In this paper, a matching circuit for RF diplexer for mobile communication is proposed. Most wanted bands in wireless technologies like GSM and DCS is used. Both bands are designed by using stepped impedance resonators with single order and matching between this two are implemented by Y- junction method. Cutoff frequency for GSM and DCS band are 925 MHz and 1795 MHz. Microstrip Technology is proposed because it provides a better insertion loss, better return loss and good isolation between the passbands. The isolation between two operating bands is better than -50 dB. The overall insertion loss obtained in diplexer is -0. 4 dB. The overall return loss is less than -20 dB.


Design of RF Diplexer for Mobile Communication


**Index Terms**

Computer Science Wireless Communications

**Keywords**

Diplexer Mobile Communication Stepped Impedance Resonator (SIR).