下鏈直序超寬頻脈波無線電系統在多重路徑干擾下之盲敝式接收機設計

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摘 要

超寬頻 (UWB) 脈波無線電系統因其低功率，不需載波及多重路徑多樣性等優點，近來受到廣泛的注意。在許多的調變及多工技術當中，本文探討直序 (DS) 二位元相移 (BPSK) 調變使用於下鏈多重路徑干擾通道。我們首先概述同步DS-UWB 系統吸引人之特性並且據以設計一低複雜度之RAKE 行動台 (MS)接收機。然而，由於準確的通道訊息是可靠解調之決定因素，因此本文提出一盲蔽式 (不需數據幫助) 通道估計器。我們進行性能評估以驗證通道估計法則之準確度 (以均方根誤差為衡量標準) 以及盲敝式行動台接收機之可靠度 (以位元錯誤率為衡量標準)。

關鍵詞 : 超寬頻、盲敝式估計、RAKE接收機、多用戶干擾、下鍊

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