

# Advanced Photon Source



## AOD Beamline Controls Group

### Analog-to-Digital Converter

#### ICB Programmable ADC

The Canberra Model 9635 Analog-to-Digital Converter is a single-width NIM family member of the ICB line of programmable front end electronics and has been designed primarily for use in high count rate applications. This highly linear, 8K ADC contributes no system dead time to spectroscopy systems using traditional Gaussian or Triangular Shaping amplifiers.

The 9635 boasts differential and integral linearity performance that until now was only possible with Wilkinson ADCs. Its exceptional linearity improves peak shape and resolution, thereby improving the overall performance of the spectroscopy system.

#### Application Features:

- Complete programmability within the Genie family
- Complete programmability within the Genie family
- Utilizes the Canberra Instrument Control Bus (ICB)
- 900 ns fixed dead time ADC
- 8K channel resolution
- Digital offset in 128-channel increments
- Exceptional linearity (differential  $<\pm 0.9\%$ , integral  $<\pm 0.025\%$ )
- Pulse height analysis using either automatic peak detection or delayed triggering
- Analog sample voltage analysis
- Pulse pileup rejection and live time correction interfaces
- Compatible with Loss Free Counting Systems\*
- Secure computer operation without conflicting front panel controls

#### Model 9635



<http://www.canberra.com/products/657.asp>