

## **Multi-band printed internal monopole antenna for mobile handset applications**

Cheng, Po-Chun; Sim, Chow-Yen-Desmond; Lee, Ching-Her

### **Abstract**

An internal multi-band CPW-fed monopole antenna designed for mobile handset applications is proposed. By embedding an open-ended slot and two parallel slits in the ground plane and radiating element, respectively, a triple-band operation measured along VSWR 3 : 1 that is able to cover the wireless applications such as GSM, DCS, PCS, UMTS, WLAN, and WiMAX can be achieved for this antenna. Furthermore, good radiation patterns and stable gain variation are measured over these bands of interest.