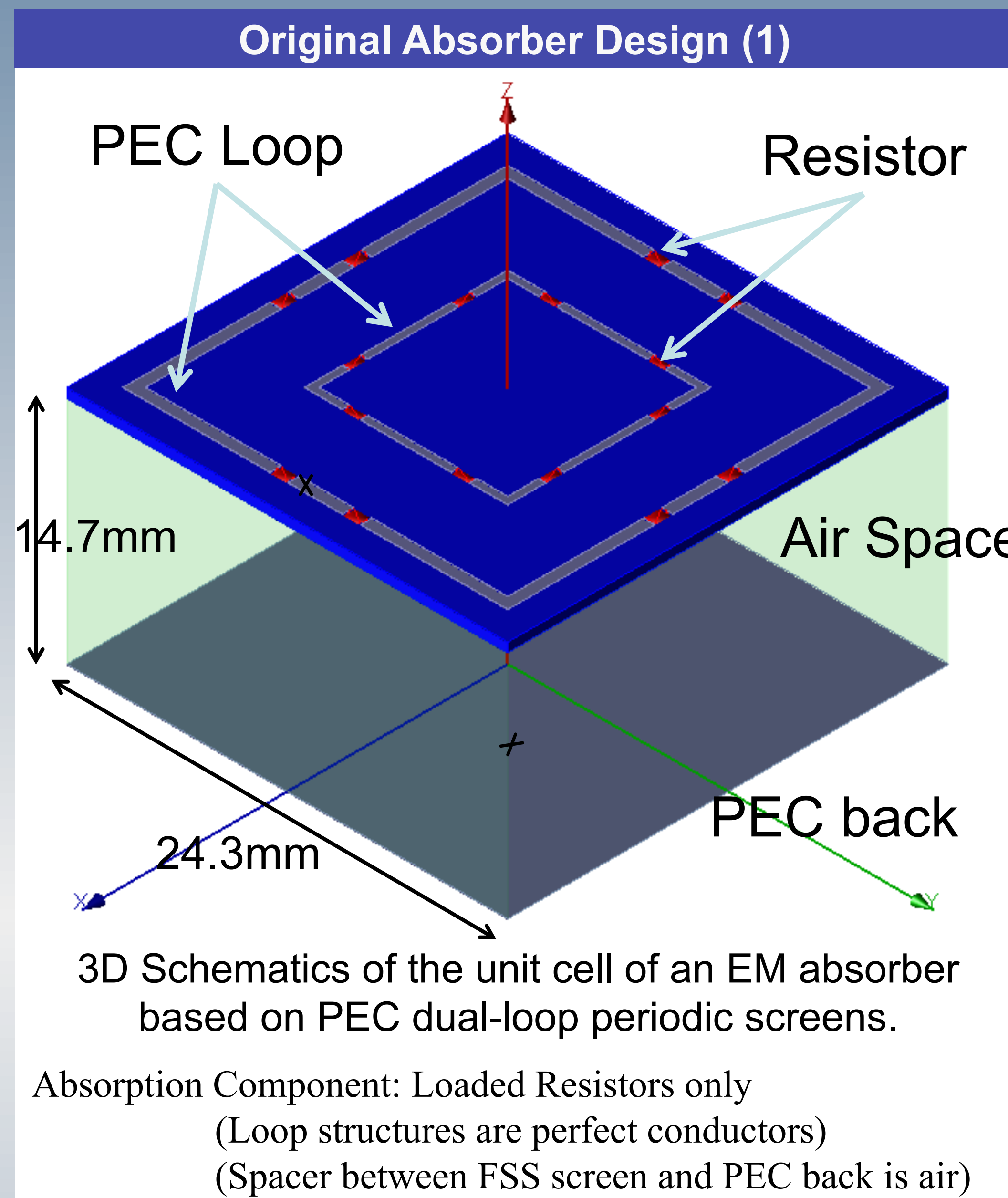
Performance Enhancement of A Dual-Loop FSS-based Absorber

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- Conclusions**
- Two different modifications of an FSS-based EM absorber comprising of resistively loaded lossy dual-loops and complete, unsegmented lossy dual-loops have been studied and their performances demonstrated, respectively.
 - Varying the sheet resistance of both modified configurations can achieve enhanced absorption at frequencies where a high absorption level is desired with little compromise of its bandwidth performance, which provides an additional degree of freedom besides changing the physical sizes of different components.
 - Varying the sheet resistance of the complete, unsegmented lossy dual-loops can achieve enhanced absorption at frequencies where a high absorption level is desired with little compromise of its bandwidth performance without the need to introduce complicated segmentation and lumped elements of appropriately chosen impedances.
 - The geometries investigated can be appropriately scaled to provide similar performance across other frequency bands.

Acknowledgement

This work was carried out based on the equivalent circuit analysis research [1] in University of Electronic Science and Technology of China, Chengdu, China and Nanyang Technological University, Singapore.

Reference

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