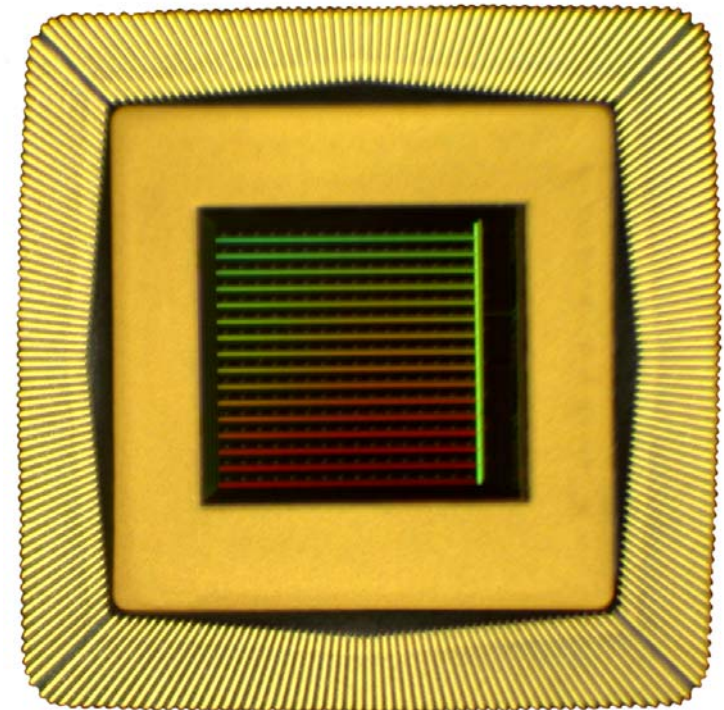




## DANA™ Amplifier/Shaper ASIC chip



Nova R & D Inc. 833 Marlborough Avenue, Suite 200  
Riverside, CA 92507-2133, USA  
Phone: (951) 781-7332 Fax: (951) 781-4858  
Email: [sales@novarad.com](mailto:sales@novarad.com) Web: [www.novarad.com](http://www.novarad.com)



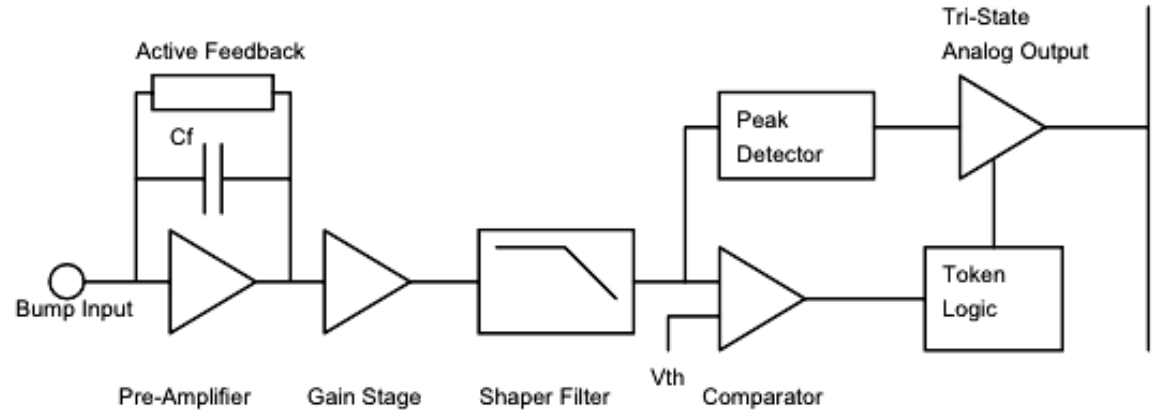
# DANA™

## High resolution x-ray and gamma ray spectroscopy

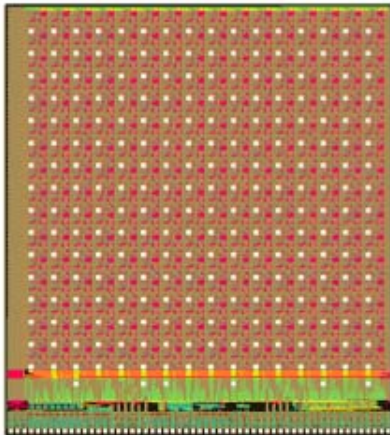
DANA has 256 channels with low noise and high input impedance charge-sensitive amplifiers, including a self-resetting function designed for very low noise, leading to a high energy resolution for spectroscopy.

### DANA Development Kit

Includes mother board, daughter board, ASIC and high-speed I/O interface, firmware and software. Other options available. Call for quote.



The figure above shows the block diagram for a single signal chain of the chip.



DANA Integrated Circuit

NOVA R & D Inc.

### Features:

- 256 channels, 16x16 matrix, 500 $\mu$ m pitch
- Self-resetting charge sensitive amplifiers
- Two input energy ranges 10-250 keV and 0.05-1.5MeV
- Pulse shaping time selectable, 0.2- 4  $\mu$ s
- Input referred noise: $\approx$  250 e rms @ 0 pF input
- Gain and offset digitally adjustable for each channel
- Positive and negative input polarity
- Data readout controlled by programmable token logic
- Count rate capability: $>$  4 x 10<sup>5</sup> counts/second, all channels combined
- 1500 mW nominal power consumption
- Low power version is under development