

## **Dual-frequency printed dipole loaded with split ring resonators**

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### **Abstract-**

**A novel approach to design dual-frequency printed dipoles is presented. This approach is based on an antipodal printed dipole loaded with split ring resonators (SRRs). This technique allows the choice of any pair of working frequencies. Two prototypes, the first one working at 1.32 and 2.83 GHz and the second one working at 1.2 and 2.05 GHz, have been manufactured and measured. The experimental results show reasonable values for the efficiency at both working frequencies. Moreover, the obtained radiation pattern is dipolar at both frequencies with low cross polarization levels.**

**Index Terms-** Metamaterials, microstrip antennas, multifrequency antennas, split ring resonators (SRRs).

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