

應用於手機天線之蜿蜒式微帶天線設計

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摘要

本論文探討兩個應用於現代行動通訊的平面天線：小型雙頻平面天線與雙寬頻印刷單極天線。小型雙頻平面天線由一喇叭形單極天線加上套管所構成，此天線為有限接地之共平面饋入架構，而且能達到雙頻並包含DCS-1900/PCS/PHS、WCDMA/IMT-2000和WLAN頻帶。寬頻印刷單極天線由矩形單極天線和能使頻寬變寬的梯形背平面導體構成，此天線應用於無線區域網路(WLAN)和全球互通微波存取系統(WiMAX)，並以探討天線各種結構參數下之反射係數、輻射場型及電場分佈，與模擬和實際量測作比較，其結果證實了天線的寬頻和全向性。

關鍵詞：小型天線、雙頻天線、單極天線、DCS-1900、IMT-2000、PCS、PHS、WCDMA、WLAN、WiMAX

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