(19) World Intellectual Property Organization

International Bureau

(43) International Publication Date 11 November 2010 (11.11.2010)





(10) International Publication Number WO 2010/129122 A3

(51) International Patent Classification: *H04W 52/04* (2009.01)

(21) International Application Number:

PCT/US2010/029937

(22) International Filing Date:

5 April 2010 (05.04.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/173,059

27 April 2009 (27.04.2009)

US

(71) Applicant (for all designated States except US): AIR-BIQUITY INC. [US/US]; 1011 Western Avenue, Suite 600, Seattle, WA 98104 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): QUIMBY, David [US/US]; 3421 NE 23rd Place, Renton, WA 98104 (US). JOHNSON, Ken [US/US]; 7126 32nd Avenue SW, Seattle, WA 98126 (US). HONG, Leon, L. [US/US]; 1308 235th Place SE, Sammamish, WA 98075 (US).
- (74) Agents: COFIELD, Michael, A. et al.; 621 SW Morrison Street, Suite 600, Portland, OR 97205 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

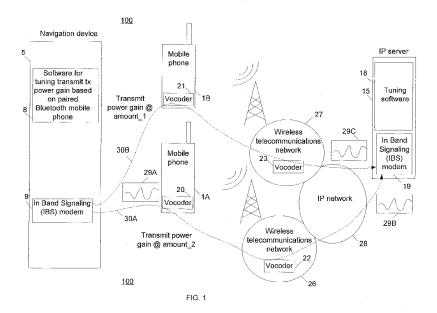
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
- (88) Date of publication of the international search report:

29 December 2010

(54) Title: AUTOMATIC GAIN CONTROL IN A PERSONAL NAVIGATION DEVICE



(57) Abstract: In one example, a Bluetooth enabled navigation device pairs with a mobile phone and then sends a plurality of tuning transmissions, each at a different transmission power gain amount, to a remote server using the mobile phone. These tuning transmissions are encoded using frequency tones that synthesize speech for transmission through the mobile phone and a voice channel of its wireless telecommunications network. The navigation device then tunes transmit power settings according to a received response to the tuning transmissions and uses the tuned transmit power settings for subsequent transmission to the remote server using this particular mobile phone.



INTERNATIONAL SEARCH REPORT

International application No PCT/US2010/029937

		· · · · · · · · · · · · · · · · · · ·							
A. CLASSIFICATION OF SUBJECT MATTER INV. H04W52/04 ADD.									
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) H04W H04M									
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, WPI Data									
C. DOCUMENTS CONSIDERED TO BE RELEVANT									
Category*	Citation of document, with indication, where appropriate, of the rele	evant passages I	Relevant to claim No.						
A	US 5 864 578 A (YUEN ELMER [HK]) 26 January 1999 (1999-01-26) * abstract column 1, line 49 - column 2, lin column 18, line 41 - column 22, l claims 1-15	ne 60	1-20						
Further documents are listed in the continuation of Box C. X See patent family annex.									
·		"T" later document published after the international or priority date and not in conflict with the app	plication but						
considered to be of particular relevance cited to understand the principle or theory underlying the invention									
"E" earlier document but published on or after the international filing date "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to									
"L" document which may throw doubts on priority claim(s) or involve an inventive step when the document is taken alone which is cited to establish the publication date of another "Y" document of particular relevance: the claimed, invention									
"O" docume	"O" document referring to an oral disclosure, use, exhibition or cannot be considered to involve an inventive step when the document is combined with one or more other such docu—								
"P" docume	other means ments, such combination being obvious to a person skilled in the art.								
	nan the priority date claimed actual completion of the international search	document member of the same patent family Date of mailing of the international search report							
	2 October 2010	28/10/2010							
Name and n	nailing address of the ISA/	Authorized officer							
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk									
	Tel. (+31–70) 340–2040, Fax: (+31–70) 340–3016	Lai, Cristiana							

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2010/029937

						101/002010/02330/		
Pate cited in	ent document n search report		Publication date	F	Patent family member(s)		Publication date	
US 5	5864578	A	26-01-1999	US	6215811	B1	10-04-2001	