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Title:Wideband modeling of conductor loss in general large-scale problems
Authors:Makinen, Riku M. (1); Junkin, Gary (2)
Author affiliation:(1) Department of Electronics, Tampere University of Technology, Tampere 33720, Finland; (2) Department of Telecommunications and Systems Engineering, Universidat Autònoma de Barcelona, 08193 Barcelona, Spain
Corresponding author:Makinen, R.M.(riku.makinen@tut.fi)
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Abstract:Wideband modeling of conductor loss is of critical importance in millimeter-wave applications. This letter presents a conformal three-dimensional (3-D) surface impedance model based on fully automated mesh generation suitable for large-scale problems with arbitrary problem geometry. The method is described in the context of a parallelized time-domain finite-difference algorithm. The approach is validated using rectangular, cylindrical, and spherical cavity resonators against analytical reference data. The wideband performance of the method is validated at 1-MHz to 1-THz frequency band. © 2012 IEEE.
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