

Title (en)  
FREQUENCY DIVISION MULTIPLEXING OF MULTIPLE DATA STREAMS IN A WIRELESS MULTI-CARRIER COMMUNICATION SYSTEM

Title (de)  
FREQUENZMULTIPLEXEN MEHRERER DATENSTRÖME IN EINEM DRAHTLOSEN MEHRTRÄGER-KOMMUNIKATIONSSYSTEM

Title (fr)  
MULTIPLEXAGE EN FREQUENCES DE FLUX MULTIPLES DE DONNEES DANS UN SYSTEME SANS FIL DE COMMUNICATION A PLUSIEURS PORTEUSES

Publication  
**EP 1678906 A1 20060712 (EN)**

Application  
**EP 04817335 A 20041021**

Priority  

- US 2004035042 W 20041021
- US 51431503 P 20031024
- US 55974004 P 20040405
- US 93258604 A 20040901

Abstract (en)  
[origin: WO2005041515A1] Techniques for multiplexing multiple data streams using frequency division multiplexing (FDM) in an OFDM system are described. M disjoint "interlaces" are formed with U usable subbands. Each interlace is a different set of S subbands, where . The subbands for each interlace are interlaced with the subbands for each of the other interlaces. M slots may be defined for each symbol period and assigned slot indices 1 through M. The slot indices may be mapped to interlaces such that (1) frequency diversity is achieved for each slot index and (2) the interlaces used for pilot transmission have varying distances to the interlaces used for each slot index, which improves channel estimation performance. Each data stream may be processed as data packets of a fixed size, and different numbers of slots may be used for each data packet depending on the coding and modulation scheme used for the data packet.

IPC 1-7  
**H04L 27/26**; **H04L 5/02**; **H04L 1/00**

IPC 8 full level  
**H04L 1/00** (2006.01); **H04L 5/02** (2006.01); **H04L 27/26** (2006.01)

CPC (source: EP KR)  
**H04L 5/0039** (2013.01 - EP); **H04L 5/0046** (2013.01 - EP); **H04L 5/0048** (2013.01 - EP); **H04L 5/0064** (2013.01 - EP); **H04L 25/0226** (2013.01 - EP); **H04L 27/26** (2013.01 - KR); **H04L 5/0007** (2013.01 - EP); **H04L 27/2655** (2013.01 - EP)

Citation (search report)  
See references of WO 2005041515A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
**WO 2005041515 A1 20050506**; AU 2004307449 A1 20050506; AU 2004307449 B2 20081120; AU 2004307449 C1 20090430; BR PI0415840 A 20070102; CA 2543771 A1 20050506; CA 2543771 C 20100420; EP 1678906 A1 20060712; JP 2007509586 A 20070412; KR 100944821 B1 20100303; KR 20060086439 A 20060731

DOCDB simple family (application)  
**US 2004035042 W 20041021**; AU 2004307449 A 20041021; BR PI0415840 A 20041021; CA 2543771 A 20041021; EP 04817335 A 20041021; JP 2006536827 A 20041021; KR 20067009990 A 20041021