

## Periodic structures for original design of voluminous and planar microwave filters

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*B. Lenoir, D. Baillargeat, S. Verdeyme, P. Guillon, C. Zanchi and J. Puech. "Periodic structures for original design of voluminous and planar microwave filters." 2001 MTT-S International Microwave Symposium Digest 01.3 (2001 Vol. III [MWSYM]): 1479-1482 vol.3.*

The main objective of this paper is to demonstrate that a periodic structure can be used to design filters at millimeter frequency band. Theoretical analyses are performed applying the Finite Element Method (FEM) to design a volumic millimeter-wave filter at 35 GHz and a planar microwave filter at 6 GHz. The devices are built and tested at the IRCOM. Theoretical results are compared with success to experimental ones.

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