

Antenna & Propagation Research Lab-18



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Department of Electrical Engineering,

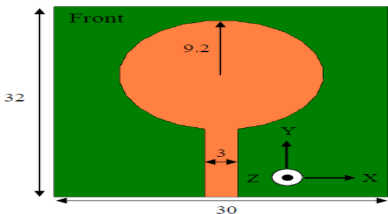
Antenna & Propagation Research Lab
(Electromagnetic Waves Program Laboratory)

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Background : The antenna and Propagation Research Laboratory (APRL) was found in 2008 whose purpose is to study various types of antenna and explore its design concept through theory, experiment and measurement. It involved in Electromagnetic Propagation research, and the design of various RFID hardware.

- Aim :**
1. Design various types of antenna such as microstrip, GPS antenna , mobile phone antenna etc.
 2. Electromagnetic propagation research.
 3. Design various types of RFID hardware (tag and reader) and applications.



Researches :

Figure 1 is a monopole antenna designed for ultrawideband that meets the FCC standards (3.1-10.6 GHz). It is designed with a band –rejection in the 5-6GHz band to avoid potential interferences with the wireless local area network (WLAN) 802.11a.

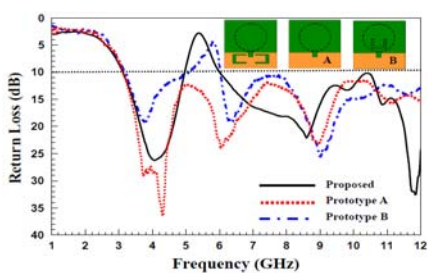
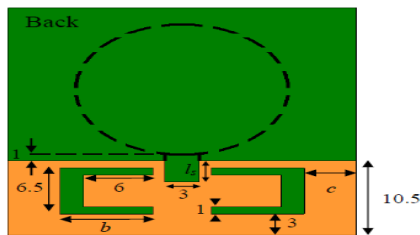


Figure 2 is a novel design of a microstrip-fed planar antenna with multiband operation in GSM(890- 960 MHz) 、 DCS(1710-1880 MHz) 、 PCS(1850-1990 MHz) 、 UMTS(1920-2170 MHz) 、 WiBor (2300-2390 MHz) 、 WLAN(2400-2484 MHz) 、 WiMAX(2500-2690 MHz) 、 GPS(1575 MHz) 、 GLONASS(1602-1616.2 MHz) .

