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Futamase et al.

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(54) **PORTABLE TELEPHONY APPARATUS WITH MUSIC TONE GENERATOR**

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(52) **U.S. Cl.** **84/622**; 84/645; 434/387 A

(58) **Field of Search** 434/307 A; 84/609, 84/615, 622, 645

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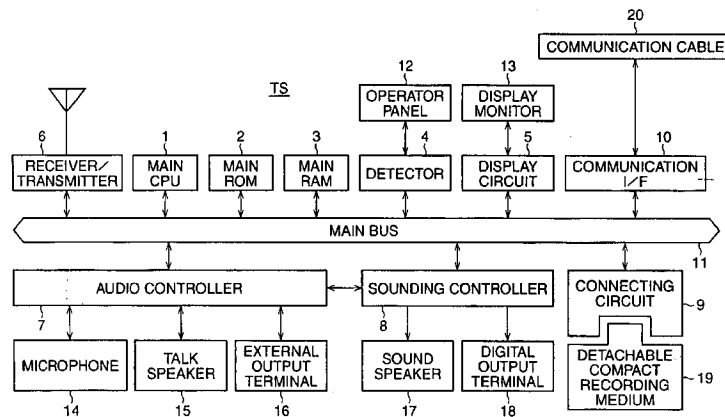
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(57) **ABSTRACT**

A sound control apparatus is provided in a portable terminal for sounding a music tone in association with operation of the portable terminal, which is controlled by a main CPU. In the sound control apparatus, a memory memorizes music information representing a music tone and configuration information associated to a timbre of the music tone. An information acquiring section acquires the music information and the configuration information from the memory. A tone generating section is configured by the acquired configuration information to create a timbre specified by the configuration information. The tone generating section operates according to the acquired music information to generate the music tone being represented by the music information and having the specified timbre. A dedicated CPU is provided separately from the main CPU for controlling the memory, the information acquiring section and the tone generating section.

78 Claims, 26 Drawing Sheets



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FIG. 1

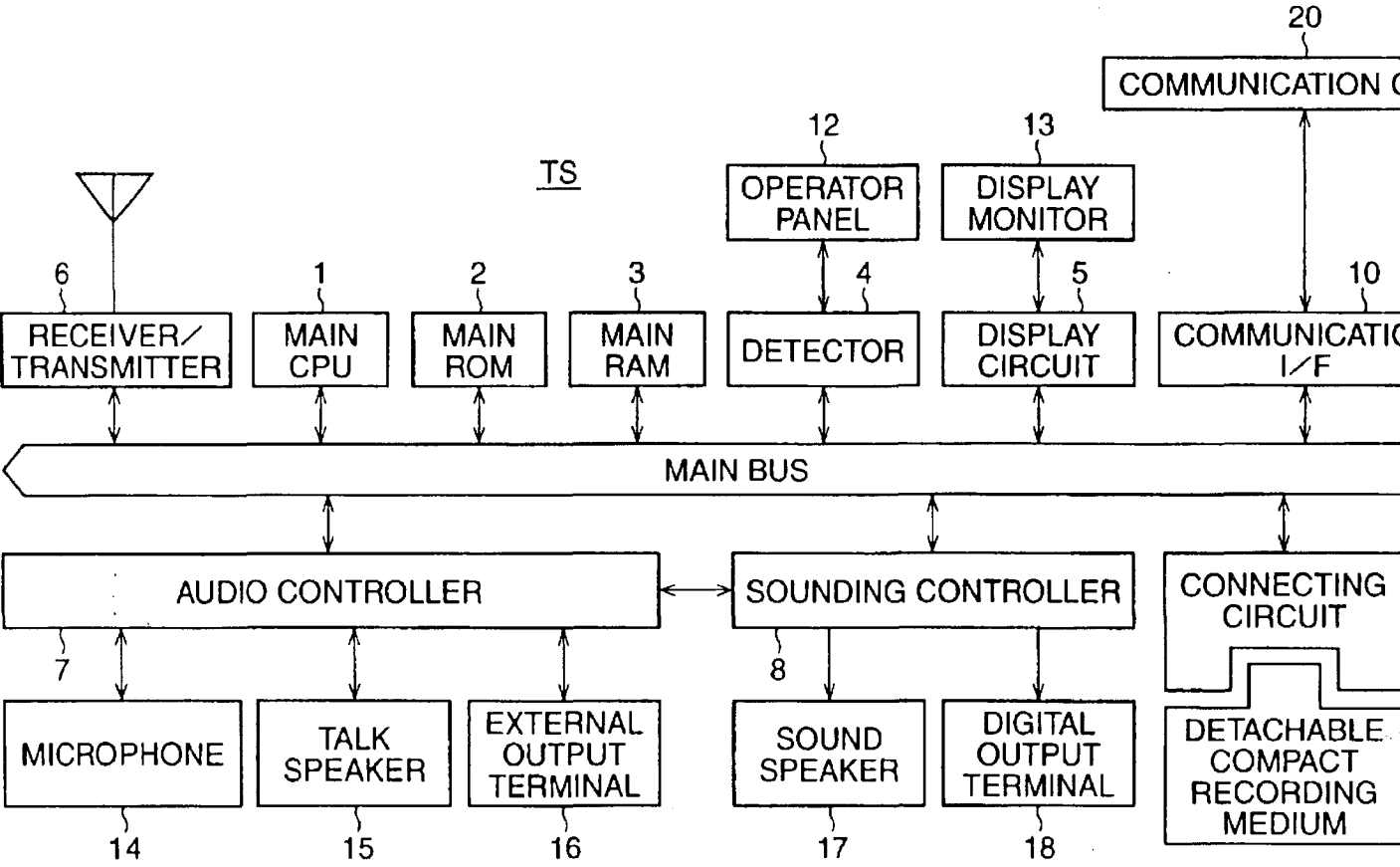


FIG. 2

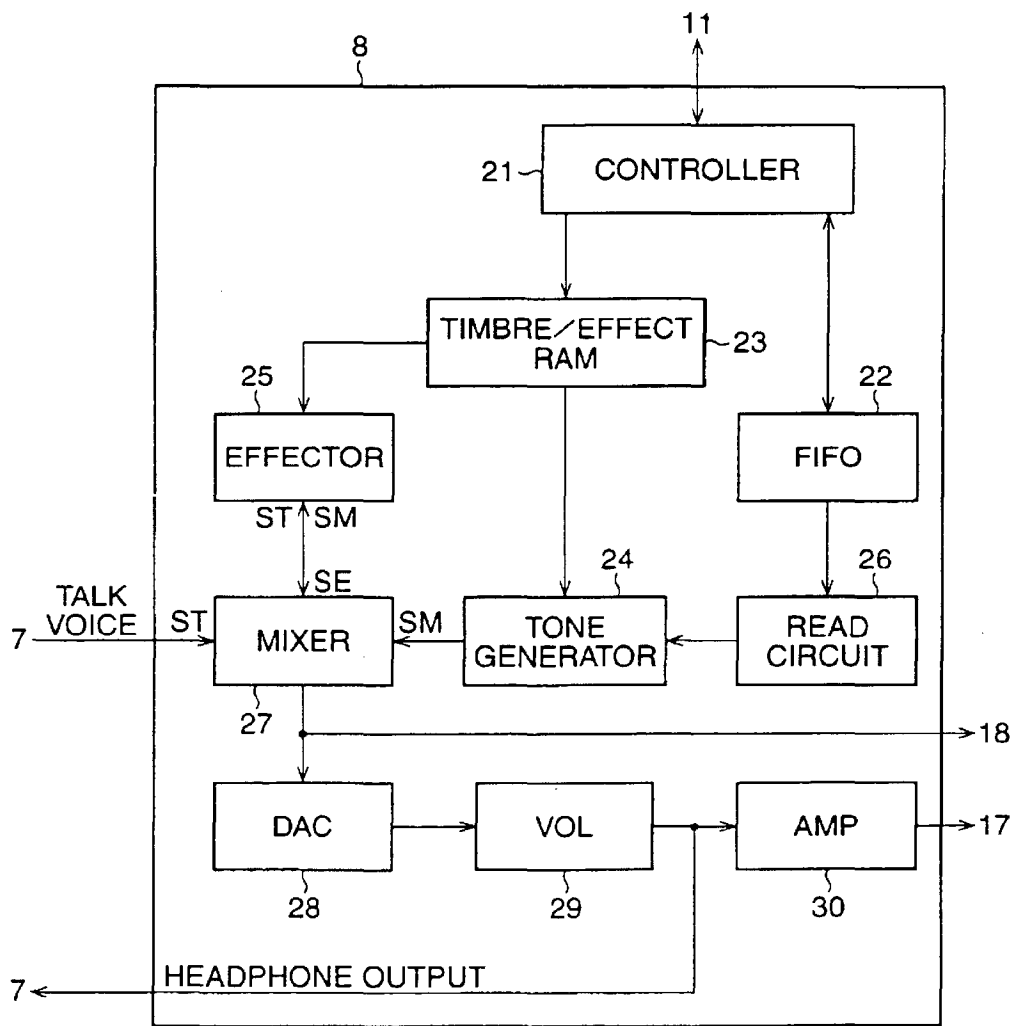
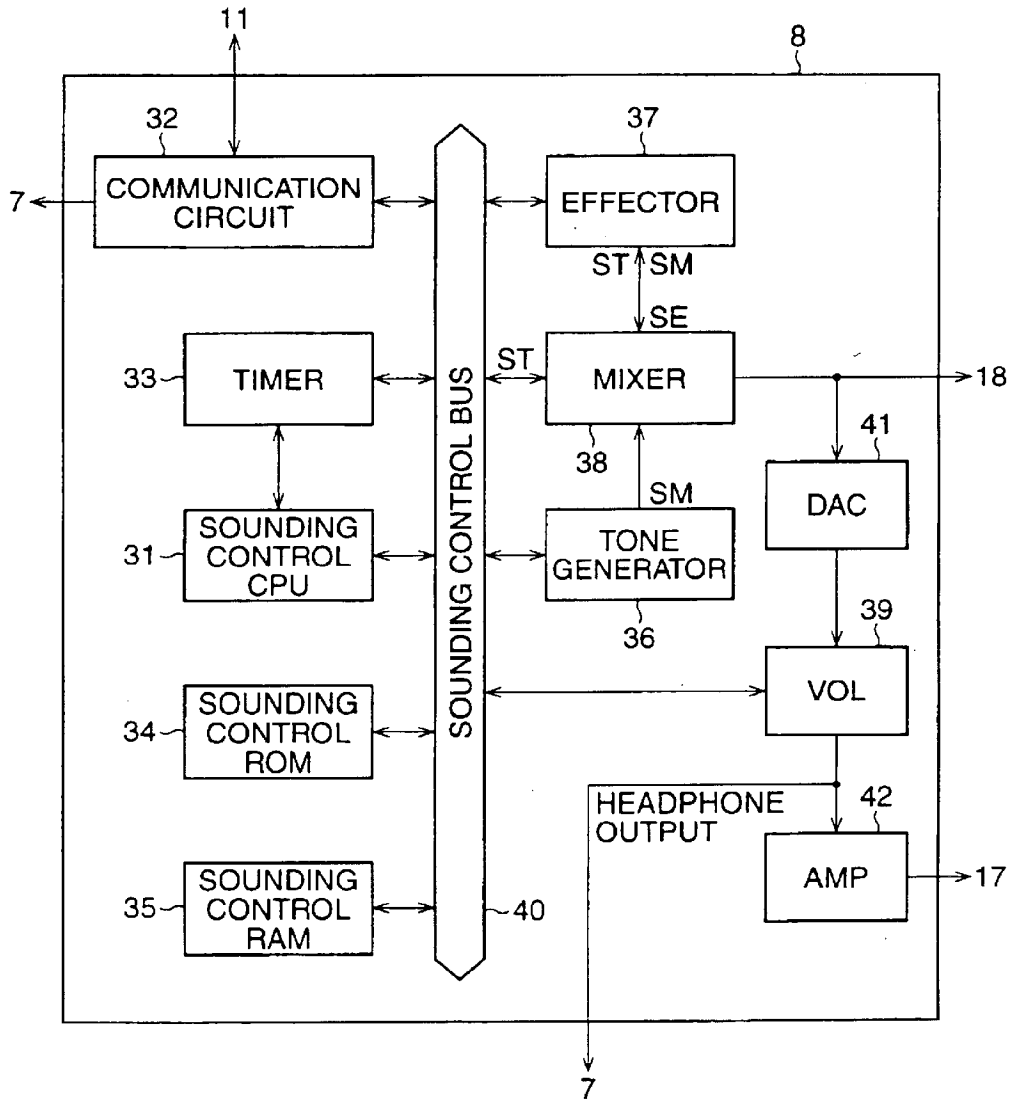


FIG. 3



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