

CAPINTEC Absorbed Dose ALERT System



In an emergency involving release of radioactive materials, internal contamination due to inhalation is a potential health concern. When a large population is potentially impacted, a critical public health challenge is to provide an initial field screening to rapidly triage and identify individuals with significant amounts of internal contamination. Capintec is proud to announce a measurement solution to this challenge.*

Capintec's Absorbed Dose ALERT System is a cost effective measuring instrument. It can measure and quantify internal organ burden after a radiologic event and perform assay and MCA functions. The Absorbed Dose ALERT module records demographic data, calculates BMI values, and selects appropriate body type.

Measurements may be performed at thyroid, outer thigh, and back of right lung, and data are currently available for Co-60, Ir-192, Cs-137, and I-131. The software utilizes conversion factors to calculate uCi-intake values from 1 to 30 days after intake. Results will be flagged when user defined trigger levels are exceeded. User can modify default measurement protocols as required to accommodate individual variability.

The Custom Protocol program supports customized measurements and calculations by integrating pre-defined measurement screens with Microsoft Excel for analysis and report generation. This feature is ideal for post event data analysis.

Software Features

- Detects one ALI in 60 seconds or less
- Multiple prompts assure user friendly format
- Automatically calculates Body Mass Index (BMI)
- Selects appropriate conversion factors** based on BMI
- Calculates uCi-intake at elapsed time after event
- Data currently available for following categories:
 - Isotopes: Co60, Ir192, Cs137, and I131
 - ✓ Organ sites: thyroid, lung, and outer thigh
 - ✓ Elapsed time: day 1 through day 30 after intake
 - ✓ Results flagged if values exceed trigger levels
- Archive, storage and data retrieval features
- Specialized export features transfer data directly to Excel®
- Flexible report formats, detailed and summary
- Custom Protocol module
- Fully automated quality assurance program
- Thyroid uptake with multiple protocol choices
- Bioassay program
- 1024 channel MCA with manual and automated controls
- Password protected

**This product was developed using physical measurements on Capintec's Captus 3000 and computer modeling data developed at Georgia Institute of Technology with support and research funded by the Centers for Disease Control and Prevention.*



Absorbed Dose ALERT System

The system incorporates a light-weight portable stand, which folds to fit into a standard van. This feature addresses the need for quick mobilization with easy and convenient modes of transport. The entire system can be assembled or disassembled in less than five minutes. Range of motion supports standing, chair, and gurney positioning.

Fully automated quality assurance program using Cs-137 and Eu-152 rod sources provided with system. QA includes full system calibration, energy resolution, efficiency calculations, constancy, chi-squared, and MDA functions.

1024 channel user friendly Multi-Channel Analyzer provides automatic and manual ROI selection, ability to use stored auto-calibration setup, or manually adjust zero, gain, and voltage. Spectra can be saved and retrieved. An isotope library with data for over 90 isotopes is included.

Bioassay module stores individual efficiencies for bioassay geometry, multiple measurements for each staff individual, and flags values above preset trigger levels.

Optional Wipe Test functions include menu driven format and automatic isotope identification feature. Values above trigger levels will be flagged. (Note: mobile stand does not include well counter).

System also provides data storage and retrieval, archive, and export features. Both summary and individual detail reports are available.

Optional Dicom interface pulls network patient information and sends reports to PACS.

Hardware Features:

- 2 inch diameter flat NaI detector
- Collimator designed to meet ANSI N44.3
- Laptop computer
- External MCA card with USB interface
- Isolation transformer
- Unique tip proof design
- Articulating spring arm, with 3 adjustable joints
- Range of motion for gurney, chair or standing positions
- Portable stand, which folds for transport and storage
- Weight @ 120 pounds
- Locking wheels
- Assembled in less than 5 minutes
- Includes Cs-137 and Eu-152 reference standards

Optional Accessories:

- Locking carrying cases
- Rod source holder

Absorbed Dose ALERT System w/Portable Stand - Item # 5430-2127

Absorbed Dose ALERT System software (for current Captus® 3000 users)- Item # 0960-0177

