Abstracts

A first practical model of very small and low insertion loss laminated duplexer using LTCC suitable for W-CDMA portable telephones

T. Ishizaki, H. Miyake, T. Yamada, H. Kagata, H. Kushitani and K. Ogawa. "A first practical model of very small and low insertion loss laminated duplexer using LTCC suitable for W-CDMA portable telephones." 2000 MTT-S International Microwave Symposium Digest 00.1 (2000 Vol. I [MWSYM]): 187-190.

A laminated duplexer using Low Temperature Co-fired Ceramics (LTCC) has been developed for the first time practically. The technologies of reducing the insertion loss are explained. They include the new ceramic-lamination process and the filter circuit design. The inner electrodes for the resonators are thicken by the state-of-art ceramic lamination process. The design of a laminated band elimination filter is also studied. As the result, its size is reduced by 30% comparing to a conventional mono block duplexer, while the performances are almost the same. It is very suitable for the next generation W-CDMA portable telephones.

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