

降低位元傳輸率來降低OFDM的峰值因數

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摘要

本文提出以降低位元傳輸率的技術來降低OFDM訊號中的峰值因素(Crest Factor, CF), 其峰值因數或是峰值對均值比(Peak to Average Power Ratio, PAPR)會隨著子載波數量的多寡與頻率高低的不同而改變, 減少一個位元傳輸率就是減少一個高頻子載波, 本文先嘗試以4個位元傳輸率以SYSTEM VIEW 軟體作模擬, 再以其中模擬結果使用互補累積分佈函數(Complementary Cumulative Distribution Function, CCDF)以10⁻³情形下作出結果並且分析, 輸出四個位元傳輸率的峰值因素為7.78dB, 再進行輸出三個位元傳輸率峰值因數為6.39dB, 兩者做比較可知峰值因數降低了1.39dB, 之後輸出兩個位元傳輸率的峰值因素為4.74dB, 再與四個位元傳輸率比較發現峰值因數降低3.04dB, 比較三種模擬以圖表顯示, 峰值對均值率比有明顯下降結果。

關鍵詞: 正交分頻多工

目錄

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