

# Captus 4000e

## Thyroid Uptake System



The Captus® 4000e is a comprehensive Nuclear Medicine Measurement System, with specific software modules for thyroid uptake, bioassay, wipe tests, automated quality assurance tests, lab tests, and isotope library. The system includes a fully functional 1024 channel MCA with auto and manual calibration. Timed activity mode features a programmable repetitive timed measurement program.

Improved menu driven workflow and large 20 inch color touch-screen streamlines user interface.

The fully integrated DICOM interface communicates directly with hospital information systems, and can transfer patient, wipe test, and QC data.

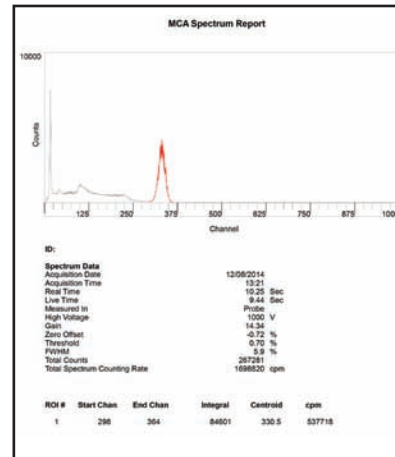
New and improved stand provides ergonomically adjustable monitor and easy to position articulating collimator arm. Four sided comfortable handle grips and swivel wheels ensure easy mobility. PC can be attached to either right or left side to optimize workspace.

### FEATURES

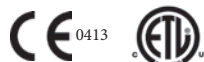
- New and improved color touch screen user interface
- Large 20 inch all-in-one touch screen computer
- Fully integrated DICOM interface for patient data, QC and wipe tests
- Custom protocol Included as standard
- Ergonomically designed mobile stand
- Articulating arm with wide range of motion
- Medical grade Corian™ countertop with document storage shelf
- Secure neck phantom storage location
- Source holder for reproducible QC positioning
- Microsoft Office™ Professional 2010 option

### Captus 4000e Reports:

Reports include color graphics and isotope spectrum. Thyroid report includes time vs. uptake value graph. Out of range results are flagged. Reports can be printed or saved as .pdf files.



- Captus® 4000e Thyroid Uptake System: Item #5430-30151
- Captus® 4000e Thyroid Uptake System with Well: Item #5430-30152
- Captus® 4000e Well Counting System: Item #5430-30153
- Captus® 4000e DICOM Interface: Item #5430-00007



# Captus 4000e

## Software Features:

### Diagnostics and Tests

- Fully automated Quality Assurance Section includes energy calibration, zero adjust, gain adjust, detector efficiency, detector resolution, chi-square, constancy, and MDA
- Manual calibration available in MCA module.

### Thyroid Uptake

- Provides four predefined protocols
- Supports both capsule and liquid dose formats
- Dose may be pre-counted before patient assignment
- Predose measurement option
- Normal range option

### Wipe Tests

- Setup for multiple groupings
- Isotope identification available
- Spectrum is displayed for each wipe
- Activity exceeding trigger levels flagged in red

### MCA

- 1024 channels
- Automated and manual calibration selection
- Preset or user defined ROI
- Count set by real time, live time, or total peak counts
- Timed activity feature enables predefined continual repetitive measurements

### DICOM Interface (Optional)

- Fully integrated interface iwth Captus® 4000e
- Retrieve patient data from worklist
- Upload patient, wipe test, and QA reports

### Bioassay

- Monitors Staff for I 123, I 125, and I 131 exposure
- User defined action levels for each isotope
- Individual and summary reports available

### Custom Protocol

- Create Custom Measurement Sequence
- Customizable Reports

### Reports

- Reports include full spectrum graphics
- Thyroid report includes time vs. uptake value graph
- Data is archived
- Reports can be printed or saved as a .pdf file

### Power:

#### Line Voltage

- 120 VAC, 60 Hz, 2.6 AMP
- 230 VAC, 50 Hz, 1.1 AMP
- Isolation Transformer with hospital grade cord and plug

## Optional Components



Neck Phantom:  
Item #5230-0038



Well Detector (2" Shield):  
Item #5420



Rod Source Holder:  
Item #7315-1850

## Hardware Specifications:

### Thyroid Uptake Stand

- Ergonomically designed floor stand
- Medical grade Corian countertop with shelf
- Adjustable height PC stand, left or right side mounting
- Articulating arm with 34" vertical range of travel
- and 220° collimator rotation
- Protective cable management system
- Neck phantom storage location
- Fully protected internally routed cables
- (4) Heavy duty locking casters that swivel 360°
- Isolation transformer for patient and user safety
- QA source holder for reproducible geometry

### Computer

- 20" All in One Touch Screen Flat Panel Computer
- Windows 8 Platform

### Printer

- Color Ink Jet printer

### Collimator

- 2" dia. 14 pin NaI (TI) detector iwth 1.55" deep and .66" diameter well
- Flat field collimator meets ANSI N44.3, IAEA
- Precision measurement and alignment rod, which measures distance directly to thyroid

### Well Counter

- 2" dia. NaI (TI) well detector with 1.55" deep and .66" diameter well
- 1" lead well shield with brass liner
- (Optional 2" shield available)

### Multichannel Analyzer Interface PC Board

- Two detector input
- 1024 Channels
- Maximum count rate: 200,000 cps at 5%
- Count Rate Linearity- Within 2% up to 150,000 cps
- ROIs automatic or manual
- Differential Linearity <2% over the top 98% of channels
- Integral Linearity <1% over the top 98% of channels
- Presets live time, real time, total counts
- Automatic peak finding
- Software controlled lower level discriminator

### Thyroid Uptake Stand Dimensions

- Closed Storage Position: 56" h x 28" w x 32" d
- (142 x 71 x 81 cm)
- Arm able to extend 36" (91 cm) horizontally beyond shelf
- Vertical travel 25" to 63" (64 to 160 cm)
- Weight: Uptake System: 340 lbs (154 kg)
- Weight with 1" Shielded Well: 410 lbs (186 kg)
- Weight with 2" Shielded Well: 540 lbs (245 kg)

