

Reviewer Question 1: Please present only one antenna design in your paper (with just substrate thickness) that was both simulated and measured.

Answer: Only one design is presented with FR4 substrate and thickness 1.6mm. The design specifications are given in Table 1

Reviewer Question 2: What is the radiation efficiency of your antenna design? Both simulated and measured.

Answer: The Radiation efficiency of the antenna is simulated using HFSS. The radiation efficiency of the antenna is 0.13, 0.25 and 0.34 computed at 1.57, 1.96 and 3.4 GHz. The antenna has low radiation efficiency. However, it is better than the elliptical patch antenna reported in [14], which has radiation efficiency below 0.2.

Reviewer Question 3: What is the polarization of your antenna? GPS requires circular polarization with reasonably small ellipticity.

Answer: Though GPS requires circular polarization property, a 3D planar inverted F linearly polarized antenna is reported for GPS applications [13]. The proposed antenna also has linear polarization with axial ratio (dB) at operating frequencies are 18.06dB, 22.68dB, 10.48dB at 1.57, 1.96 and 3.4 GHz operating frequencies. For a circularly polarized antenna, the axial ratio value should be less than 3dB.

Reviewer Question 4: Wi-max is an obsolete standard that is no longer used anywhere in the world, please do not mention it.

Answer: We accept the comment of the reviewer. The word ' Wi-max' is removed from the articles. Instead, we use LTE bands are covered in the 1.9GHZ and 3.4 GHz. Hence, the proposed antenna may be useful for LTE applications.

Reviewer Question 5: What are the two traces in the (red and purple) of your radiation pattern? What is the orientation of your coordinate system in which you specify the radiation pattern?

Answer: The coordinate system is XYZ (anti-clockwise or Global system) and the antenna is placed in XY plane. It is simulated using HFSS for  $\phi=0^\circ$  E plane (XZ plane) and  $\phi=90^\circ$  (YZ plane). The traces indicate the radiation pattern at  $\phi=0^\circ$  deg

(E plane) and  $\varphi=90^\circ$  (H plane). The red trace indicate the  $\varphi=0^\circ$  and purple indicate  $\varphi=90^\circ$  pattern.

Reviewer question 6: The quality of your graphics ( in particular Figure 13 ) is not acceptable for publication. Please prepare all the graphics so that it can be printed in black and white.

Answer: The quality of graphics is improved now. All the graphics except radiation pattern are prepared in black and white.

The article is revised in a following manner:

Section 1 starts with introduction

Section 2 describes the antenna design of one design with substrate thickness 1.6mm.

Simulation and experimental results are combined together. In the revised paper, it is explained in Section 3.

Section 4 concludes the paper.

All the graphics are redrawn in black and white colour.

All the revised text and figures are marked with yellow background.