

OFDM 系統於非頻率選擇性衰落通道中工作時的系統效能研究

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摘要

正交分頻多工(orthogonal frequency division multiplexing, OFDM)是一種能夠減緩延遲傳播效能的多工技術，特別是用在非頻率選擇性的頻率衰減通道。因此，研究在不同非頻率選擇性衰落通道OFDM系統執行效能是具有極大的利益。OFDM已成為新的無線通訊應用中最熱門之傳輸調變選擇。基於此，本文仍朝此一方向，利用正交分頻多工信號調變方法，將探討正交分頻多工系統工作於非頻率選擇性衰落通道呈現瑞雷(Rayleigh)分佈、萊斯(Ricean)分佈統計特性時的系統效能分析。並假設接收端利用選擇性分集(selective combining, SC)方法，當非頻率選擇性衰落通道呈現韋布(Weibull)分佈的統計特性，研究正交分頻多工系統在不同的衰落變因係數下之系統效能分析。

關鍵詞：正交分頻多工，多重路徑，非頻率選擇性衰落，無線通訊衰落通道，位元錯誤率

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