STRR與ATRR接收機於UWB系統中之開發研究

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摘 要

以正交分頻多工 (orthogonal frequency division multiplexing, OFDM) 技術之觀念為基礎，進而從超高頻(ultra-wideband,UWB)之工作原理基礎層面論述出發，以理論分析UWB系統中平均發射參考接收機 (average transmit reference receiver, ATRR) 與簡易型發射參考接收機 (simple transmit reference receiver, STRR) 接收機工作於理想環境，於本研究中提出；加上多重近接通道中的系統效能和系統容量的模擬，以理論模擬分析系統工作的可能性與可靠度；並且試圖使得UWB之技術應用得以更上層樓之外，提出以建構於下一代，第四代(4th generation)無線通訊系統之規範為目標之基礎下，且能符合無線通訊實際作業環境下之蜂巢環境，針對無線擷取(wireless access)技術，長距傳輸以MC-CDMA系統為主，再結合超寬頻擷取技術應用於短距傳輸，深植通訊產業之根基

關鍵詞 : 正交分頻多工、發射參考式接收機、超寬頻、多載波分碼多重擷取

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