

在超寬頻多重路徑通道系統中設計盲蔽式降低維度之適應性行動台接收機 = Design of blind reduced-rank adaptive mobile ...

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摘要

本文探討在超寬頻(UWB)脈波無線電(IR)系統中設計盲蔽式適應性接收機。首先利用具限制性條件的最佳化技術設計一組盲蔽式行動接收機。為了減少計算上的複雜度以及在室內無線通道中密集的多重路徑，我們基於廣義的旁波瓣消除器原理提出一降低秩的盲蔽式適應性接收機。此演算法是反覆的計算到得到最好的權重向量和通道參數去改進此系統的性能。模擬結果顯示所設計的適應性接收機會趨近於最佳化接收機。此外，此演算法也能有效抵抗多用戶干擾和遠近問題。

關鍵詞：超寬頻；盲蔽式；廣義的旁波瓣消除器；多用戶干擾；最小輸出功率

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