Abstracts

High Performance Direct Coupled Bandpass Filters on Coplanar Waveguide

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This paper describes the design and performance of shunt inductively coupled bandpass filters implemented on open coplanar waveguide. This new structure exhibits low radiation loss due to the removal of the capacitively coupled gaps encountered in end or edge coupled filters. Unloaded Qs greater than 540 have been achieved in unshielded single section resonators at 4 GHz on very thin substrates. These high Qs enable the design of filters with low insertion loss and good stopband rejection. Applications include low insertion loss, high Q printed filters where no screening is required, low noise oscillators and superconducting filters.

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