

Abstract: A new technique for designing digitally tuned frequency selective analogue integrated circuits is proposed. The technique incorporates the R-2R ladder as a circuit element into the circuit design to provide precise frequency characteristics that can be tuned over a wide range. Two filters are described to illustrate the proposed approach. The proposed filters are used to implement the channel-select filter of a multi-standard direct conversion wireless receiver and the bandpass filter of a low IF frequency-hopping receiver.