

Title (en)
PC AUDIO SYSTEM WITH WAVETABLE CACHE

Title (de)
PC KLANGSYSTEM MIT WELLENFORMSPEICHER

Title (fr)
SYSTEME AUDIO POUR MICRO-ORDINATEUR AVEK ANTEMEMOIRE A TABLEAU DE SIGNAUX ANALOGIQUES

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EP 0801784 A1 19971022 (EN)

Application
EP 95939769 A 19951102

Priority

- US 9514347 W 19951102
- US 35433794 A 19941212
- US 35675394 A 19941215
- US 36348594 A 19941223
- US 51108595 A 19950804
- US 51112495 A 19950804
- US 51142195 A 19950804
- US 51142795 A 19950804

Abstract (en)
[origin: WO9618995A1] The PC audio circuit 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 includes a digital signal processor (DSP) 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, to a smaller, low-cost cache memory included with the PC audio circuit. The DSP processes several frames of data samples for an active voice before processing another voice. Processing in this manner reduces the percentage use of system bus bandwidth and alleviates concerns about the maximum allowable system bus latency. Digital audio signals generated for each active voice are accumulated in cache memory. When the digital audio signals for all active voices have been accumulated, the accumulated data is transmitted from the cache memory to an external digital-to-analog converter. Since wavetable data is stored in system memory, the cache memory is smaller and less expensive than the local memory in prior art PC audio circuits. Thus, the described PC audio circuit has a lower overall cost.

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G10H 7/02; G10H 1/18

IPC 8 full level
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