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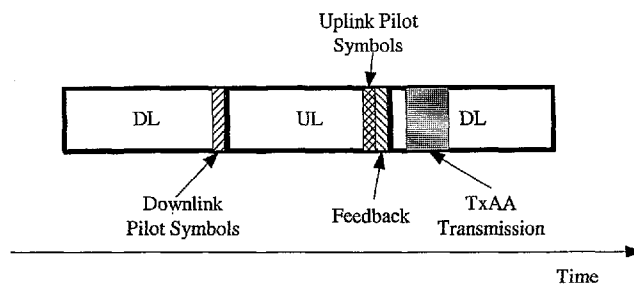
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(54) Title: METHOD AND APPARATUS FOR CHANNEL FEEDBACK



Example time diagram for feedback in a TDD communication system (DL is DownLink and UL is UpLink). Receive SDMA techniques are can be used on the uplink so that multiple mobiles can send their feedback on the same time-frequency resources.

(57) Abstract: A method for communicating channel estimates on a plurality of subcarriers between a transmitting device and a receiving device. The transmitting device determines a channel estimates on a plurality of subcarriers and then encodes the channel estimates into at least one encoded channel waveform. Then the transmitting device transmits the at least one encoded channel waveform to the receiving device.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/39234

A. CLASSIFICATION OF SUBJECT MATTER

IPC: **H04L 1/02**

USPC: Please See Continuation Sheet

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
BRS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2004/0042427 A1 (HOTTINEN) 04 March 2004; Fig. 1, 2; whole document	1, 2, 4-6, 11
X, P	US 2006/0068718 A1 (LI et al.) 30 March 2006; whole document	1, 2, 4-6, 11
X, P	US 2006/0039489 A1 (IKRAM et al.) 23 February 2006; whole document	1, 2, 4-6, 11

Further documents are listed in the continuation of Box C.

See patent family annex.

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"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

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Continuation of B. FIELDS SEARCHED Item 1:

375/140, 141, 146, 147, 219, 220, 260, 267, 299, 340; 370/203, 278, 282, 319, 320, 321, 330, 342, 343, 344, 441, 442, 464, 465, 478-480; 455/49.1, 67.1, 101, 103, 132, 226.1, 272

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