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United States Patent [19]

Braitberg et al.

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[54] **METHOD AND APPARATUS FOR TRANSMISSION OF AND RECEIVING SIGNALS HAVING DIGITAL INFORMATION USING AN AIR LINK**

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[73] Assignee: **Cell Port Labs, Inc.**, Boulder, Colo.

[21] Appl. No.: **50,910**

[22] Filed: **Apr. 20, 1993**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 773,840, Oct. 9, 1991, Pat. No. 5,333,177.

[51] **Int. Cl.^{6}** **H04M 11/00**
[52] **U.S. Cl.** **379/58**; 455/33.1; 370/85.7; 370/85.13; 379/59
[58] **Field of Search** 379/58, 59, 63; 455/33.1, 84, 89, 90; 370/85.1, 85.2, 85.7, 85.13, 95.1, 95.3

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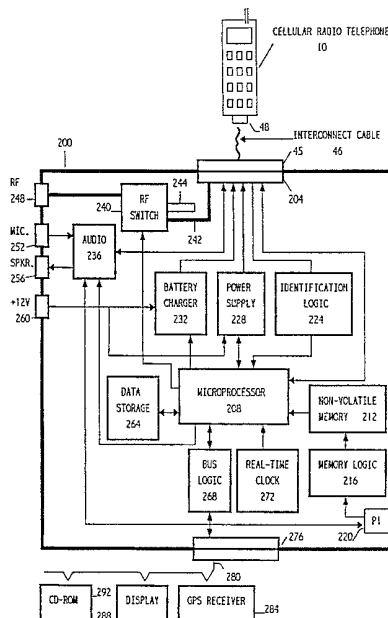
Primary Examiner—Dwayne D. Bost
Attorney, Agent, or Firm—Sheridan Ross & McIntosh

[57] **ABSTRACT**

A cellular telephone is interconnected to a control unit via a cable. The cable contains both appropriate interdisciplinary connections for attachment to the telephone at one end and to the control unit at the other end via a universal connector. At least one contact of the universal connector is capable of producing a signal coded to identify the type of cellular telephone attached to the connector at the other end. A decoder at the control unit identifies the type of phone as by table look-up and establishes appropriate interfacing operational functions at its universal connector to properly operate with the telephone. Accordingly, the control unit can function with any of a wide variety of cellular telephones having differently configured cable connections and cable connector disciplines of contact assignments. In addition, the control unit may include circuitry for controlling a number of peripheral devices which are operable to send and receive digital data through the cellular phone unit to and from remote devices via radio frequency signals.
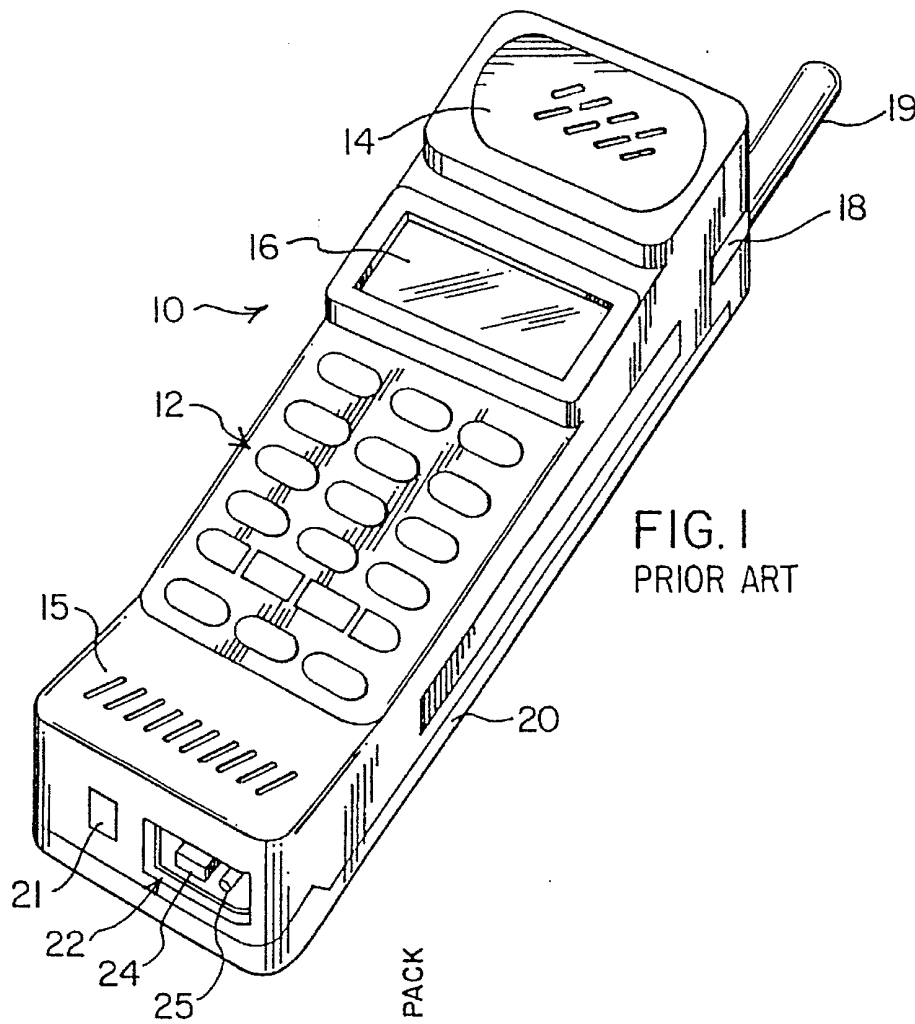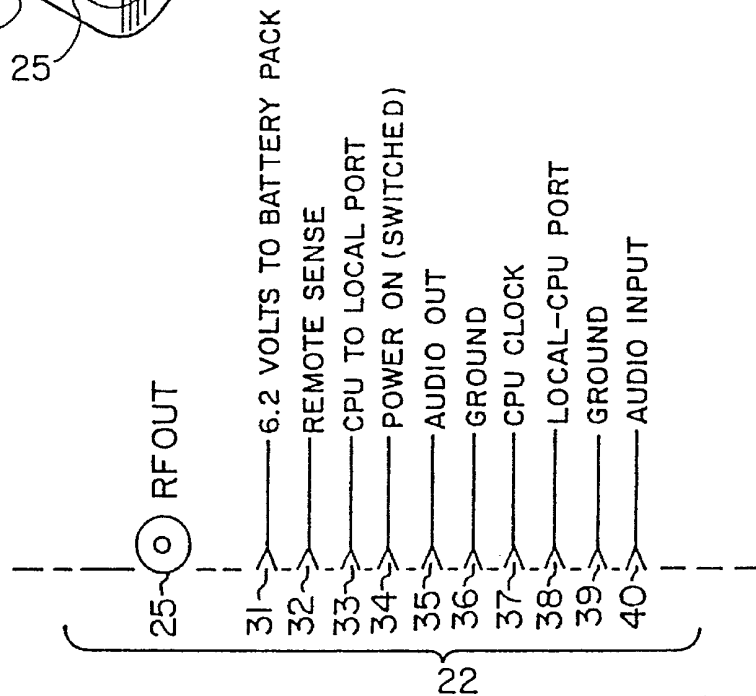
29 Claims, 9 Drawing Sheets
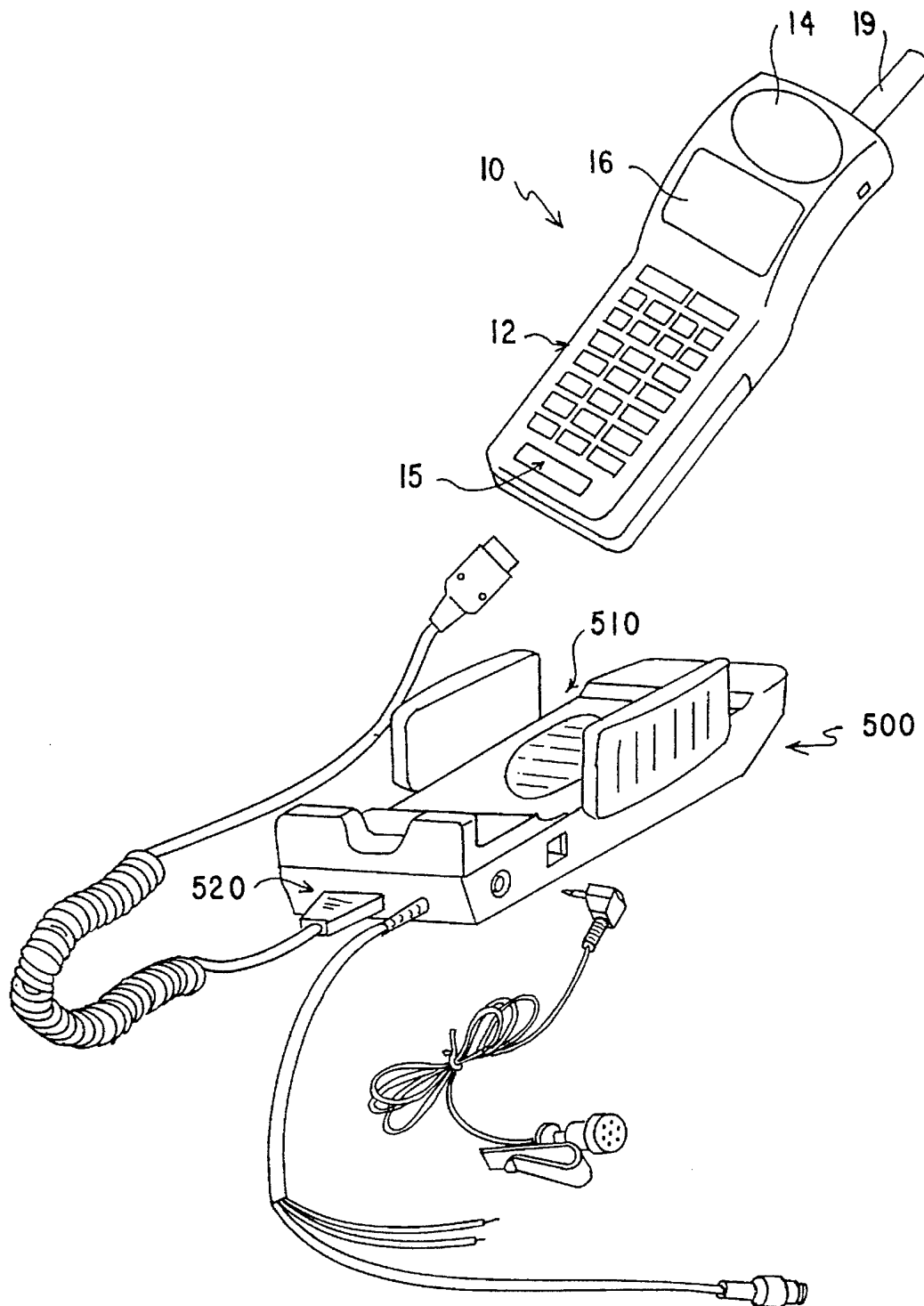
FIG. 1
PRIOR ART
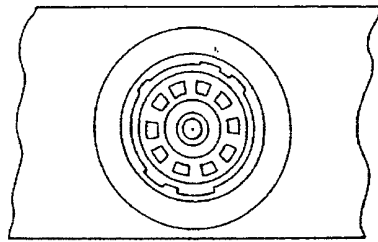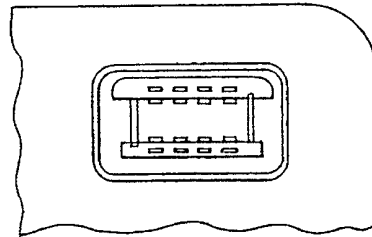

FIG. 3   PRIOR ART

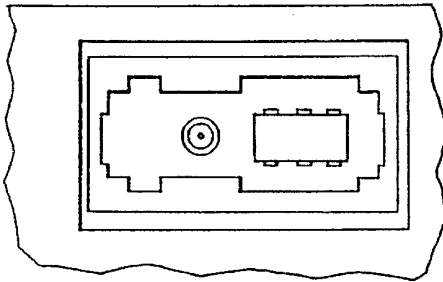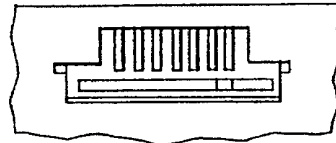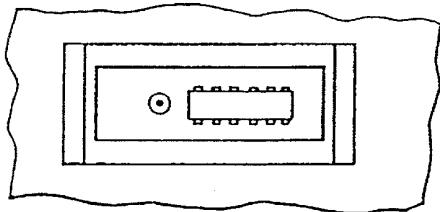FIG. 1A *PRIOR ART*

FIG. 2A
PRIOR ART

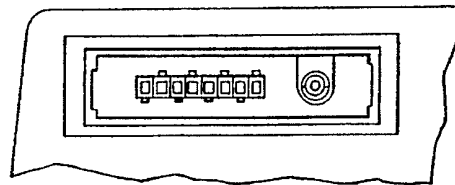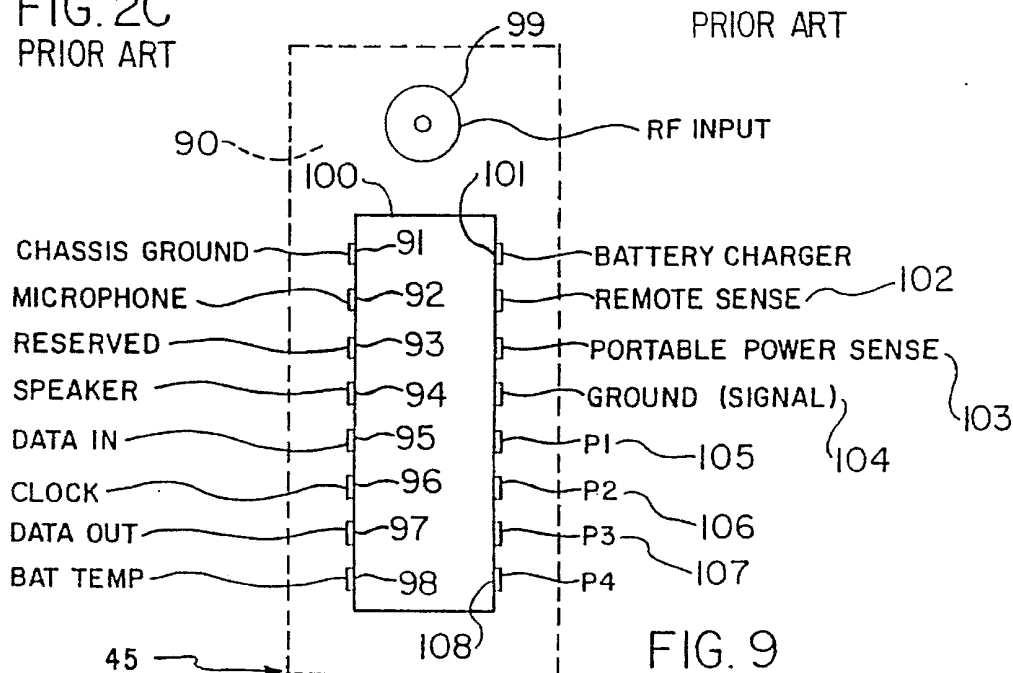FIG. 2D
PRIOR ART

FIG. 2B
PRIOR ART

FIG. 2E
PRIOR ART

FIG. 2C
PRIOR ART

FIG. 2F
PRIOR ART
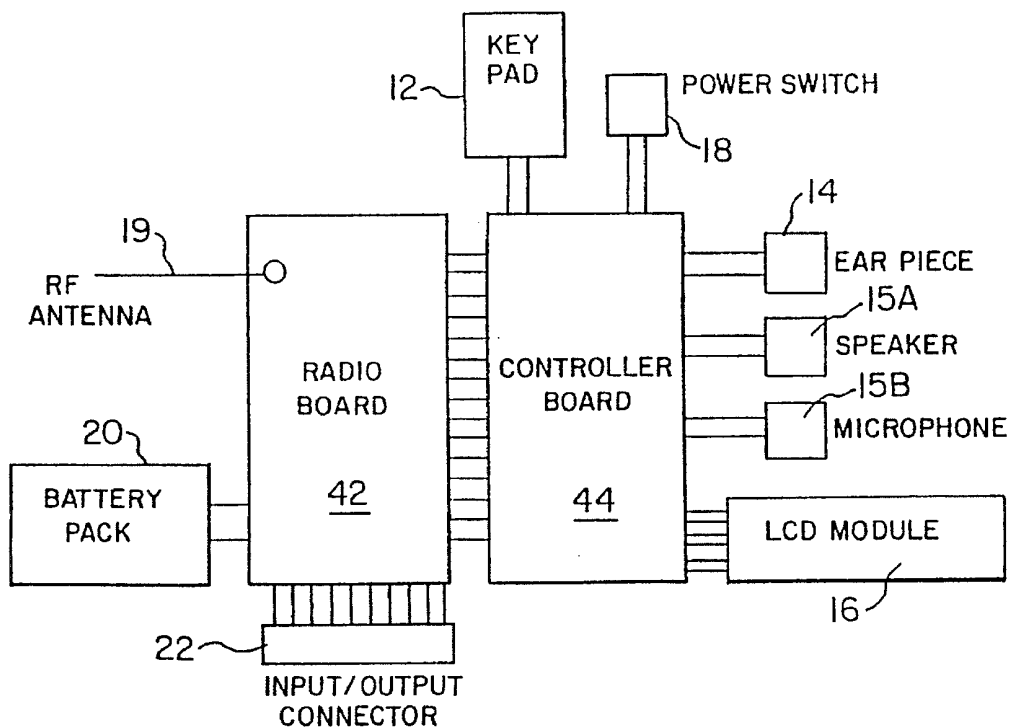
99
RF INPUT
90
100
101
CHASSIS GROUND — 91 — BATTERY CHARGER
MICROPHONE — 92 — REMOTE SENSE — 102
RESERVED — 93 — PORTABLE POWER SENSE — 103
SPEAKER — 94 — GROUND (SIGNAL)
DATA IN — 95 — P1 — 105 — 104
CLOCK — 96 — P2 — 106
DATA OUT — 97 — P3 — 107
BAT TEMP — 98 — P4
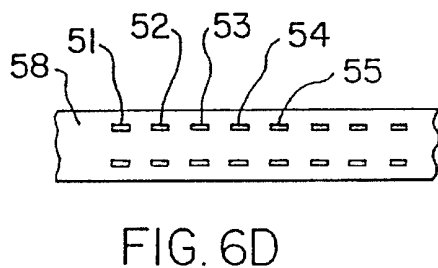45 — 108

FIG. 9

FIG. 5
PRIOR ART

FIG. 6A

FIG. 6C

FIG. 6B

FIG. 6D

DOCKET ALARM
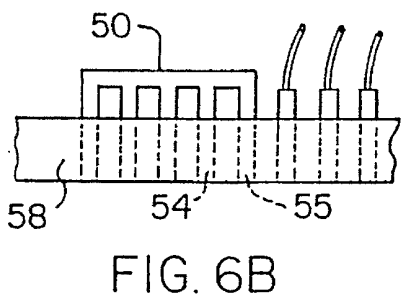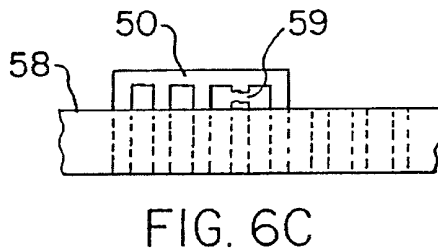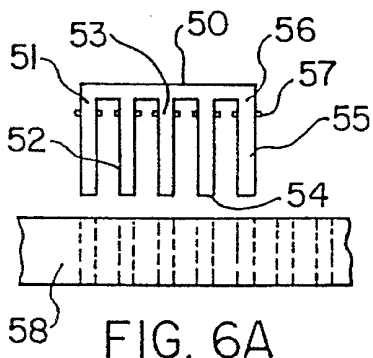
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