

# 4 element SDD system

High-Count rate / High-Sensitivity by multi-element SDD  
with Digital Signal Processing

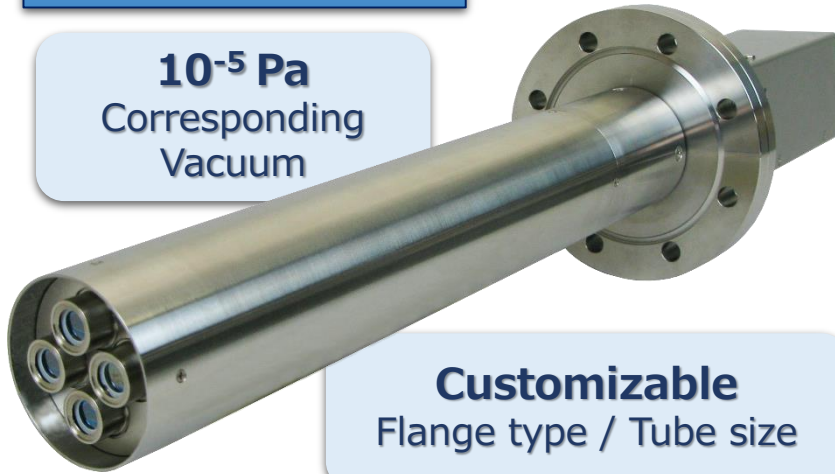
MADE IN JAPAN

SYSTEM

This system realize high-sensitivity by multiple SDD with high-count rate and high-energy resolution. It is possible by Transistor Reset Processing and Digital Signal Processing.

**XSDD50-04**

**10<sup>-5</sup> Pa**  
Corresponding  
Vacuum



**Customizable**  
Flange type / Tube size

**Selectable**

- Active Area: 30mm<sup>2</sup> / 50mm<sup>2</sup>
- Window: Be / AP3.3 / Window-less

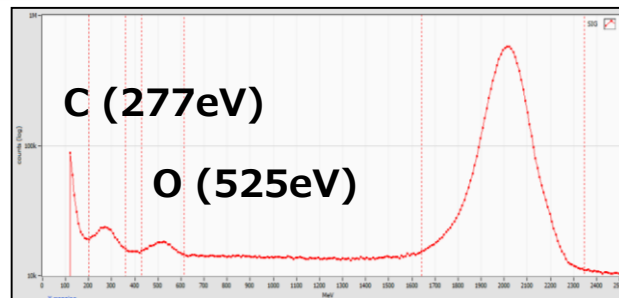
Recommended  
Module

**APN504XGbE**

**High Speed ADC**  
**(100MHz·14Bit)**

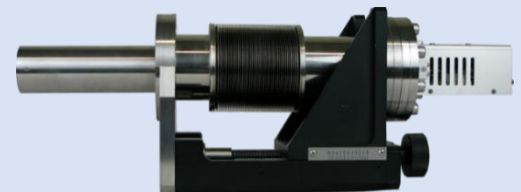
**&**

**Highly Integrated**  
**FPGA**



[Example]  
Spectrum of soft X-rays

<b>Detector</b>	SDD 50mm <sup>2</sup> , Window-less / AP3.3 / Be
<b>Element area</b>	260mm <sup>2</sup> (65mm <sup>2</sup> × 4 element)
<b>Active area</b>	200mm <sup>2</sup> (65mm <sup>2</sup> collimated to 50mm <sup>2</sup> × 4 element)
<b>Measurement mode</b>	Histogram / List / Waveform / ROI-SCA
<b>ADC sampling</b>	4CH 100Msps 14bit
<b>Energy resolution (typ.)</b>	244eV@5.9keV MnKa *Peaking time: 0.25μs, 1000kOCR
<b>SDD power supply</b>	-200V, ±5V, +3.3V
<b>Throughput</b>	Max. 150kcps : 2us Max. 1000kcps : 0.15us
<b>Interface</b>	Ethernet (TCP/IP)
<b>Option</b>	Z-axis movement mechanism, UHV valve
<b>Vacuum capable</b>	<10 <sup>-5</sup> Pa
<b>Flange type</b>	ICF114 (Standard)
<b>Accessory</b>	Software, Instruction Manual



[Example]  
Transport with bellows  
corresponding to the vacuum

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**TechnoAP**  
Manufacturer of Radiation Measurements

TechnoAP Co., Ltd.  
☎ +81-29-350-8011 ☎ +81-29-352-9013  
🏠 2976-15 Mawatari, Hitachinaka-shi, Ibaraki, Japan, 312-0012  
🌐 <http://www.techno-ap.com> ✉ [tap@techno-ap.com](mailto:tap@techno-ap.com)

\*Please note that contents may change without prior notice.

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