

ABSTRACT:

MUSICAL TONE GENERATING APPARATUS

A musical tone generating apparatus utilizing a data compression method is disclosed. A musical tone is sampled and is converted into waveform data $(S(n))$. These waveform data $(S(n))$ are compressed into compressed data $(C(n))$ by a linear predictive coding method and further by a differential quantization method. The number of bits of each of the compressed data $(C(n))$ is thus significantly smaller than that of the waveform data $(S(n))$. Thereafter, a memory (2) stores the thus compressed data corresponding to an attack portion of the tone and a selected part of a sustain portion of the tone. Hence, it is possible to remarkably reduce the memory storage. When generating a musical tone, the memory (2) reads out the compressed data $(C(n))$ of the attack portion and thereafter repeatedly reads out the compressed data of the selected part. The read-out compressed data are sequentially decoded into the original digital data. Thus, the whole waveform of the musical tone is reproduced.

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