MAMMOSCAN

Full-field Digital Mammography (FFDM) System

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- The MAMMOSCAN utilizes a slot-scanning imaging technique, with a thin X-ray beam scanning across the breast while a multi-linear array detector is moving under the breast.

- This FFDM system with leading-edge design and high performance with low dose radiation exposure.

Intended Use

The MAMMOSCAN is a full-field digital mammography X-ray system, designed to perform digital X-ray breast imaging for diagnostic and screening purposes (i.e., for early breast cancer detection).

MAMMOSCAN is designed to be used in clinical practice to the same purpose, as a traditional analog (film-type) mammographic apparatus.

Design Features

- Digital scanning receiver of X-ray image with **54 microns** pixel size

- Anti-scatter grid free design, allowing for **patient dose reduction** with no loss of image quality
- High loading factor of X-ray tube, providing long-term stable operation together with high throughput and efficient patient examinations

- Compact and ergonomic system design

- Motorized C-arm height and rotation adjustment

- Touch-screen interfaces at the operator workstation

- Two types of replaceable compression paddles of standard dimensions, used depending on the breast size

- Digital indication of breast compression force, compressed thickness and projection angle

Advantages
In comparison with digital mammographic apparatus based on standard flat panels, image plates and other types of digital imaging receivers, the digital mammography scanning system ADANI MAMMOSCAN provides a considerable number of clear advantages for performing speedy lower dosage diagnostics of patients.

- **High spatial resolution**
  MAMMOSCAN generates an image size of 4096 pixels x 5560 pixels with a 22 cm x 28-cm field-of-view, a pixel size of 54 microns with a limiting resolution of 10 line pairs/mm in standard-resolution mode
- **High contrast resolution**
  High contrast resolution together with ability to manipulate images makes detection of breast cancer more accurate
- **Low dose**
  The total scan time for the 28 cm image width is less than 6 seconds, with an effective exposure time of 0.4 seconds. The slot-scan technology results in minimized scatter radiation. The faster examination may induce more women to comply with screening at recommended intervals, thus making mammography facilities more efficient.
- **High throughput**
  Powerful X-ray tube assembly unit with a dedicated heat exchanger employed provides the higher patient throughput within a busy clinical practice
- **Enhanced image processing**
  The shielded area incorporates the operator´s workstation. The MAMMOSCAN is designed with open architecture for greater compatibility with existing network environments