

Title: Wideband antenna with reconfigurable band notched using EBG structure

Author/Authors: H. A. Majid, Mohamad Kamal A. Rahim, Mohamad Rijal Hamid, Mohd. Fairus Mohd. Yusoff, Noor Asniza Murad, Noor Asmawati Samsuri, Osman Ayop, Raimi Dewan

Abstract: A wideband antenna with band notch function using electromagnetic bandgap (EBG) structure is proposed. The antenna is capable of reconfiguring up to three band notch operation. Three EBGs are aligned underneath the feed line of the wideband antenna. The transmission lines over EBGs unit cells perform as a band stop filter. A switch is placed on each of the EBG structure, which enables the reconfigurable band stop operation. The simulated and measured reflection coefficients, together with the radiation patterns, are shown to demonstrate the performance of the antenna.