# 平面型雙極天線之研製


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**摘 要**

在這篇論文中我們研究製作了寬頻的平面型雙極天線。由於需要作微帶線與共面帶線的結構轉換，我們研究了半波長反相轉接器和MARCHAND轉接器的原理，且製作出在涵蓋所需頻寬中插入損失小於3DB的背對背對接的微帶線到共面帶線轉接器。結合了轉接器的平面雙極天線可以達到在電壓駐波比（VSWR）小於2有28%~45%的頻寬，而且指向性有5DBI和FRONT-TO-BACK RATIO有15DB。 這天線使用了介電係數為4.4的FR4的基板並可利用一般的PCB製作設備製作而成。藉由與其他主、被動元件的整合，這天線可以廣泛的應用在無線通訊系統、相列天線陣列、主動天線陣列上。



關鍵詞 : 平面型雙極天線，轉換結構，無線通訊系統


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