



易于集成的高增益双环形印刷天线

孙晓萌,杨雪霞,王华红,周建永

(上海大学 特种光纤与光接入网省部共建重点实验室, 上海 200072)

High Gain Printed Dual Loop Antenna for Easy Integration

SUN Xiao-meng, YANG Xue-xia, WANG Hua-hong, ZHOU Jian-yong

(Key Laboratory of Specialty Fiber Optics and Optical Access Network, Shanghai University, Shanghai 200072, China)

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摘要

提出一种高增益、共面带状线(CPS)馈电的双环形印刷天线.该天线具有10.8 dB的高增益,在一定的功率密度下可以接收到更多的功率.交叉极化低于-38 dB,同时波瓣宽度大于70°,从而避免了严格的主波束校准问题.该天线适用于迅速发展的无线通信系统.为了便于测试,为天线设计了CPS-微带线巴伦.实测与仿真结果比较吻合.

关键词: [高增益](#); [交叉极化](#); [宽波瓣](#); [共面带状线\(CPS\)](#); [巴伦](#)

Abstract:

A dual loop printed antenna fed by coplanar strip line (CPS) with high gain is proposed. This antenna has a high gain of 10.8 dB, capable of receiving more power at certain power density. It has a low cross polarization level that is less than -38 dB, and a broad beam width of more than 70° half power beamwidth (HPBW) which does not require strict alignment of the main beam. This antenna can be used in communication systems. Balun from the CPS to a microstrip line is designed. The measured results are in agreement with simulations.

Keywords: [high gain](#); [cross polarization level \(CPS\)](#); [wide broad beam](#); [coplanar strip line \(CPS\)](#); [Balun](#)

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通讯作者 杨雪霞(1969~),女,教授,博士.研究方向为微带天线与微波电路. Email: xxyang@staff.shu.edu.cn

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