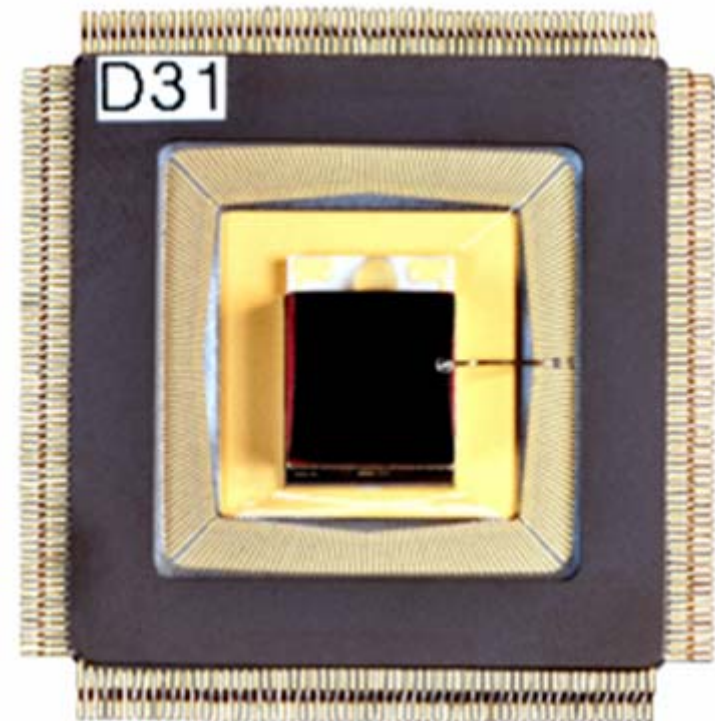




## HILDA™ PIXEL DETECTORS



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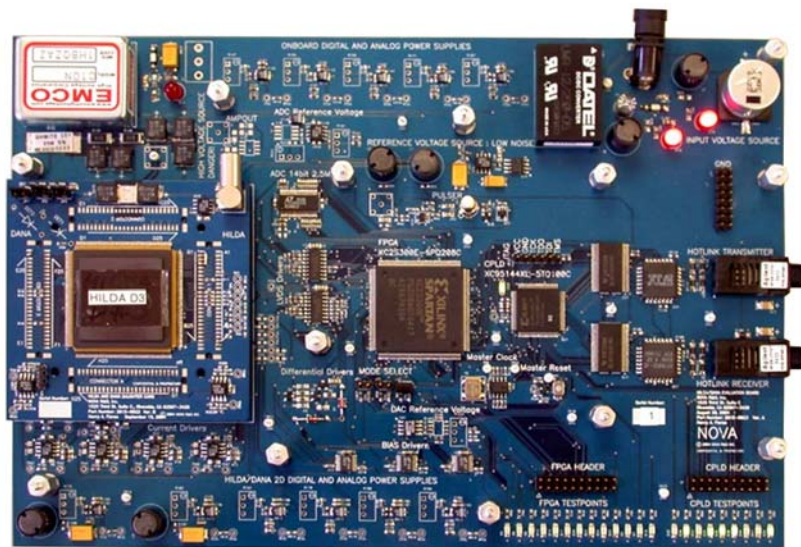
# HILDA™

## 2D array digital and multispectral imaging

HILDA is a solid state pixel readout ASIC with a 16 x 16 array of 500  $\mu\text{m}$  x 500  $\mu\text{m}$  pixels with 8 energy bins per channel. HILDA is suitable for high resolution, high dynamic range industrial or medical x-ray imaging. High contrast can be achieved through photon counting materials information can be extracted through the use of multiple energy bins.

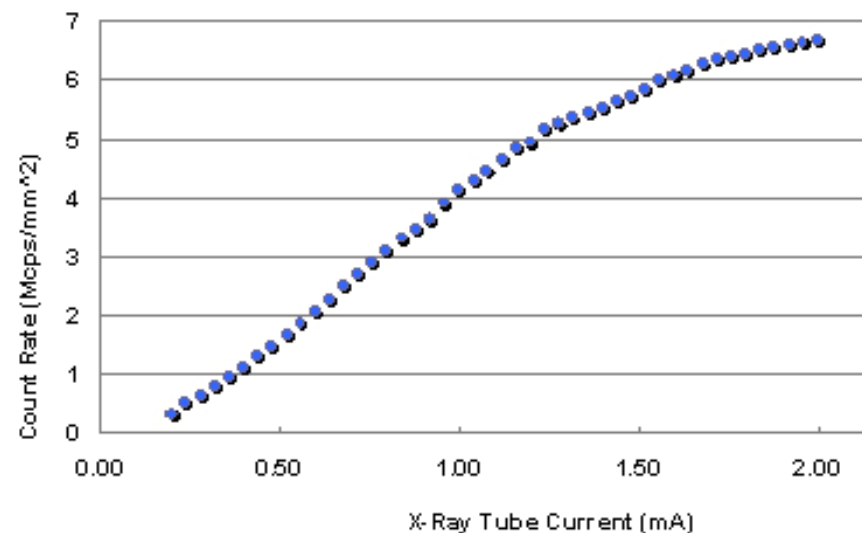
## HILDA Development Kit

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



NOVA R & D Inc.

HILDA Evaluation System



Features:

- $2 \times 10^6$  counts/second per channel count rate capability
- 200 keV and 600 keV input energy ranges
- 16 bit counter dynamic range
- Comparator thresholds, gains and offsets are digitally adjustable
- Externally adjustable, 100 ns to 2  $\mu\text{s}$  pulse decay time
- User-controlled test signal input and analog monitor output for testing purposes
- Input loading capacitance optimized for 0.5 pF
- Frame readout (all counters stop, longer dead time)
- Raster readout (only the counters in the channel being read stop, shorter dead time)
- Readout can be limited to fewer than eight counters per channel and to any (contiguous) range of channels, to reduce dead time
- All I/O pads located on one side to simplify tiling
- 1 W nominal power consumption