

EEG Brainwave Activity Analysis

Design Note #24

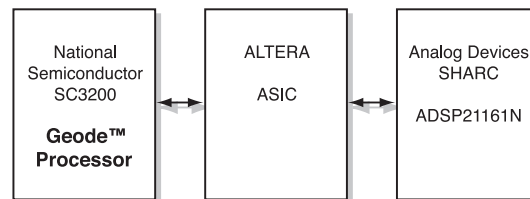


Orchid Technologies' product development brain power assists doctors and operating room staff everyday.

Orchid Technologies was selected by Physiometrix Corporation to design their newest operating room electroencephalography (EEG) platform. Real-time capture, analysis, and display of multi-channel EEG data is required to provide anesthesiologists with invaluable real-time information.

National Semiconductor Geode™ SC3200 Processor

Embedded x86 performance in a highly-integrated, low power package is achieved with National's SC3200 processor. The capabilities of the Geode processor brings a wealth of existing x86 software to bear thereby easing the end-user GUI application development.



Analog Devices Sharc DSP Architecture

Incoming raw EEG data is processed by an Analog Devices SHARC ADSP21161. Using Altera ASIC devices, Orchid crafted a unique, low-cost interface between the SHARC and National's new Geode SC3200 x86 compatible processor.

General Software BIOS

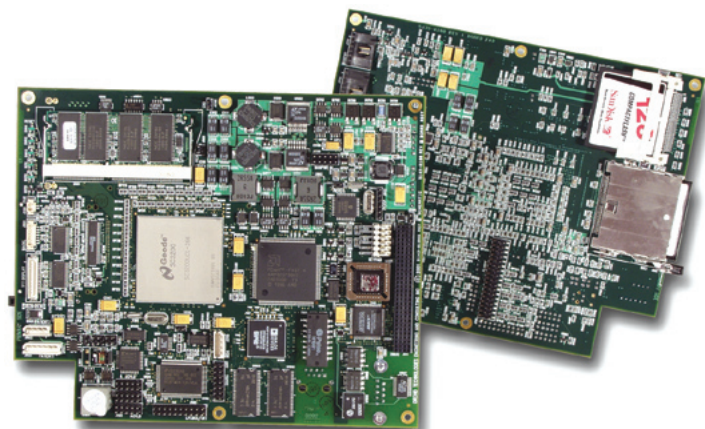
Superior product performance and rapid time-to-market are achieved using the robust and proven General Software Embedded BIOS 2000.

Microchip System Supervisor

Lithium Battery Management, Power On/Off control, alarm supervision, and smart lithium battery pack management are functions handled by custom Orchid designed PIC16F874 based supervisor hardware and firmware.

Technology in Combination

Combining solutions from Altera, Analog Devices, General Software, Microchip and National Semiconductor is what Orchid is all about. Call Orchid today to design a technological power house for you too.



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Custom Engineering From Concept to Production

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