

Compact Transmitting Dielectric Resonator Filter Using Capacitive Loaded Dual Mode Method for PCS Microcellular Base Station

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This paper describes a compact transmitting bandpass filter using dielectric resonators for PCS microcellular base station. We propose new size reduced capacitive loaded TM dual mode resonators that consist of monoblock high K ceramics. The electrical performance of the filter constructed by these resonators is designed by using dual mode dielectric transmission line method. A six pole bandpass filter at 1.9GHz band is manufactured. It has center frequency of 1.87GHz, low insertion loss of 1. 1dB and small dimensions of 20x20x60 mm.

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