

E0C33 Family SOUND33 Middleware

Sound playing middleware

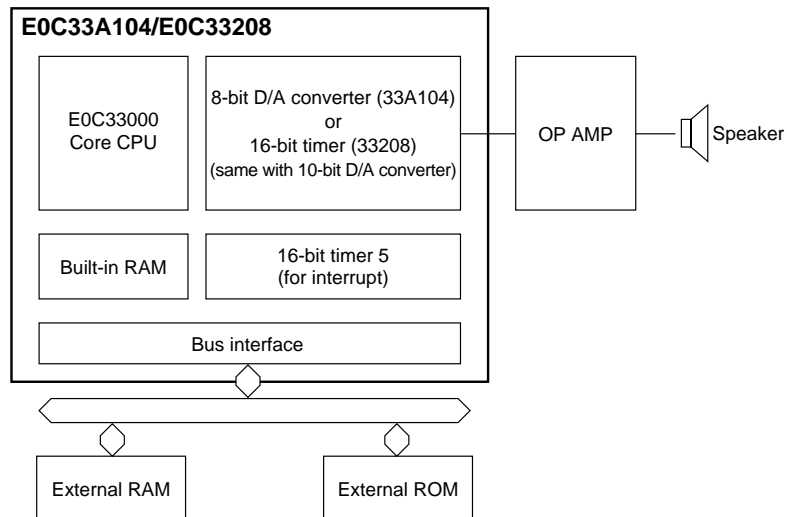
Preliminary

- Sound playing middleware for the E0C33 Family
- Supports musical instruments with the wave table method
- 16 ch/20MHz, 32 ch/40MHz playable in real time
- Supports E0C33A104 and E0C33208 chips

■ FEATURES

- Middleware for the E0C33 Family is provided as a linkable library.
- Outputs 8kHz sounds using the VOX33 output routines. Allows use of the VOX33 library with the SOUND33 library.
- Compact data and library size (sound data: 3 bytes per note, instrument data: 4K to 8K bytes per instrument) that needs only a small ROM area.
- Suitable for data banks, PDAs, toys with a sound function.

■ HARDWARE CONFIGURATION



■ RESOURCE

- ROM size : Sound library = approx. 3K bytes, instrument = 4K to 8K bytes, sound data = approx. 3 bytes per note
- RAM size : Approx. 3K bytes for library use, and 80 bytes for each play channel.
- Timer : 16-bit timer 5 is used for generating an interrupt
- Sound outputs : D/A converter ch. 0 is used in the E0C33A104, 16-bit timer 1 is used in the E0C33208.

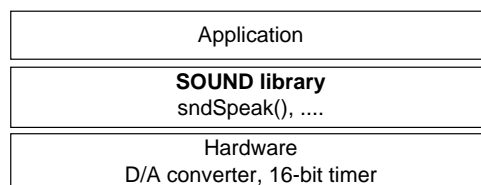
■ INSTRUMENTS SUPPORTED

Piano, Organ, Violin, Trumpet and other instruments (TBD)

■ SOFTWARE CONFIGURATION

● SOUND Library

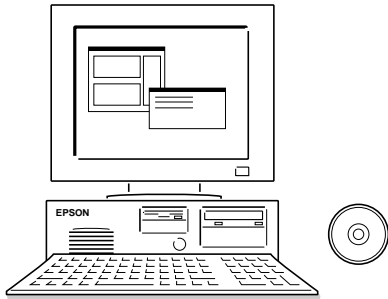
Libraries with sound subroutines that are called from the user's application.



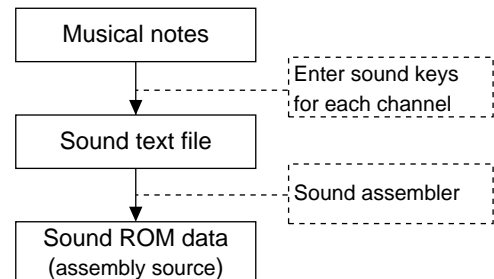
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● SOUND Tool

This tool creates sound ROM data.
It can be used with Windows 95/98/NT4.0.

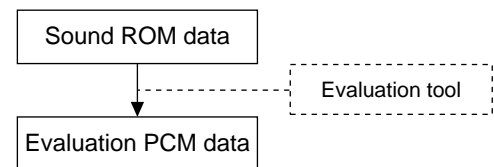
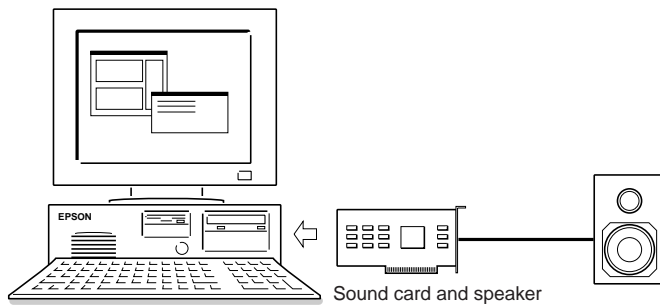


Flow in PC (Example)



● SOUND Evaluation Tool

This tool is for evaluating sound data on a PC.
It can be used with Windows 95/98/NT4.0.



* This middleware is only available with the IC (E0C33 Family).
This specification may change without notice.

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