

Design of L-Shape Circular Polarized Antenna with Microstrip Feed in GPS Application

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Abstract – This paper discusses about Circular Polarized (CP) antenna as an important component in satellite communication. The needs of communication in different condition such as text, SMS, video calls, MMS and so on leads to higher requirements of data rates which needs more bandwidth. This will required broadband antenna for broadband applications. The main objective of this project is to design, simulate and fabricate a broadband circular polarized (CP) antenna for wireless communication. A circularly polarized L-shaped monopole slot antenna with a single C-shaped feed is designed, simulated and fabricated. Computer Simulation Tools (CST) Studio Suite 2010 is used for the simulation process. The result demonstrates that the antenna has an Axial Ratio (AR) <3dB and a Return Loss, S_{11} = 1.5 GHz which can cover GPS application.

Keywords: *Circular Polarization, slot antenna, GPS application*

KERTAS KERJA PENUH DIMUATKAN KE DALAM DIGEST PTSB 2013