

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 December 2003 (24.12.2003)

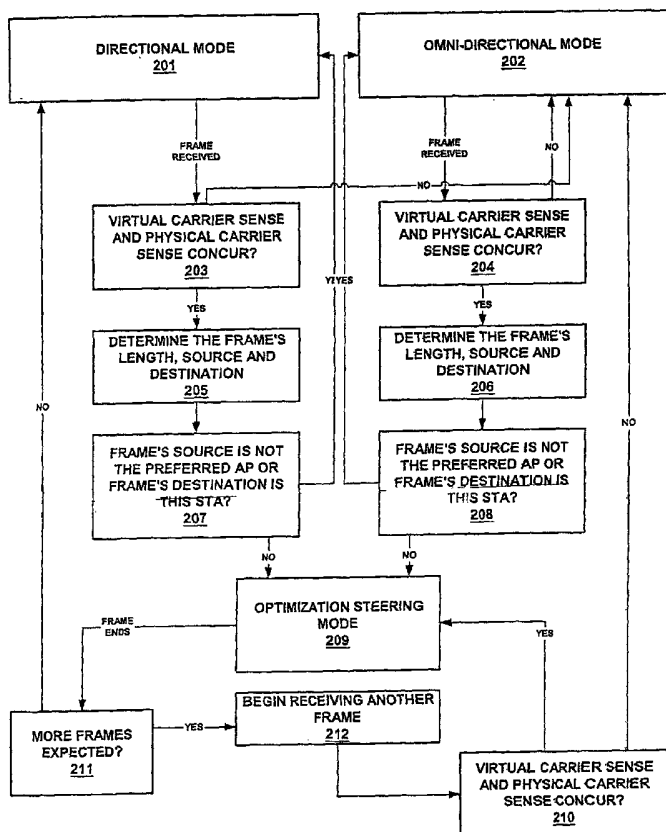
PCT

(10) International Publication Number
WO 2003/107577 A3

- (51) International Patent Classification⁷: H01Q 19/06, 3/26
- (74) Agents: THIBODEAU, David, J., Jr. et al.; Hamilton, Brook, Smith & Reynolds, P.C., 530 Virginia Road, P.O. Box 9133, Concord, MA 01742-9133 (US).
- (21) International Application Number: PCT/US2003/018990
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 16 June 2003 (16.06.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/389,477 17 June 2002 (17.06.2002) US
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant: TANTIVY COMMUNICATIONS, INC. [US/US]; 1450 South Babcock Street, Melbourne, FL 32901 (US).
- (72) Inventors: GAINEY, Kenneth, M.; 441 Thrush Drive, Satellite Beach, FL 32937 (US). FOORE, Lawrence, Robert; 1078 Helena Avenue, Palm Bay, FL 32907 (US).

[Continued on next page]

(54) Title: ANTENNA STEERING SCHEDULER FOR MOBILE STATION IN WIRELESS LOCAL AREA NETWORK



(57) Abstract: Methods of scheduling optimization of communications used with Wireless Local Area Network (WLAN) equipment that employs steerable directional antennas (121). The methods may use and are compatible with Media Access Control (MAC) layers of IEEE 802.11 group of standards. The methods do not depend on any particular PHY layer standard.

WO 2003/107577 A3



Published:

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(88) Date of publication of the international search report:

29 April 2004

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/18990

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H01Q 19/06, H01Q 3/26
 US CL : 343/754, 757, 853; 342/154, 157, 368, 374.

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. : 343/754, 757, 853; 342/154, 157, 368, 374.

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)


C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6,515,635 B2 (CHIANG et al) February 04, 2003 (02.04.2003), Fig. 10, col. 7, lines 23+.	1-10
A	US 6,195,045 B1 (XU et al) February 27, 2001 (27.02.2001), Fig. 1, col. 2.	1-10
X	US 5,767,807 A (PRITCHETT) 16 June 1998 (16.06.1998), Fig. 6, col. 6, line 39 to col. 7, line 42.	10
---		-----
A		1-9

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

<p>* Special categories of cited documents:</p> <p>"A" document defining the general state of the art which is not considered to be of particular relevance</p> <p>"E" earlier application or patent published on or after the international filing date</p> <p>"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)</p> <p>"O" document referring to an oral disclosure, use, exhibition or other means</p> <p>"P" document published prior to the international filing date but later than the priority date claimed</p>	<p>"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention</p> <p>"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</p> <p>"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art</p> <p>"&" document member of the same patent family</p>
---	---

Date of the actual completion of the international search	Date of mailing of the international search report
26 February 2004 (26.02.2004)	16 MAR 2004

Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230	Authorized officer <div style="text-align: center;">  Trinh Vo Dinh </div> Telephone No. (571) 272-1821
--	--