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(71) Applicant: QUALCOMM, Incorporated [US/US]; 5775 Morehouse Drive, San Diego, CA 92121 (US).

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(72) Inventors; and

(75) Inventors/Applicants (for US only): RILEY, Wyatt [US/US]; 540 Stevens Drive, #208, King of Prussia, PA 19406 (US). PATRICK, Christopher [TI/US]; 14358 Dalhousie Road, San Diego, CA 92129 (US).

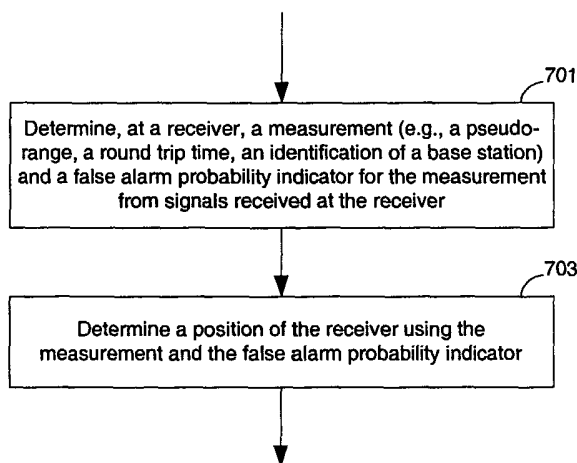
(74) Agents: CHOI, Jae-Hee et al.; 5775 Morehouse Drive, San Diego, CA 92121 (US).

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(54) Title: METHOD AND APPARATUS FOR PROCESSING NAVIGATION DATA IN POSITION DETERMINATION



(57) Abstract: Methods and apparatuses for the processing of false alarms in position determination. At least one embodiment of the present invention estimates and uses measurement false alarm probabilities in the position determination process. In one embodiment, the estimated measurement false alarm probabilities are combined to determine the reliability of the determined position solution or the reliability of the set of measurements as a collection. In one embodiment, the estimated measurement false alarm probabilities are used in the isolation and elimination of faulty measurements. For example, the traditional geometry based metric for identifying a faulty measurement is further weighted according to the measurement false alarm probabilities in order to determine the faulty measurement.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
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 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)
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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 EAST

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-------------------------------|
| X | US 2002/0132626 A1 (TSUNEHARA et al) 19 September 2002 (19.09.2002), see entire document, spec. Figs 1-3. | 1-78 |
| X | US 6,486,831 B1 (MARTORANA et al) 26 November 2002 (26.11.2002), see entire document | 1-78 |
| X | US 6,249,245 B1 (WATTERS et al) 19 June 2001 (19.06.2001), col. 23, lines 3-27. | 1-78 |
| X | US 6,480,784 B2 (MIZUNO) 12 November 2002 (12.11.2002) see entire document | 1-78 |
| A | US 5,999,126 A (ITO) 07 December 1999 (07.12.1999) see entire document | 1-78 |
| A | US 5,311,195 A (MATHIS et al) 10 May 1994 (10.05.1994) see entire document particularly Figure 3, col 5, line 7, - col. 8, line 46. | 1--10, 21-30, 41-50 and 61-68 |

Further documents are listed in the continuation of Box C. See patent family annex.

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Name and mailing address of the ISA/US:
 Mail Stop PCT, Attn: ISA/US
 Commissioner for Patents
 P.O. Box 1450
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 Facsimile No. (703) 305-3230

Authorized officer:
 Gregory C. Issing *[Signature]*
 Telephone No. 703-306-4171

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PCT/US04/04597**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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| E, X | US 2003/0130987 (EDLUND et al) 10 July 2003 (10.07.2003), see Figs. 3 and 5-8. | 1-78 |
| P, X | US 6,691,066 B1 (BRODIE) 10 February 2004 (10.02.2004), col. 6, line 19-col. 8, line 35. | 1-78 |