



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.