

# QUALITY ASSURANCE DATA SHEET

## GEM Series HPGe (High-Purity Germanium) Coaxial Detector System

### Model and Serial Numbers

Detector Model No. GEM-60195-PLUS-P  
Cryostat Configuration PopTop  
Dewar Model -  
Preamplifier Model 232P  
Preamplifier S/N 305  
H.V. Filter Model 138  
H.V. Filter S/N 9682

### Important Reference Data

Ship Date 08/30/04  
Serial No. 38-TP40852A

When calling Customer Service, always  
Reference this Detector Serial No.

1010705

### Cryogenic Information

Dewar Capacity - Static Holding Time - Detector Cool-Down Time -

### Dimensions

Crystal Diameter 81.3 mm  
Crystal Length 55.5 mm  
End Cap to Crystal 4 mm

### Absorbing Layers

Aluminum 1.00 mm  
Magnesium - mm  
Inactive Germanium 700  $\mu$ m

### High Voltage Bias

Recommended Operation Bias, POSITIVE 4000 V

### Performance Specifications\*

	Warranted	Measured	Amplifier Time Constant
Resolution (FWHM) at 1.33MeV, <sup>60</sup> Co	<u>2.15</u> keV	<u>1.99</u> keV	<u>6</u> $\mu$ s
Peak-to-Compton Ratio, <sup>60</sup> Co	<u>56</u>	<u>68.9</u>	<u>6</u> $\mu$ s
Relative Efficiency at 1.33 MeV, <sup>60</sup> Co	<u>48</u> %	<u>62.1</u> %	<u>6</u> $\mu$ s
Peak Shape (FWTM/FWHM), <sup>60</sup> Co	<u>2.00</u>	<u>1.92</u>	<u>6</u> $\mu$ s
Peak Shape (FWFM/FWHM), <sup>60</sup> Co	<u>3.00</u>	<u>2.65</u>	<u>6</u> $\mu$ s
Resolution (FWHM) at 122 KeV, <sup>57</sup> Co	<u>1100</u> eV	<u>707</u> eV	<u>6</u> $\mu$ s

Other Capule NUCA# 7125

Data Certified By LAPhllips Date 08/30/04

\*Measured at a nominal rate of 1000 counts/s unless otherwise specified.