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Docket No. CM03722J

**DATA CHANNEL PROCEDURE FOR SYSTEMS EMPLOYING
FREQUENCY DIVERSITY**

ABSTRACT

[0049] The invention relates to a method for use in wireless data communications for facilitating two way data transfer between devices employing frequency diversity. It is generally suited toward units accomplishing frequency diversity by way of frequency hopped spread spectrum operation. The basic unit of the invention is an individual data frame whose reliability is enhanced by a unique combination of redundant error correction coding, time-, and frequency-diversity. The invention further extends the individual data frame concept to a complete asynchronous data message which comprises both a call establishment phase and a traffic phase. The traffic phase extends the basic data frame to encompass a complete data message. That message, which already contains the enhancements of the basic data frame, is further enhanced by repeating itself as many times as can fit in the transmission. In order to allow asynchronous operation, the call establishment phase is sent using a known frequency sequence, while the traffic phase is pseudorandomly ordered in such a manner that the entire transmission appears pseudorandom, and all frequencies are employed equally on average.



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