

## The Maximum Throughput Analysis of UAV Datalink 802.11b Protocol

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**Abstract :** This IEEE 802.11b protocol provides up to 11Mbps data rate, whereas aerospace industry wants to seek higher data rate COTS data link system in the UAV. The Total Maximum Throughput (TMT) and delay time are studied on many researchers in the past years. This paper provides theoretical data throughput performance of UAV formation flight data link using the existing 802.11b performance theory. We operate the UAV formation flight with more than 30 quad copters with 802.11b protocol. We may be predicting that UAV formation flight numbers have to bound data link protocol performance limitations.

**Keywords :** UAV datalink, UAV formation flight datalink, UAV WLAN datalink application, UAV IEEE 802.11b datalink application

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