

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
24 January 2002 (24.01.2002)

PCT

(10) International Publication Number
WO 02/07458 A3

(51) International Patent Classification⁷: **H04Q 7/38**

(21) International Application Number: PCT/US01/21993

(22) International Filing Date: 11 July 2001 (11.07.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/218,322 14 July 2000 (14.07.2000) US
Not furnished 10 July 2001 (10.07.2001) US

(71) Applicant: **QUALCOMM INCORPORATED** [US/US];
5775 Morehouse Drive, San Diego, CA 92121-1714 (US).

(72) Inventor: **GAAL, Peter**; 9515 Easter Way, #6, San Diego,
CA 92121 (US).

(74) Agents: **WADSWORTH, Philip, R.** et al.; Qualcomm Incorporated, 5775 Morehouse Drive, San Diego, CA 92121-1714 (US).

(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, 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, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

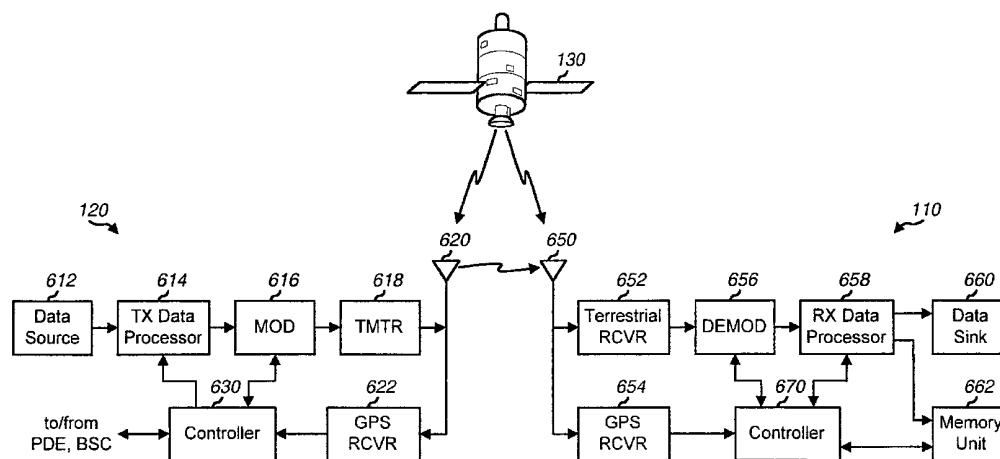
Published:

- 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

(88) Date of publication of the international search report:
13 June 2002

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.

(54) Title: METHOD AND APPARATUS FOR BROADCASTING POSITION LOCATION DATA IN A WIRELESS COMMUNICATION SYSTEM



(57) Abstract: Techniques to efficiently broadcast position location data (PLD) from a base station 120 to a number of terminals 110. In one aspect, PLD messages are classified into groups, and each group is broadcast in a different manner. For example, a first group of messages for PLD related to the base station 120 is broadcast in an unscheduled format, and a second group of messages for PLD related to GPS satellites 130 is broadcast in a scheduled format. In another aspect, a schedule for the second group describes the specific PLD elements selected for broadcast, their broadcast order, and the specific time intervals of their broadcast. The schedule is valid for a particular scheduled time interval, and the scheduling table is broadcast multiple times during the schedule time interval to allow the terminals 110 to quickly retrieve the schedule and ascertain what PLD information is being broadcast and where to look for specific PLD elements.

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 01/21993

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 H04Q7/38

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)

IPC 7 H04Q

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	"Position Determination Service Standard for Dual Mode Spread Spectrum Systems" TIA/EIA INTERIM STANDARD TIA/EIA/IS-801, 1 November 1999 (1999-11-01), pages 1-131, XP002193648 cited in the application the whole document ----	1,2,8,10
Y	EP 0 928 119 A (NOKIA MOBILE PHONES LTD.) 7 July 1999 (1999-07-07) abstract; figures 1-3 column 2, line 56 -column 3, line 17 ----	1,2,8,10
A	US 5 701 328 A (SCHUCHMAN ET AL.) 23 December 1997 (1997-12-23) abstract; figures 3A-4 ----- -/--	1,2,8,10



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *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)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *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
- *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
- *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.
- * & * document member of the same patent family

Date of the actual completion of the international search

20 March 2002

Date of mailing of the international search report

12/04/2002

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Danielidis, S

INTERNATIONAL SEARCH REPORT

In .ational Application No

PCT/US 01/21993

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,A	EP 1 079 642 A (LUCENT TECHNOLOGIES INC.) 28 February 2001 (2001-02-28) column 8, line 3 - line 37 ---	1,2,8,10
A	EP 0 944 275 A (HITACHI,LTD.) 22 September 1999 (1999-09-22) claims 1-4 -----	1,2,8,10

INTERNATIONAL SEARCH REPORT

Information on patent family members

In International Application No

PCT/US 01/21993

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 928119	A	07-07-1999	FI 980014 A	06-07-1999
			FI 981663 A	06-07-1999
			BR 9900005 A	28-12-1999
			CN 1234702 A	10-11-1999
			CN 1230083 A	29-09-1999
			EP 0928119 A2	07-07-1999
			EP 0930798 A2	21-07-1999
			JP 11252009 A	17-09-1999
			JP 3163070 B2	08-05-2001
			JP 11275006 A	08-10-1999
US 5701328	A	23-12-1997	US 5604765 A	18-02-1997
			AU 5354796 A	11-09-1996
			WO 9626591 A1	29-08-1996
			AU 4684596 A	19-07-1996
			WO 9620542 A1	04-07-1996
			US 6111538 A	29-08-2000
			US 6160837 A	12-12-2000
EP 1079642	A	28-02-2001	CN 1286546 A	07-03-2001
			EP 1079642 A1	28-02-2001
			JP 2001119340 A	27-04-2001
EP 944275	A	22-09-1999	CN 1235437 A	17-11-1999
			EP 0944275 A2	22-09-1999
			JP 11331070 A	30-11-1999
			US 6256509 B1	03-07-2001