

Title (en)  
PAGING METHOD AND APPARATUS WITH ACKNOWLEDGEMENT CAPABILITY

Title (de)  
PERSONENRUFVERFAHREN UND VORRICHTUNG MIT BESTATIGUNGSFAHIGKEIT

Title (fr)  
PROCEDE ET APPAREIL DE TELEAPPEL AVEC FONCTION D'ACCUSE DE RECEPTION

Publication  
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Application  
**EP 98913965 A 19980402**

Priority  
GB 9800980 W 19980402

Abstract (en)  
[origin: WO9952302A1] A radio frequency paging service has one or more TDMA return channels (R) in which terminals (14) acknowledge receipt of messages having an acknowledge flag set. In one alternative, slots are allocated in the return channel (R) by a slot allocation field in the respective messages. In another alternative, each terminal (14) monitors the messages addressed to other terminals (14) to determine which of them require a response, and determines, from the order of a message addressed to itself among the messages requiring a response, which slot to use for acknowledgement. The TDMA return channels (R) include unreserved slots which terminals (14) access on a contention basis. The frequencies of transmissions in the slots are randomized within a predefined limit to reduce the probability of interference between different terminals (14) in the same unreserved slot. The predefined limit is based on the maximum differential Doppler shift between terminals (14). The return channels (R) are allocated as a continuous block of frequency channels, thereby reducing signalling overhead when allocating these channels, and allowing the block of channels to be decoded by a single DSP. Data bursts transmitted by the terminals (14) in the return channels (R) are half-rate convolutionally encoded and interleaved so that the transmitted bit sequence contains alternating bits from the two outputs of the half-rate encoder. Each terminal (14) is identified by a forward identity code in received messages and by a return identity code in transmitted messages, the identity codes being related by a predetermined algorithm.

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**H04Q 7/12**

IPC 8 full level  
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