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Video Channel Suppression Method of Unmanned Aerial Vehicles

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Abstract

For this paper, a noise generator based on the ADF435x board was developed and a spectrum analyzer based on Pololu Wixel with OLED. A simple Unmanned Aerial Vehicle (UAV) DJI Tello was used as a test bench, which operates in the 2.4 GHz frequency range. The problem of cooling the stationary UAV was constructively solved during the creation of the experimental model. The study results show that the influence of an external noise generator can lead to significant image distortions, which can lead to piloting errors. And after the limit value of 7.33%, the video signal transmission is stopped, and the control signals may be partially lost. © 2022 IEEE.

Author keywords

Cyberattack; drone; jamming; noise generator; radio suppression; UAV; unmanned aerial vehicle

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