

Apple II Technical Notes



Developer Technical Support

Apple IIGS

#9: IIGS Sound Expansion Connector: Analog Input/Output Impedances

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This Technical Note discusses the impedances of the analog signal pins on the IIGS sound expansion connector since an interface to this connector must take the impedance of the pins into account to function properly.

The analog output impedance of pin 3 depends upon the characteristics of the 5503 sound synthesis chip in any particular IIGS machine. Across systems, this impedance may range from 4.5 K Ω to 9 K Ω .

Pin 1, the A/D input, presents a dynamic load to the source, drawing at 10 K Ω for approximately 500 ns during every sample period. It is reasonable, however, to treat the input pin as if it presents a continuous load of 10 K Ω without compromising the interface or the fidelity of the input sample.

Consult the *Apple IIGS Hardware Reference* for further technical information about the Ensoniq 5503 sound synthesis chip used in the IIGS.

Further Reference

- *Apple IIGS Hardware Reference*