



Multi channel drug discovery through fluoroscopic testing is made possible at low cost by high sensitivity transconductance amplifiers from Orchid Technologies.



“Pico watt light levels make transconductance amplifier design elusive. Orchid’s elegant approach married high density, high sensitivity, and low cost into a highly manufacturable package. Perfect!”

- Vice President R&D
- Advanced Research



**ORCHID TECHNOLOGIES
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Fluoroscopic Drug Discovery

The detection of pico watt fluoroscopic light using low cost pin photo diodes makes it possible to scale up discrete channel count. Orchid performed the design of a scalable, extremely low noise, high sensitivity, 24 bit transconductance amplifier. Advanced features such as pico amp sensitivity, auto-zero functionality, temperature compensation and microprocessor control make this eight channel transconductance amplifier truly unique.

Network Communications Architecture

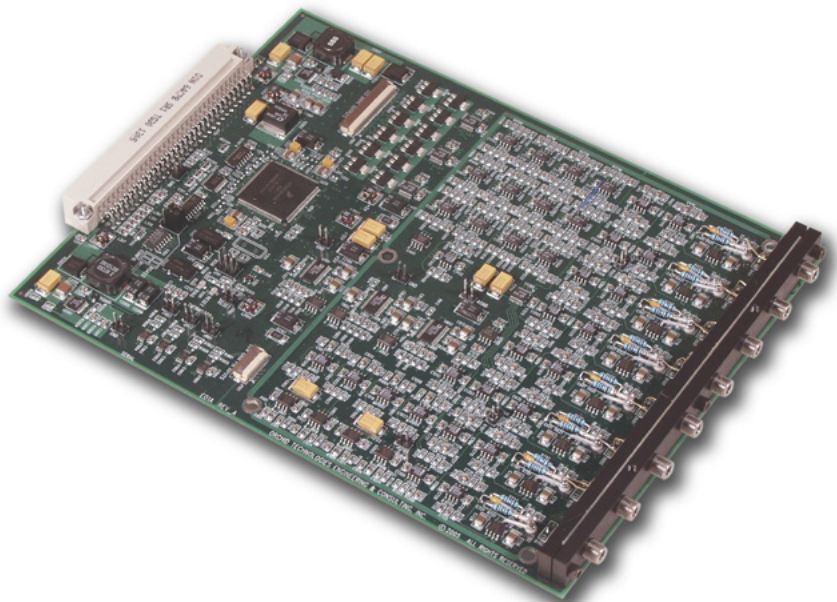
Microprocessor control permits the simultaneous data collection of a virtually unlimited number of photo diode channels. Using advanced networking features, processed-pin-photodiode data may be communicated to a single host computer. Network communications provides facilities to perform calibration, diagnostics, and in-system firmware upgrades.

Freescale MC9S12A128 Microcontroller

Orchid selected a Freescale MC9S12A128 microcontroller as the brain of this low cost, multi-channel transconductance amplifier. The HCS12’s feature-rich complement of flash program store, static RAM, timers, analog to digital conversion circuitry, and robust processor reliability make the HCS12 a perfect fit. CodeWarrior software development tools unlock the power of the sixteen bit HCS12 processor. Complex filtering and mathematical algorithms may be implemented on the transconductance amplifier board itself.

Orchid Technologies

The development of custom electronics technology solutions for our OEM clients is Orchid’s entire business. High-performance analog circuit designs with rapid design cycles, demanding technical requirements, and unforgiving schedules set us apart. Call Orchid Technologies today. We’ll put a low cost, microprocessor enabled, analog amplifier product design in your hands tomorrow!



Custom Engineering From Concept to Production

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