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- (71) Applicant (for all designated States except US): TELEFONAKTIEBOLAGET L M ERICSSON (PUBL) [SE/SE]; S-164 83 Stockholm (SE).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): JONSSON, Elias [SE/SE]; Södra Promenaden 3, S-211 29 Malmö (SE).
- (74) Agent: ERICSSON AB; Patent Unit Mobile Platforms, Nya Vattentornet, S-221 83 Lund (SE).

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(54) Title: A METHOD FOR INTERFERENCE ESTIMATION FOR ORTHOGONAL PILOT PATTERNS

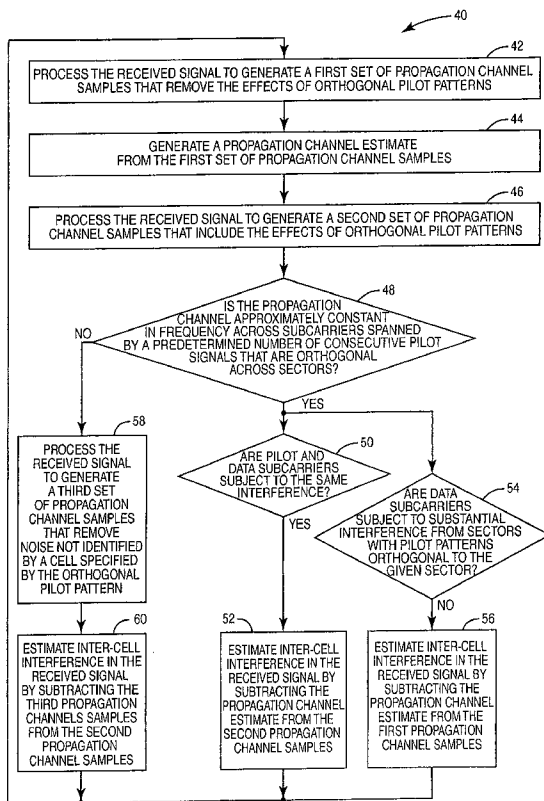


FIG. 4

(57) Abstract: In an OFDM communications system receiver, channel estimates are processed to remove or reduce noise, exploiting the orthogonality of pilot patterns. The de-noised channel estimates are then used to compute inter-cell interference. The noise effects of orthogonal pilot patterns are selectively removed from channel samples in estimating inter-cell interference, depending on whether data subcarriers are subject to the same interference as pilot subcarriers, and whether data subcarriers are subject to interference from sectors with pilot patterns orthogonal to those in the transmitting sector. A further calculation removes noise from cells not identified by an orthogonal pilot sequence, which may be particularly applicable when large variations exist in the frequency domain of the propagation channel across a pilot pattern.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
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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 practical, search terms used)
 EPO-Internal, INSPEC

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 499 059 A (MOTOROLA INC [US]) 19 January 2005 (2005-01-19) abstract; figure 3 paragraphs [0022] - [0034]	1,16
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Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents :

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Date of the actual completion of the international search 5 November 2008	Date of mailing of the international search report 11/11/2008
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer Horbach, Christian
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International application No
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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