

ELECTRONICS

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Premium Edit

Recent technological advances, such as scaling down of microwave devices, have necessitated the Miniaturization of microwave filters—~~are important~~ in the electronic~~electronic~~ industry. ~~Several research efforts have been directed toward achieving such miniaturization. For example, ceramic-laminated filters, particularly comb-line filters, have been developed for use in cell phones. For mobile telephones, ceramics laminated filters have been widely used and in particular comb-line filters have extensively made practical use.~~

In this study, ~~we designed a comb-line filters in which~~where both sides of the dielectric substrate are utilized ~~are designed.~~ The ~~C~~comb-line filter consists of two ~~quarter~~quarter-wavelength resonators. Strong coupling between the two resonators ~~is obtained~~ was induced by installing a patch conductor, i.e., a coupling capacitor, on the dielectric substrate ~~overpositioned above the~~ resonators. ~~We installed the~~Method of installing coupling capacitor in the filter by ~~inserting~~forming slots into the ground plane ~~is discussed.~~ One of the possible ways to form slots in the ground plane is through the use of a defected ground structure (DGS)~~As method of inserting slots into a ground plane, a defected ground structure (DGS) has attracting much attention.~~

Comment [A1]: My changes here are intended to create better logical transition from the previous sentence. Please check if appropriate.

Comment [A2]: Your motivation for designing the comb-line filter in view of the need for miniaturization is not clear. Please consider explaining this for better understanding.

Comment [A3]: I've used the definite article here on the assumption that you're specifically referring to the comb-line filter proposed here. Please replace "The" with "A" if this is just a general mention.

Comment [A4]: Once again, I understood that you were referring to how the coupling capacitor was installed in *this study*. If this is not the intended meaning, then please revise this sentence suitably according to the intended meaning.