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Multicode Multicarrier Interleave Division Multiple Access Communication

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Abstract

A new Mulitcode Multicarrier Interleave Division Multiple Access (MC-MC-IDMA) system is proposed and analyzed in frequency selective channels. The system supports different modulation schemes for variables data rates. Each user transmits his message by choosing a sequence from an orthogonal code-set. An MC-MC-IDMA system achieves spreading gains both in time and frequency domains. Bit error rate of the system is derived and simulation results are presented.