# Tech Info Library

## AV Technologies: (Centris 660AV & Quadra 840AV) Sound (7/93)

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TOPIC -------------------------------------------------------------

What are the AV Technologies sound capabilities in the Centris 660AV
and Quadra 840AV?

DISCUSSION --------------------------------------------------------

In addition to the on-board DSP (Digital Signal Processor) chip, the
Macintosh Centris 660AV and Quadra 840AV boast a new Custom chip, the
Singer ASIC (Apple Single Integrated Circuit).

The Singer ASIC is a new 16-bit stereo coder/decoder (CODEC), used to
support very high quality stereo sound input and output. Singer conforms
to the IT&T ASCO 2300 Audio-Stereo CODEC Spec.

The implementation is flexible and supports sound digitization rates
from 7.2 KHz to 48 KHz. Digitized sound is transmitted through the DMA
(Direct Memory Access) controller and is available at the DAV (Digital
Audio Video) connector for additional manipulation and processing tasks.

The DSP handles sound processing in addition to other functions such as
sample rate conversions, and MACE (Macintosh Audio Compression and
Expansion) compression/decompression. As on previous Quadra and Centris
models, an audio input pin is available on the logic board that permits
direct play through of CD audio coming off the analog output connector on
an internal CD-ROM drive.

Both the Quadra 840AV and Centris 660AV contain an internal speaker
that automatically mixes audio and system signals. A high quality
speech-capable microphone is included with all systems in the USA only.
(The microphone is available as a separate item in Europe and
Pacific markets.)

The Sound control panel has been improved in order to support the new

sound capabilities of the Quadra 840AV and Centris 660AV. The Sound control panel now has an integrated pull down menu that controls alert sounds, sound in source selection, and sound out options.

For further information on the DSP chip, please search by "DSP" in the Tech Info Library.

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