

[54] **PERSONAL COMMUNICATION SYSTEM TO SEND AND RECEIVE VOICE DATA POSITIONING INFORMATION**

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[*] Notice: This patent issued on a continued prosecution application filed under 37 CFR 1.53(d), and is subject to the twenty year patent term provisions of 35 U.S.C. 154(a)(2).

[21] Appl. No.: **08/879,955**

[22] Filed: **Jun. 20, 1997**

[51] **Int. Cl.**⁷ **G01C 15/00**

[52] **U.S. Cl.** **701/208**; 340/286.01; 340/988;
 340/995; 701/213; 701/300

[58] **Field of Search** 340/944, 945,
 340/961, 971, 979, 988, 989, 990, 995,
 286.01, 286.06; 342/352, 357, 457; 701/207,
 208, 209, 300, 213, 301; 455/456, 457,
 433, 437, 438, 439, 440, 459, 461

Primary Examiner—William A. Cuchlinski, Jr.

Assistant Examiner—Ed Pipala

Attorney, Agent, or Firm—Christie, Parker & Hale, LLP

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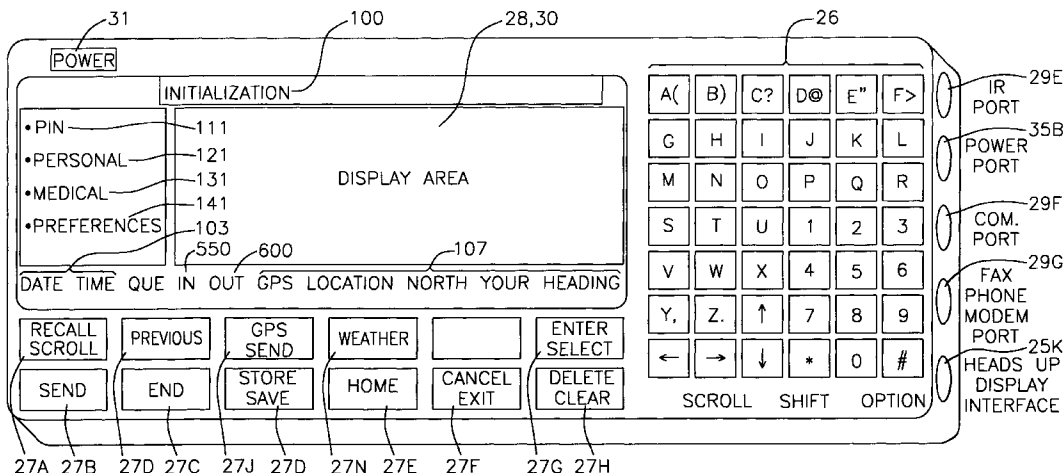
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[57] **ABSTRACT**

A location tagged data provision and display system. A personal communication device (PCD) with electromagnetic communication capability has a GPS receiver and a display. The PCD requests maps and location tagged data from data providers and other for display on the PCD. The data providers respond to requests by using searching and sorting schemes to interrogate data bases and then automatically transmitting data responsive to the requests to the requesting PCD.

42 Claims, 31 Drawing Sheets



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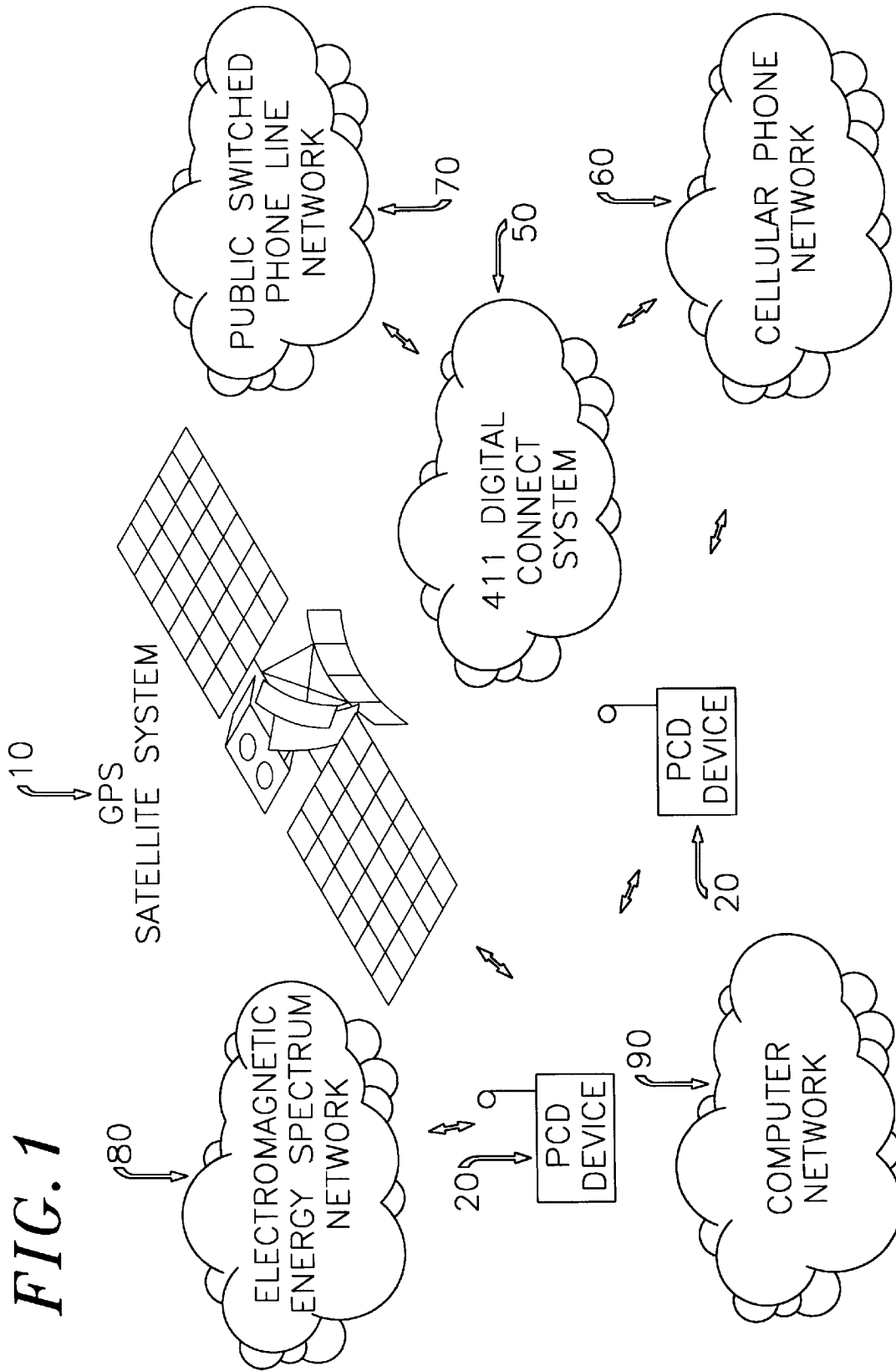


FIG. 2

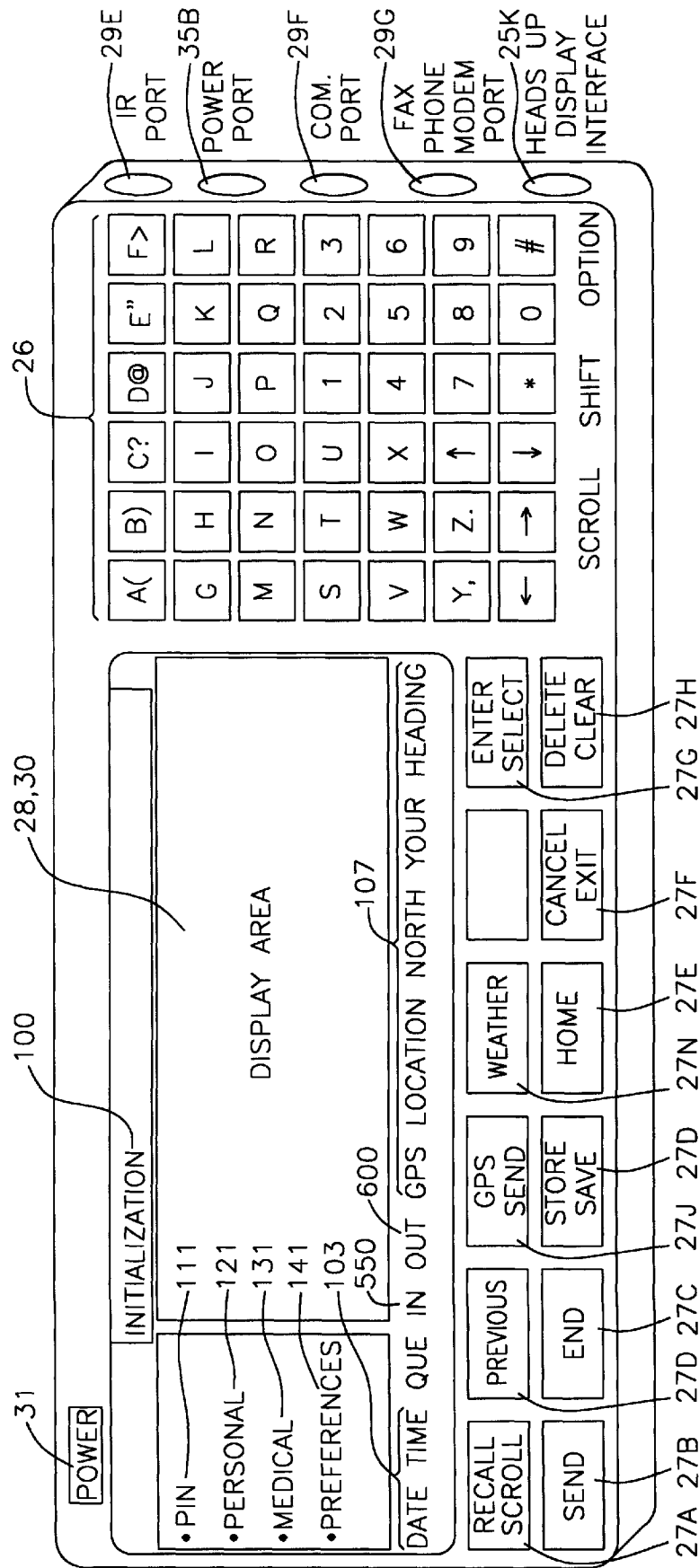
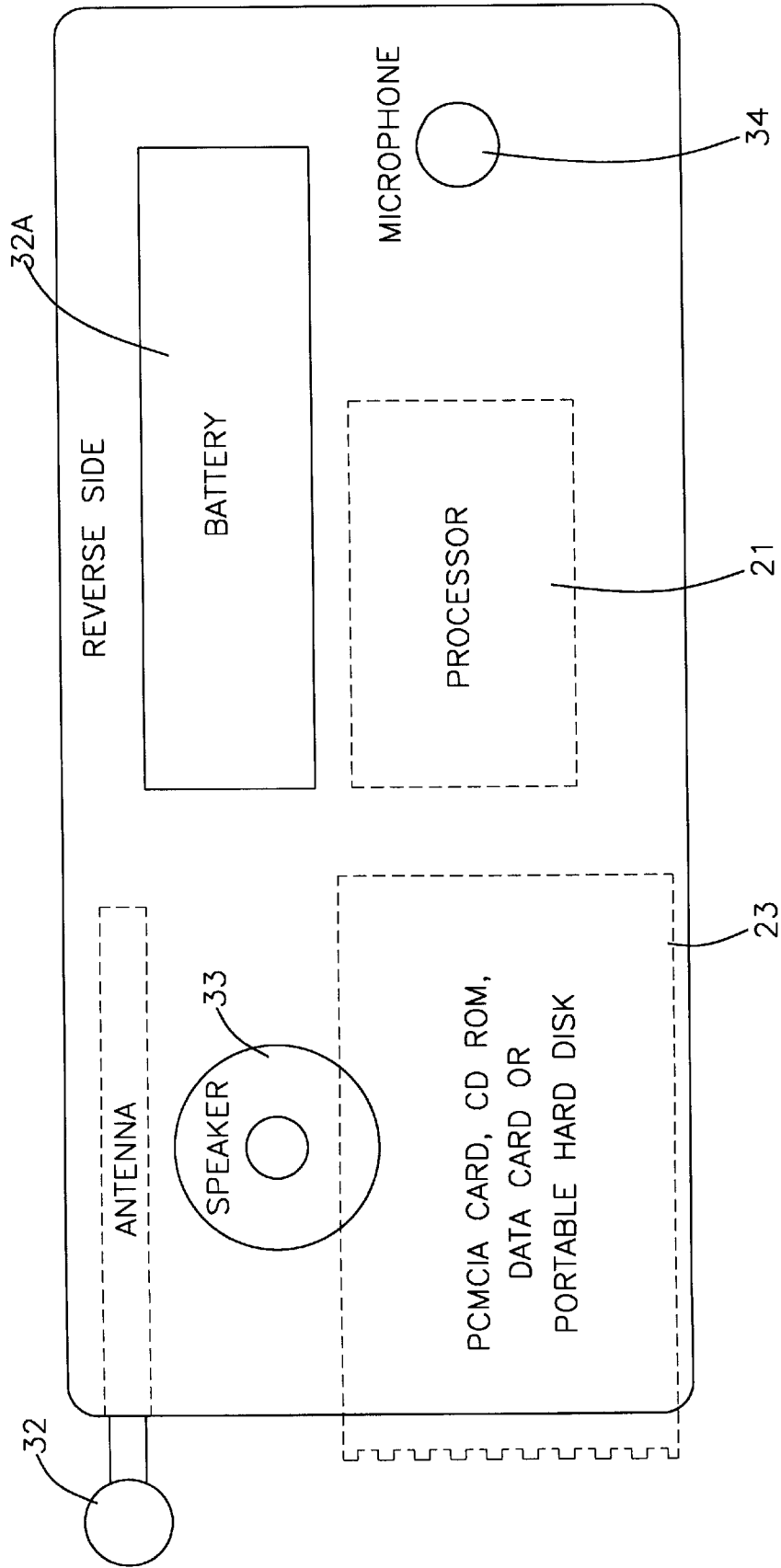


FIG. 3



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