

## عنوان مقاله:

(Design and Simulation of Antennas in Aircraft with Least Disruption to Electronic Systems (WiFi Applications

## محل انتشار:

اولین کنفرانس ملی کاربردهای نوین در حوزه الکترومغناطیس (سال: 1400)

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## خلاصه مقاله:

As consumer expectations for internet use and fast data transfer increase, aircraft's poor connectivity and low speed are unacceptable. Today, high-speed in-flight connectivity has become a necessity in the airline industry. One of the most critical challenges in designing a wireless connection system inside an in-flight aircraft is understanding how electromagnetics propagation is inside the plane and its impact on the electronic systems used in the aircraft. Generally, in this paper, the idea of using multiple access points (Aps) inside the aircraft is used to reduce transmission power. A F-antenna array for multiple-input multiple-output (MIMO) applications in future fifth-generation - ( $\Delta G$ ) is presented in this paper (simulated with CST and FEKO software). The antenna array consists of four double band antennas, which can cover  $\Delta G$  and use WiFi applications in the aircraft. Using the proposed antenna array can eliminate the existing optical fiber in the plane and optimize traditional access points. Still, the capacity is also increased, the interference is- mitigated, the measured total efficiency is over 60%, and isolation is better than 14dB .between each port

## کلمات کلیدی:

access points; communications on aircraft; double band antenna; MIMO; WiFi applications

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1314743>

