

Title (en)
PC AUDIO SYSTEM WITH FREQUENCY COMPENSATED WAVETABLE DATA

Title (de)
AUDIOSYSTEM FÜR PC MIT FREQUENZKOMPENSIERTEN WELLENFORMDATEN

Title (fr)
SYSTEME AUDIO DE MICRO-ORDINATEUR A COMPENSATION EN FREQUENCE DES DONNEES DE TABLEAUX D'ONDES

Publication
EP 0882286 B1 20000621 (EN)

Application
EP 97907795 A 19970221

Priority
• US 9702811 W 19970221
• US 60455896 A 19960221

Abstract (en)
[origin: WO9731363A1] The PC audio circuit (10) described interfaces with and provides audio enhancement to a host personal computer of the type including a central processor, system memory and a system bus. The PC audio circuit (10) includes a digital signal processor (DSP) (16) for processing wavetable data and generating digital audio signals for a plurality of voices. The wavetable data is stored in the host computer's system memory and transferred in portions, as needed by the DSP (16) to a smaller, low-cost cache memory (22) included with the PC audio circuit (10). The DSP (16) processes several frames of data samples for an active voice before processing another voice. Processing in this manner alleviates concerns about the percentage use of system bus bandwidth and the maximum allowable system bus latency. These concerns are further alleviated by deriving frequency compensated wavetable data and storing it in system memory to be retrieved by the DSP (16) for generating digital audio signals having high frequency ratios. Digital audio signals generated for each active voice are accumulated in cache memory (22). When the digital audio signals for all active voices have been accumulated, the accumulated data is transmitted from the cache memory (22) to an external digital-to-analog converter. Since wavetable data is stored in system memory, the cache memory (22) is smaller and less expensive than the local memory in prior art PC audio circuits. Thus, the described PC audio circuit (10) has a lower overall cost.

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G10H 7/02

IPC 8 full level
G10H 7/00 (2006.01); **G10H 7/02** (2006.01)

CPC (source: EP KR)
G10H 7/004 (2013.01 - EP); **G10H 7/02** (2013.01 - EP KR); **G10H 2230/031** (2013.01 - EP); **G10H 2240/275** (2013.01 - EP)

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