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Crandall et al.

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[54] ENCODER/DECODER FOR EMERGENCY ALERT SYSTEM

[75] Inventors: Kenneth Crandall, Redwood City; Kenneth Fesler, Stanford, both of Calif.

[73] Assignee: TFT, Inc., Santa Clara, Calif.

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[51] Int. Cl.⁶ H04L 27/10

[52] U.S. Cl. 375/272; 455/404; 455/521

[58] Field of Search 375/219, 222, 375/272, 303, 334, 242; 340/870.09, 901, 870, 945; 329/300, 315; 332/100, 118, 117; 348/14; 455/404, 521, 527

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Primary Examiner—Wellington Chin

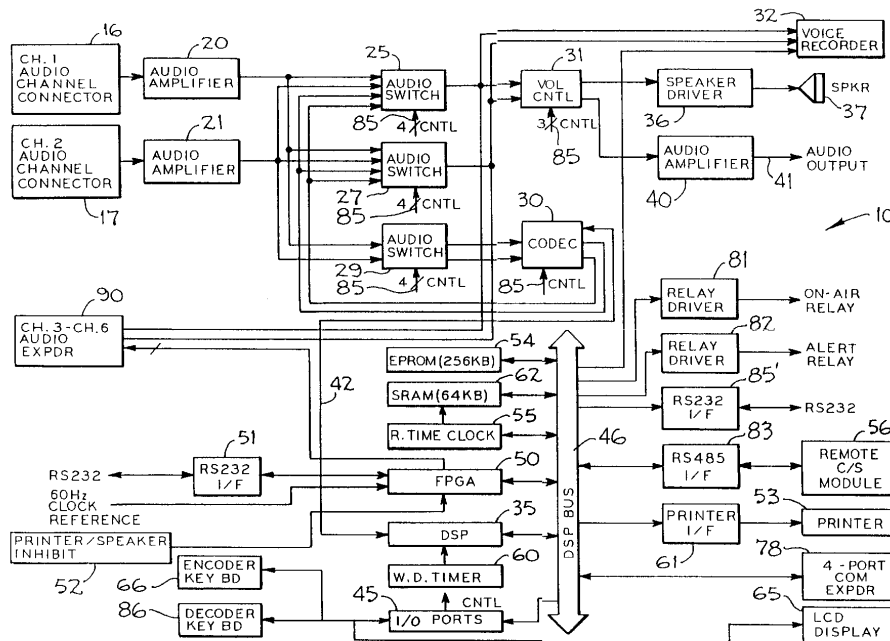
Assistant Examiner—Congvan Tran

Attorney, Agent, or Firm—Jack M. Wiseman

[57] ABSTRACT

An encoder/decoder for an emergency alert system to enable broadcasters to receive, store, re-broadcast and originate emergency alert messages. Multiple emergency alert signals are received by the encoder/decoder. A digital signal processor of the encoder/decoder scans the reception of the multiple emergency alert messages to determine the presence of an incoming emergency alert signal. The digital signal processor provides digital implementation of a frequency shift key modulation and a frequency shift key demodulation to encode and decode emergency alert messages. Additionally, the digital signal processor functions as a central processing unit to control input/output ports over a digital signal processor bus for performing all encoding and decoding functions and to control all encoding and decoding functions.

21 Claims, 8 Drawing Sheets



IBM EX. 1012

FIG-1

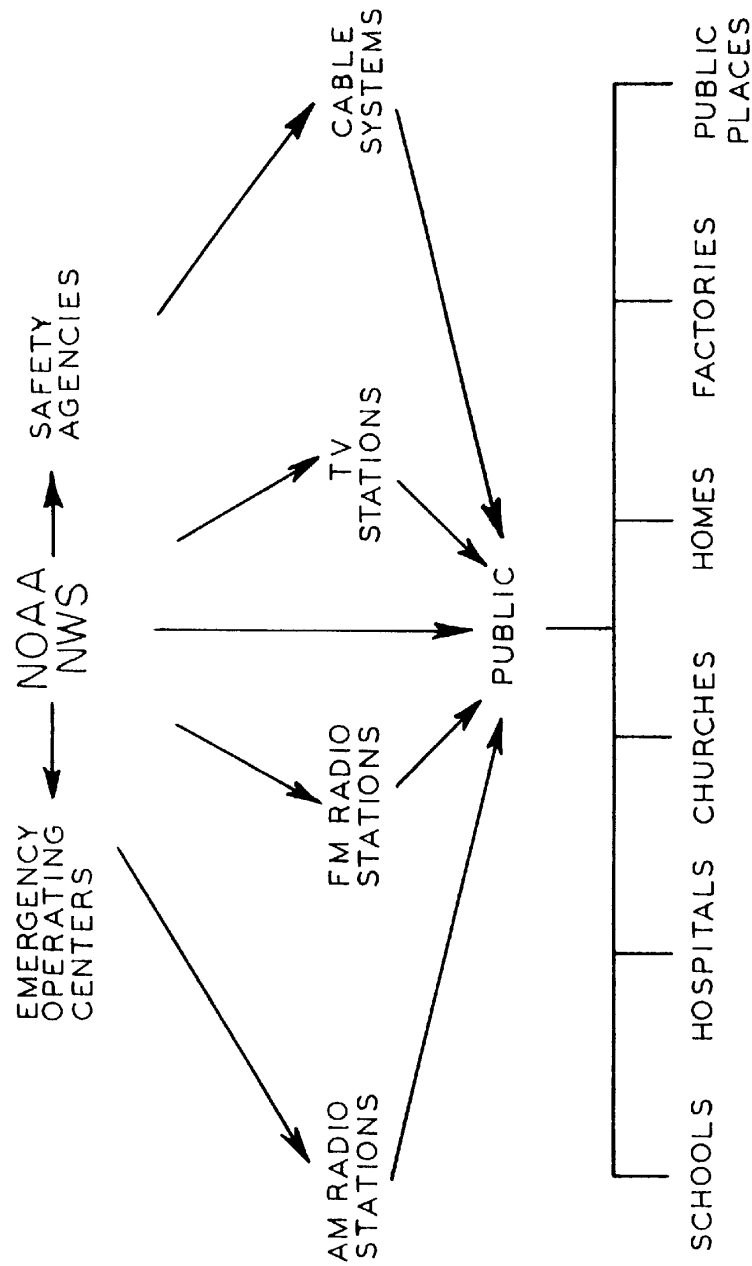


FIG. 2

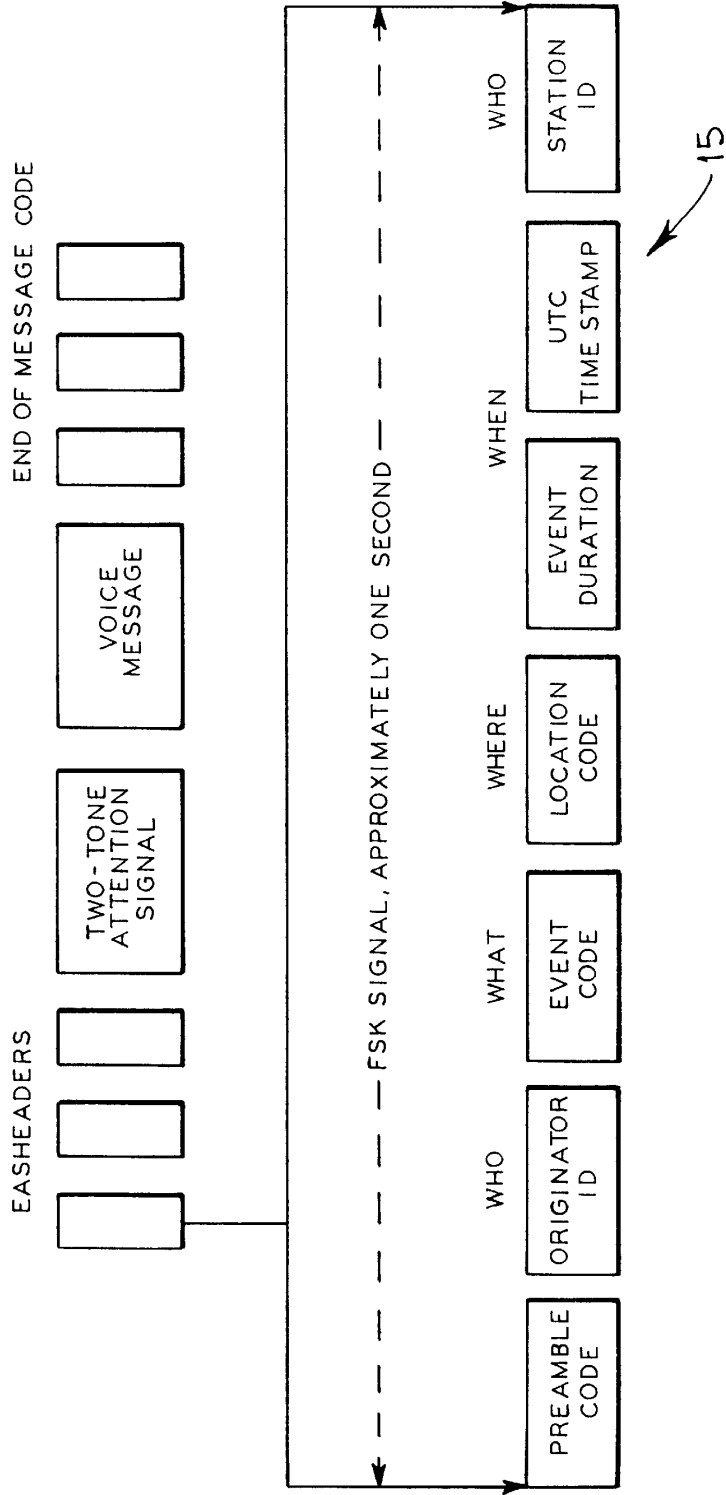


Fig. 3A

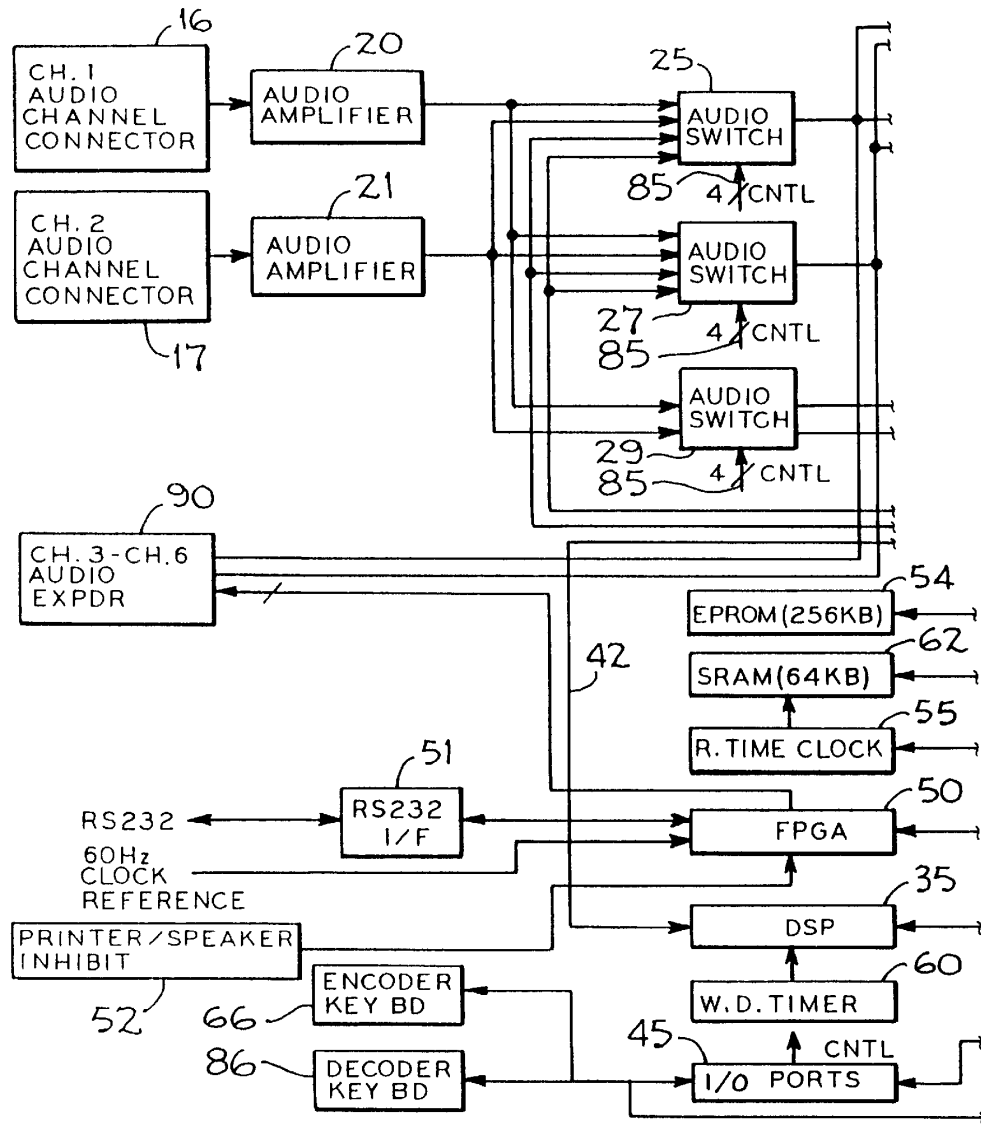
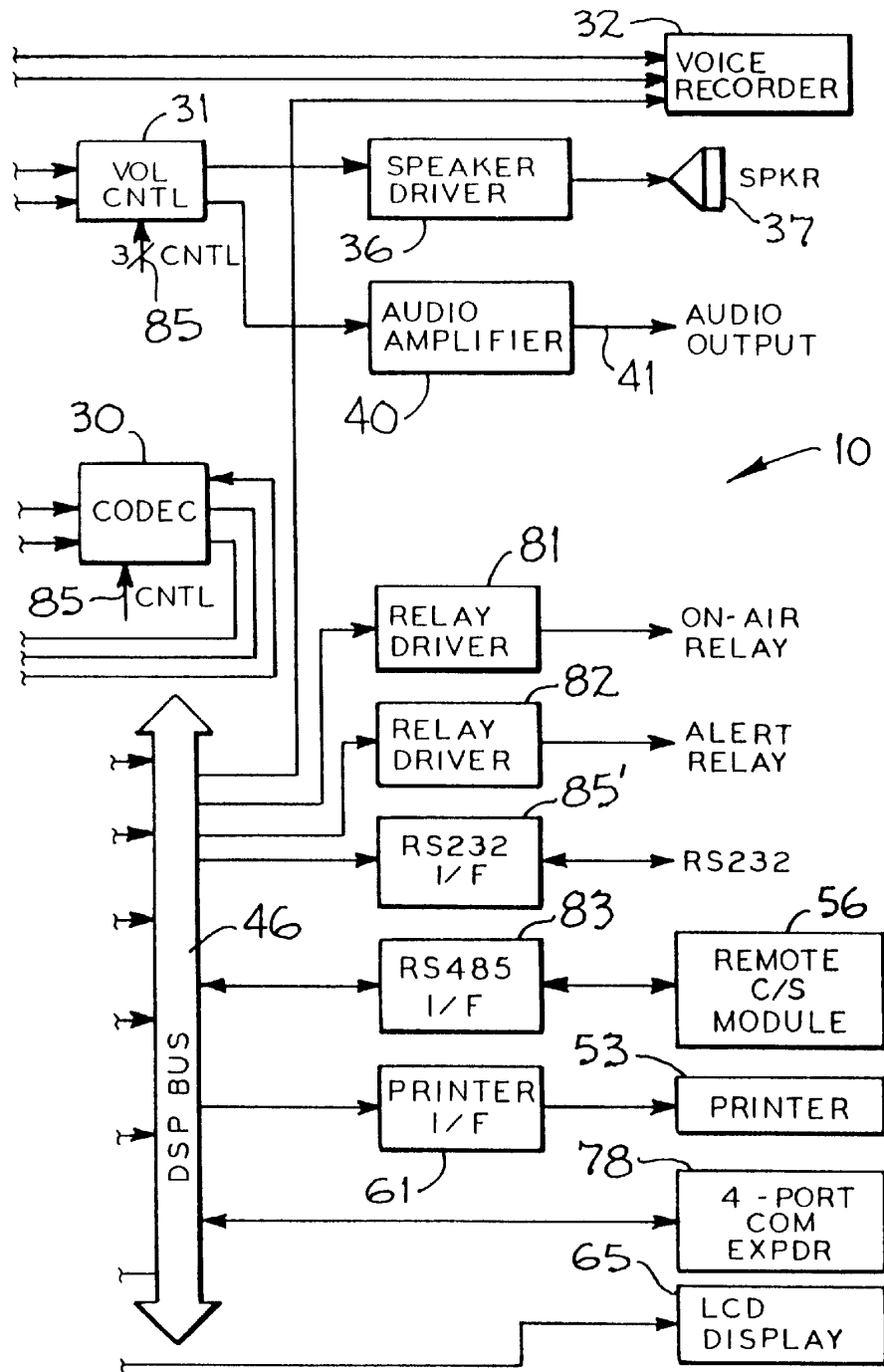


FIG. 3B



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