
**Selenia® Dimensions® Mammography System**

The Selenia® Dimensions® mammography system provides superb image quality, high productivity and a variety of advanced applications. Its Genius™ 3D MAMMOGRAPHY™ exam strives to set new standards for earlier detection of breast cancers, clearer lesion images, and fewer false positive recalls and biopsies. That's less patient anxiety and burden, more business efficiency and cost savings, and, more confidence.

The system, designed from the ground-up for breast tomosynthesis, offers superior clinical performance, proven to benefit women of all breast densities, compared to 2D mammography. The Selenia Dimensions platform is designed to keep evolving as new technologies emerge — as we strive for even better patient outcomes.

**NEW**

**Selenia Dimensions Custom Packages**

All Selenia Dimensions packages can progress with you, making it a smart choice for your facility today and tomorrow. From low-dose 3D MAMMOGRAPHY™ imaging, 3D™ biopsy, to Contrast Enhanced 2D imaging co-registered with breast tomosynthesis imaging, Selenia Dimensions is the most comprehensive mammography system available today.

A broad range of customizable, ergonomic Selenia Dimensions system packages are available to match your specific needs. Start with 3D MAMMOGRAPHY™ imaging or select from 2D imaging capabilities. Then add more ergonomic and workflow features to enhance your facility’s performance.

Optional equipment shown.
Customize Your 3D MAMMOGRAPHY™ Package Today!

Selenia Dimensions System Avia 3000 Package (2D-only)
- Ideal for 2D screening.
- Also available for routine 2D diagnostic.
- Evergreen system, with multiple upgrades available as your needs change.
- Offers fully functional workflow, basic technologist ergonomics and enhanced patient ergonomics.

Selenia Dimensions System 6000 Package
- Ideal for mid to high volume screening and advanced diagnostics.
- Offers enhanced workflow, enhanced technologist ergonomics and enhanced patient ergonomics.
- Additional options are available to customize your package.

Selenia Dimensions System 9000 Package
- Ideal for high volume screening and advanced diagnostics.
- Offers elevated workflow, harmonized communications, optimal technologist ergonomics and enhanced patient ergonomics.

15-40% fewer recalls + 41% more invasive cancer detection
## Overall System Specifications

### General Operating Conditions

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range</td>
<td>20°C to 30°C</td>
</tr>
<tr>
<td>Max. Rate of Temperature Change</td>
<td>&lt;10°C / hr</td>
</tr>
<tr>
<td>Relative Humidity Range</td>
<td>20% to 80% non-condensing</td>
</tr>
</tbody>
</table>

### Electrical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>System Protection</td>
<td>Integrated UPS*</td>
</tr>
<tr>
<td></td>
<td>1000 VA</td>
</tr>
<tr>
<td><strong>Electrical Requirements</strong></td>
<td></td>
</tr>
<tr>
<td>Input Line Voltage</td>
<td>100/120/220/230/240 VAC</td>
</tr>
<tr>
<td>Input Current</td>
<td>2.0 A max. @ 200/220/230/240 VAC</td>
</tr>
<tr>
<td></td>
<td>3.5 A max. @ 100/120 VAC</td>
</tr>
<tr>
<td>Frequency</td>
<td>50/60 Hz</td>
</tr>
</tbody>
</table>

### General Specifications

**Computer and Reconstruction Subsystem**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design</td>
<td>Fully integrated, zero footprint</td>
</tr>
<tr>
<td>CPU Type</td>
<td>Multi-core Intel</td>
</tr>
<tr>
<td>Memory</td>
<td>8 GB RAM (min): Avia 3000 16 GB RAM (min): 6000/9000</td>
</tr>
<tr>
<td>Hard Drive</td>
<td>1.0 TB (min.)</td>
</tr>
<tr>
<td>Operating System</td>
<td>Win 7/64 Embedded</td>
</tr>
<tr>
<td>Ethernet</td>
<td>10/100/1000 base-T</td>
</tr>
<tr>
<td>Removable Storage</td>
<td>CD/DVD+/− R/W</td>
</tr>
<tr>
<td>USB Ports</td>
<td>Dual USB 2.0</td>
</tr>
<tr>
<td><strong>Local Image Buffer Capacity</strong></td>
<td></td>
</tr>
<tr>
<td>Image buffer</td>
<td>2D: “9,000 4-view studies; 3D™: “3,000”</td>
</tr>
</tbody>
</table>

### Graphics Processors**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advanced capabilities</td>
<td>Generated 2D Imaging</td>
</tr>
</tbody>
</table>

### Additional Options*

**Biopsy**

- Affirm™ breast biopsy guidance system
- Affirm stereotactic biopsy additional system license
- Affirm 3D™ biopsy license
- Affirm 3D™ biopsy additional system license

**Advanced Diagnostics**

- I-View™ software license for Contrast Enhanced 2D Imaging

**Advanced Imaging**

- C-View™ software license for Low-dose 3D MAMMOGRAPHY™ Imaging
- Image Analytics
  - Cenova® server
  - ImageChecker™ 2D CAD License
  - ImageChecker CAD for C-View 2D License
  - ImageChecker 3D™ CAD License*
  - ImageChecker 3D™ CAD License
- Quantra™ 2D and 3D™ breast density analysis software license
- Quantra 3D™ License

**Documentation**

- Manuals and Reference Documents
  - User Manual
  - Service Manual
  - Quality Control Manual
  - DICOM Conformance Statement

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## System Options and Accessories

### Selenia Dimensions Packages

- Avia 2D 3000
- 2D 6000
- 2D 9000
- 3D 6000
- 3D 9000

### Paddles and Accessories

**Screening Compression Paddles**

- 24x29 cm Screening Paddle
- 18x24 cm Screening Paddle
- Small Breast Screening Paddle

**Diagnostic Compression Paddles**

- 10 cm Contact Paddle
- 15 cm Contact Paddle
- 7.5 cm Spot Contact Paddle
- Frameless Spot Contact Paddle

**Magnification Compression Paddles**

- 10 cm Magnification Paddle
- 15 cm Magnification Paddle
- 7.5 cm Spot Magnification Paddle

**Localization Compression Paddles**

- 10 cm Open Localization Paddle
- 15 cm Open Localization Paddle
- 10 cm Open Magnification Localization Paddle
- 10 cm Perforated Localization Paddle
- 15 cm Perforated Localization Paddle
- 10 cm Perforated Magnification Localization Paddle

**Ultrasound Compression Paddles**

- Ultrasound Paddle

**Imaging Accessories**

- Magnification Platform
- Localization Cross-hairs
- Magnification Localization Cross-hairs

**Other Accessories**

- Dual-function footswitches (2)
- Integrated UPS

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- **•** – Included capability
- **○** – Optional capability on some configurations, sold separately
- ▲ – Recommended for biopsy and contrast applications.
- ☞ – Not available for mobile configurations.
- ☞+ – Optional future capability, sold separately for the Avia 3000 package. Not available at the time of initial purchase. Please consult your Hologic sales representative for details on additional requirements.
- ☞* – At time of initial order only.

* Not FDA approved or available for sale in the U.S.
### Imaging, Acquisition Workstation and Workflow Features

<table>
<thead>
<tr>
<th>Selenia Dimensions Packages</th>
<th>2D 3000</th>
<th>2D 6000</th>
<th>2D 9000</th>
<th>3D 6000</th>
<th>3D 9000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avia 2D</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>3D 2D 6000</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>3D 2D 9000</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td>3D 3D 6000</td>
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<td>•</td>
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<tr>
<td>3D 3D 9000</td>
<td>•</td>
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<td>•</td>
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<td>•</td>
</tr>
</tbody>
</table>

#### Initial Imaging Modes

**Full Field Digital Mammography**

- 2D Screening
- 2D Diagnostic

**Genius™ 3D MAMMOGRAPHY™ Exam**

- 3D™ Screening: Combo (3D™+2D)
- Low-dose 3D™ Screening with C-View™ software: TomoHD (3D™ exam+generated 2D)
- 3D™ Screening: ComboHD (3D™ exam+2D+generated 2D)
- 3D™ Diagnostic

**Workflow**

- Working Environment
  - Powered height adjustment
  - Powered memory height adjustment
  - Fingerprint user identification
  - Integrated barcode reader
  - Flat work surface
  - Stowable keyboard drawer
  - Left/right control position selection

- Safety Features
  - Emergency stop button
  - Emergency compression release button

- System Control
  - Keyboard and mouse
  - 1.2 MP color LCD control monitor
  - LCD touch-screen control

- Image Monitor
  - 2 MP medical-grade color LCD display
  - 3 MP medical-grade grayscale LCD display
  - Image monitor tilt and swivel
  - Dual-articulating swing-arm*
  - Left/right image monitor position selection

- Radiation Protection
  - Integrated leaded acrylic X-ray shield; H x W: 203 cm x 86 cm (80 in x 34 in)
  - Lead equivalence: 0.5 mm

- Installation Flexibility*
  - Mobile coach travel kit

#### Software/Connectivity

**DICOM Services**

- Print
- Query
- Storage
- Storage Commitment
- Worklist

**IHE Profiles**

- Mammography Image
- Patient Information Reconciliation
- Scheduled Workflow

**Additional Options**

**Workflow Management**

- Advanced Workflow Manager server and license package
- Advanced Workflow Manager additional licenses

**Software Licenses**

- Advanced Connectivity License Package:
  - MPPS License
  - Radiation Dose SR License

- Notices License

- Diagnostic Imaging License

- Dynamic Tube Head Motion License

- Tomosynthesis Imaging License

- C-View™ software license for Low-dose 3D MAMMOGRAPHY™ Imaging

- I-View software license for Contrast Enhanced 2D Imaging*

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*Based on ACR phantom 4.2 cm compressed breast.*
## X-ray Gantry Specifications

### C-Arm

<table>
<thead>
<tr>
<th>Design</th>
<th>Split C-arm, biopsy and tomosynthesis capable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vertical Range</td>
<td>70.5 cm +5.1/-0 cm (27.75 in +2.0/-0 in) to 141 cm +0/-17.8 cm (55.5 in +0/-7.0 in)</td>
</tr>
<tr>
<td>Vertical Travel</td>
<td>Motorized</td>
</tr>
<tr>
<td>Rotation</td>
<td>2D: +195° to -155° Biopsy and 3D™ exam: +180° to -140°</td>
</tr>
<tr>
<td>Source-Image Distance (SID)</td>
<td>70 cm</td>
</tr>
<tr>
<td>Patient Face Shield</td>
<td>2D: Removable 3D™ exam: Retractable and removable</td>
</tr>
</tbody>
</table>

### Vertical Range

- 70.5 cm +5.1/-0 cm (27.75 in +2.0/-0 in) to 141 cm +0/-17.8 cm (55.5 in +0/-7.0 in)
- 70 cm +0/-17.8 cm (27.75 in +0/-7.0 in)

### Vertical Travel

Motorized

### Rotation

- 2D: +195° to -155° Biopsy and 3D™ exam: +180° to -140°

### Modes of Operation

- Pre-compression Range: 70 to 134 N (15.6 lbs to 30 lbs)
- Full-compression Range: 89 to 178 N (20 lbs to 40 lbs)

### Pre-compression Range

- Standard or FAST™ paddle, User-selectable

### Full-compression Range

- 0.3 mm, large focal spot; 0.1 mm, small focal spot*

### Focal Spot Size

- 0.05 mm Rhodium (Rh)
- 0.05 mm Silver (Ag)
- 0.70 mm Aluminum (Al) (3D™ exam)
- 0.30 mm Copper (Cu) (CE2D)

### Grid Structure

- HTC™ High Transmission Cellular Grid

### Grid Behavior

- Auto-retracts for magnified 2D and all 3D™ exam views

### Storage Environment

- Storage Temperature Range: 10° C to 30° C (50° F to 86° F)
- Maximum Rate of Temperature Change: < 10° C per hour
- Relative Humidity Range: 10% to 80%, non-condensing

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## X-ray Subsystem

### Integrated Generator

<table>
<thead>
<tr>
<th>Design</th>
<th>Zero footprint, fully integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Constant Potential High Frequency Inverter</td>
</tr>
<tr>
<td>Rating</td>
<td>7.0 kW max. (ISOwatt); 200 mA @ 35 kV</td>
</tr>
<tr>
<td>Electrical Power Capacity</td>
<td>9.0 kW max.</td>
</tr>
<tr>
<td>kV Range</td>
<td>2D: 20 to 39 kV, 2D, 1 kV steps (0.5 kV steps option) 3D™: 20 to 49 kV, 2D, 1 kV steps</td>
</tr>
<tr>
<td>mAs Range</td>
<td>3.0 to 500 mAs</td>
</tr>
<tr>
<td>mA Range</td>
<td>200 mA, large focal spot 50 mA, small focal spot*</td>
</tr>
</tbody>
</table>

### Anode Type

- Tungsten, rotating

### Anode Design

- Bi-angular

### Anode Speed

- 9500 RPM (high speed)

### Heat Capacity

- 222 kJ (300,000 HU)

### Target Tube Angle

- 16°, large focal spot; 10°, small focal spot*

### Focal Spot Size

- 0.3 mm, large focal spot; 0.1 mm, small focal spot*

### Filtration

- 0.05 mm Rhodium (Rh)
- 0.05 mm Silver (Ag)
- 0.70 mm Aluminum (Al) (3D™ exam)
- 0.30 mm Copper (Cu) (CE2D)

### Port

- 0.63 mm Beryllium

### Electrical Requirements

- Input Current: 3.5 A standby 65 A for 5 s at 208 VAC 40 A max. breaker rating
- Frequency: 50/60 Hz ± 5%
- Number of Phases: Single, permanently wired

### Exposure Modes

- Manual: User selects all parameters
- Auto-Time: System selects mAs; User selects filter, kV
- Auto-kV: System selects kV, mAs; User selects filter
- Auto-Filter: System selects filter, kV, mAs
- X-ray Activation: Single exposure, either table-top button or integrated footswitch*

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* - Included capability
○ - Optional capability, sold separately
▲ - Recommended for biopsy and contrast applications.
✦ - Not available for mobile configurations.
✦ – Please consult your Hologic sales representative for details on requirements.
✦ – Optional future capability, sold separately for the Avia 3000 package. Not available at the time of initial purchase. Please consult your Hologic sales representative for details on additional requirements.
• – At time of initial order only

For further detailed specifications, please see the Selenia Dimensions User Guide.
Selenia Dimensions System
Optional equipment shown.

Complementary site planning is available with your purchase, including connectivity planning and custom room drawings.

13. FDA PMA submission P080003

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Breast and Skeletal Health