ABSTRACT

Air Navigation Engineering is closely related to supporting aviation telecommunication facilities. The facility is divided into four parts, including: Communication, Navigation, Surveillance and Automation. Nowadays with the growing technology, aviation telecommunication service facilities also go hand in hand with the transfer of the use of satellite-connected technology. This research aims to design a power divider suitable for a serially fed 2-patch microstrip antenna with a 2 x 4 MIMO model. The power divider is intended to operate at a frequency of 1090 MHz for ADS-B receiver applications. The antenna should have a targeted bandwidth of 20 MHz, S_{11} less than -10 dB, and a minimum gain of 2 dB. This project is intended to meet the requirements of ADS-B receiver research, using FR4 substrate for simulation and design through 3D Modeler Software, and SDR ADS-B kits.

***Keywords**: Power Divider, 3D Modeler Software, ADS-B, Microstrip Antenna, Airplane*