

Turkish Journal of Electrical Engineering & Computer Sciences

Turkish Journal

of

Two dimensional EBG structures for multiband noise mitigation

Electrical Engineering &
Computer Sciences

Antonio Ciccomancini SCOGNA¹, Antonio ORLANDI²

¹CST of America, 492 Old Connecticut path, suite505, Framingham, MA, 01701, USA
e-mail: antonio.ciccomancini@cst.com

²UAq EMC Lab, University of L'Aquila, 67100, Poggio di Roio, L'Aquila-ITALY
e-mail: orlandi@ing.univaq.it

 [Keywords](#)
 [Authors](#)



elektrik@tubitak.gov.tr

[Scientific Journals Home Page](#)

Abstract: In this paper a two dimensional (2D) electromagnetic Bandgap (EBG) structure is proposed for multi band noise mitigation in PWR/GND plane pairs. Excellent noise suppression (-60 dB) is achieved in multiple bands within the range 0--8 GHz with a low start frequency. Because of the 2D EBG, no additional metal layer is required. Signal Integrity analysis is also studied by modelling a microstrip to stripline transition (both single ended and differential) and by evaluating insertion loss, TDR as well as eye diagram.

Turk. J. Elec. Eng. & Comp. Sci., **17**, (2009), 279-288.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Elec. Eng. & Comp. Sci..vol.17,iss.3.](#)