



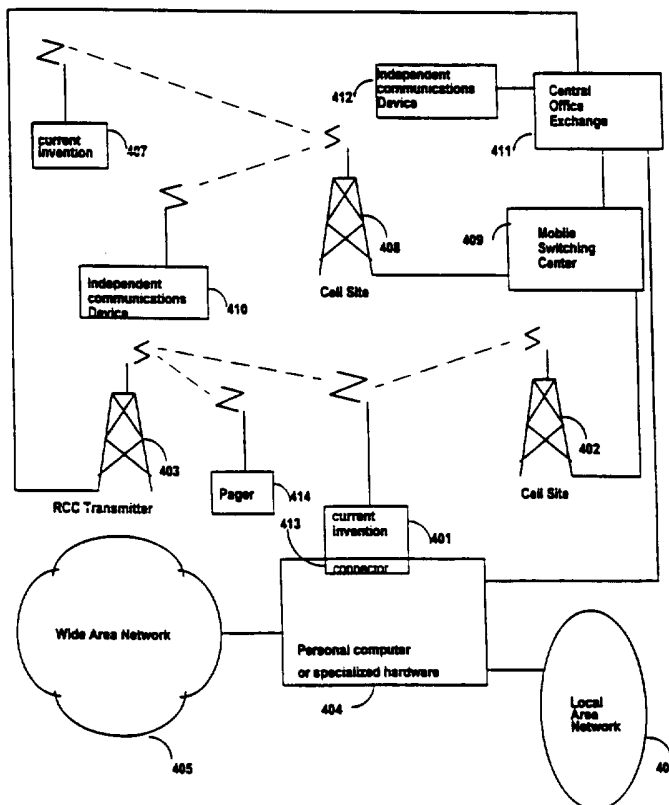
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁶ : H04Q 7/32</p>	<p>A3</p>	<p>(11) International Publication Number: WO 95/34998 (43) International Publication Date: 21 December 1995 (21.12.95)</p>
<p>(21) International Application Number: PCT/US95/06881 (22) International Filing Date: 6 June 1995 (06.06.95) (30) Priority Data: Not furnished 6 June 1994 (06.06.94) US (71)(72) Applicant and Inventor: TSAKANIKAS, Peter, James [US/US]; Building 51 #108, 3080 North Course Drive, Palm-Aire Country Club of Florida, Pompano Beach, FL 33069 (US). (74) Agent: ZITO, Joseph, J.; Suite 300, 1919 Pennsylvania Avenue, N.W., Washington, DC 20006 (US).</p>	<p>(81) Designated States: AM, AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KE, KG, KP, KZ, LK, LT, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, VN, European patent (AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG), ARIPO patent (KE, MW, SD, SZ, UG).</p> <p>Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i></p> <p>(88) Date of publication of the international search report: 1 February 1996 (01.02.96)</p>	

(54) Title: COMMUNICATIONS ACCESS SYSTEM

(57) Abstract

Devices for interactive communication of voice, control, and data in a multifunction communication access system, including cellular telephones (401, 407) with enhanced capabilities to enable more flexible communications, including control interfacing. These systems and devices also have the ability to employ alphanumeric data entry and transmission for a wide variety of applications and to interface with multiple communications networks (405, 406, 411). The system includes a stationary network and mobile units. The mobile units can include low power and high power components. The low power components are normally active, while the high power components are active only upon initiation by specific signals within the system. The mobile devices can be programmed remotely throughout the system through entry of control or programming signals from alphanumeric input devices.



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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/06881

A. CLASSIFICATION OF SUBJECT MATTER

IPC(6) :H04Q 7/32
US CL : 379/57

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. : 379/57, 58, 59, 100, 102-107; 455/33.1, 38.3, 343

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
NONE

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

APS
search terms: program, alpha-numeric or alphanumeric, display?, touch-tone or touchtone or DTMF or Dual-tone, remote

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	GB, A, 2230162 (NONAMI) 10 October 1990; see Abstract, figure 6.	1-12
X, E	US, A, 5,438,701 (YAMADA ET AL.) 01 August 1995; see Abstract, figures 1-5.	1-12
X	GB, A, 2249923 (HIGUCHI ET AL.) 20 May 1992; see Abstract, figures.	15-19
X	US, A, 5,016,269 (ROGERS) 14 May 1991; see Abstract, figures 1, 2.	15-19
X	US, A, 4,788,714 (HASHIMOTO) 29 November 1988; see Abstract.	13
X	US, A, 5,119,412 (ATTALLAH) 02 June 1992; see Abstract.	13

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

* Special categories of cited documents:	*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
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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)	*&* document member of the same patent family
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	

Date of the actual completion of the international search

17 SEPTEMBER 1995

Date of mailing of the international search report

08 DEC 1995

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/06881

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US, A, 5,216,706 (NAKAJIMA) 01 June 1993; see Abstract, column 2, lines 34-66.	15, 17-19.
X	US, A, 4,860,340 (SUZUKI ET AL.) 22 August 1989; see Abstract	15, 17-19
X, P	US, A, 5,414,756 (LEVINE) 09 May 1995; see Abstract, figures.	13
X	US, A, 5,297,191 (GERSZBERG) 22 MARCH 1994; see Abstract, figures.	15-19
X	US, A, 4,893,335 (FULLER ET AL.) 09 January 1990; see Abstract, figures, column 3, lines 39-54.	13

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/06881

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claims Nos.: 14, 20-57,
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

Please See Extra Sheet.

3. Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

Please See Extra Sheet.

1. As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
1-13, 15-19

4. No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- The additional search fees were accompanied by the applicant's protest.
 No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US95/06881

BOX I. OBSERVATIONS WHERE CLAIMS WERE FOUND UNSEARCHABLE

2. Where no meaningful search could be carried out, specifically:

Regarding claims 14, 20-57, there is no support within the specification for a "universally adaptable communication device". There is no support within the specification for "simultaneous multi-path communication of data and control information with a plurality of independent communication devices"; see claims 14, 20, and 21.

With respect to claim 20, there is no support within the specification for "unique code" and "unique echo back signal corresponding to said code" in relation to the "adaptable communication device".

With respect to claims 21-57, there is no disclosure of the of the means within an independent communication device, e.g., the disclosure is void of any description of an encoding means, alert means, or means for implementation, in relation to an "independent communication device". The disclosure states on page 19, line 33 and following, "Figure 4 further illustrates the possible communication routes to another embodiment of the current invention 407 and to independent communication devices 410 and 412". This was all that was found in relation to the independent communication devices.

With respect to claim 22, the passage "said communication device" is vague. It is unclear which claimed "communication device" is being referred to.

With respect to claim 23, the passages "said output signal", "said means for generating said output signal", "said first digital code information", "said indicia", "said indicia of said number", and "said number of successive identical designation signals", all lack appropriate antecedent support.

With respect to claim 24, the phrases "said translation means", and "said designation signal", lack appropriate antecedent support.

With respect to claim 25, it is unclear which device is being referred to in the phrase "said communication device"

With respect to claim 27, the phrase "said utilization device" lacks appropriate antecedent support.

With respect to claim 31, the phrases "said translation means", "said designation signals", and "a respective second digital code information", lack appropriate antecedent support.

With respect to claims 32-42, it is unclear which "communication device" is being referred to.

With respect to claim 44, there is no support within the specification for "means for subsequently sequentially depressing a selected one of said keys".

With respect to claim 46, the phrase "said strobe control signal" lacks appropriate antecedent support.

With respect to claim 47, the passages "said memory means output signals", "said designation signals", "said address signal", "said signal", "said strobe control signal", "said set of designation signals", "said telephone set", and "said storage means", all lack appropriate antecedent support; as well as, it is unclear as to which "said communication device" is being referred to. Claim 48 tends to contradict claim 47. From claim 47 one reads "a set of particular designation signals not including said selected first designation signal". The counter of claim 47 uses the sequential occurrence of the first designation signal to establish a count. However, claim 48 states that the counter means is responsive to a signal indicative of a second designation signal not in "said set of designation signals" for resetting the count value. Given that "said set" from claim 47 did not include the first signal, then the second signal must equal the first signal and hence in contradiction to claim 47, the counter is reset after every occurrence of the first signal instead of counting each occurrence.

With respect to claim 49, the phrases "said address signal", "said signal", and "said strobe signal", all lack appropriate antecedent support; as well as it being unclear which claimed "said communication device" is being referred to.

With respect to claim 53, the phrase "the translation means" lacks appropriate antecedent support.

With respect to claim 54, first the phrase "the signals" lack appropriate antecedent support, and second, the disclosure fails to teach the claim language in which signals are generated by pushing for a short period any character key then pushing a selected key "on which a selected desired character appears for a predetermined long duration".

With respect to claim 55, it is unclear with respect to the phrase "said signals", which ones are being referred to. With respect to claim 56, the phrases "said first code word", and "said address signal", lack appropriate antecedent support; as well as, the phrase "relatively short duration" is vague.

Finally, with respect to claim 57, the claim language "said character to be transmitted sequentially chosen from a set of characters portrayed on a plurality of keys", has not been disclosed.

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION WAS LACKING

This ISA found multiple inventions as follows:

This application contains the following inventions or groups of inventions which are not so linked as to form a single inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-12, are drawn to a combined pager/cellular telephone apparatus having an activation means.

Group II, claim(s) 13, 14, 20-57, are drawn to a system for remote operation, i.e., there is no pager/cellular telephone

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US95/06881

details claimed. Instead, the claims indicate that the communication unit might comprise a telephone set, facsimile, PBX, etc.

Group III, claim(s) 15-19, are drawn to a remotely programmable device using touch tone signals.

Group IV, claim 58, is drawn to a generic claim, which claims everything within the figures.

The inventions listed as Groups I, II, III, and IV, do not relate to a single inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups II, III, and IV do not necessarily involve a cellular telephone/pager apparatus with means activation within the pager for activating the cellular telephone. Groups I, III, and IV, do not require the particulars of a system for remote operation of a device. Groups I, II, and IV, do not require the particulars of a remotely programmable device which is programmed via DTMF tones; and finally, Groups I, II, and III, do not include all of the disclosed inventions found within the figures as claimed in Group IV.