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## 无线通讯用硅基微小Spiral天线的设计和制作

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摘 要：

微小双波段天线通过采用微电子加工工艺在高电阻率硅片上被设计和制备，测试得到天线基本为全向辐射，增益为2.8dBi，辐射系数分别为25dB 和23dB，此天线的设计制造利于IC集成。文章还重点对天线的制作工艺进行了详细地介绍，对于以后此

关键词：微小; spiral天线; 硅基底; IC工艺

### Design and Fabrication of Miniature SpiralAntenna Based on Silicon Substrate Using Wireless

**Author's Name:**

**Institution:**

**Abstract:**

In this paper, small antenna was designed and fabricated on high-resistivity silicon(HR-Si) by micro-electronics process. The results omnidirectional radiationpattern. The gain of antenna is 2.8dB, and the resonance frequency approximately is 7.6Ghz and 20.2GHz, respectively, and 23dB. This fabrication can be compatible with antenna integration and CMOS process. The fabrication process of the antenna has been reaseach.

**Keywords:** miniature, spiral antenna; silicon substrate; IC process

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