MAMMOGRAPHY

GENERAL RADIOGRAPHY & FLUOROSCOPY

CHEST RADIOGRAPHY

DENTAL RADIOGRAPHY

MOBILE DIAGNOSTIC UNITS
ADANI Diagnostic X-Ray Systems built on the state-of-the-art advanced imaging technique

ADANI Advanced Scanning Technologies. ADANI is the world leader in super low dose and cost-effective digital X-ray slot-scanning systems for both medical and security markets. When developing new apparatus, we use safe and innovative technologies which result in reducing the harmful effect of the X-radiation on the patient and also providing a high quality image to support the clinical diagnosis or screening effectiveness.

ADANI Advanced Post-Processing Technique. ADANI has developed advanced image processing algorithms, which deliver consistent quality of images of different body regions and patient sizes. Additional manual processing of the image is no longer required. Both bone and soft tissues are displayed on the same image simultaneously with the highest possible level of spatial resolution and contrast.

The ADANI Product Line. ADANI’s digital radiography systems deliver unsurpassed image quality for screening and diagnostic applications. ADANI has created a wide range of multipurpose radiography and fluoroscopy systems that focus on producing high-quality X-ray images while keeping the patients exposure to radiation at a minimum level.

These include:
- Multi-purpose radiography systems for the examination of patients in the standing, sitting and lying positions
- Special digital chest radiography system for mass screening
- Low-dose full field digital mammography systems for screening, diagnostics and stereostatic biopsy
- Mobile chest and mammography units (mounted on a special insulated van body)
- Digital mobile X-ray systems for use in wards
- Whole-body radiography system for emergency use
- Digital fluoroscopy and radiography systems based on a remote-controlled table
- Panoramic and cephalometric dental systems

ADANI was founded in 1991 by Vladimir Linev, PhD, a full professor, and specialist in applied nuclear physics. As a scientist, inventor and author of over 150 patents, Vladimir Linev is a cutting edge engineer and entrepreneur focusing ADANI on innovation, effective R&D and agile manufacturing.

ADANI is a highly innovative knowledge-intensive industrial enterprise where innovations and technologies are converted into unique technical solutions and world class products.

For over 20 years ADANI has been involved in the research, development and manufacturing of hi-tech, science-based equipment for medical radiology, X-ray inspection, X-ray non-destructive testing, radiation control and ESR spectrometry.

Currently ADANI operates in 3 major fields:
- Medical X-ray equipment. ADANI offers new solutions for the intensively developing market of digital radiography and X-ray screening. The patented scanning technology of digital X-ray image acquiring forms the basis for the design of the majority of ADANI’s systems. This technology provides access to the most modern achievements and most effective results in this field for a wide range of users.
- Security screening and inspection systems. ADANI offers a unique model range of systems for body screening, baggage inspection, cargo and vehicles inspection. In 1998 ADANI patented and implemented the micro-dose X-ray projection technology for full-body screening. Today the CONPASS full-body personal X-ray inspection system has proved its high efficiency against crime and terrorism in many countries and has become a standard security device in several spheres of life.
- Analytical equipment. ADANI offers a unique automatically controlled compact single unit Electron Spin Resonance (ESR) spectrometer to serve various scientific and practical purposes, as well as compact gamma and beta analyzers for the examination of food and building materials.

ADANI receives over 50 patents worldwide illustrating that innovations are at the core of the company’s activity - the history of the company is actually the history of innovations.
The MAMMOSCAN system takes a special place in the Medical X-ray product line. Its award-winning design provides patients with exceptional comfort, while offering the smallest pixel size on the market giving confidence to the clinicians. MAMMOSCAN is the most recent result of decades of ADANI experience in the development of digital scanning technologies. Designed for comfort and ease-of-use, supplemented with a review workstation and equipped with an extremely reliable multi-linear scanning detector MAMMOSCAN is the optimal tool for more effective management of your increasing workload. A proprietary mammography image processing algorithm is included into the system.

The MAMMOEXPRESS mobile digital mammography unit has the potential to reduce breast cancer morbidity and mortality by improving access to screening for women in hard-to-reach or medically-underserved communities. With the potential to link the digital image transfer through to a specialist reporting center, it is also an opportunity to bring subspecialty breast imaging expertise to more of the population. MAMMOEXPRESS provides exceptional clinical value at a moderate cost.

The compact and robust design supplemented with a high heat capacity X-ray tube means that MAMMOEXPRESS is a unique offering for mobile mammography screening.

Detector:
- Maximum image size: 22 x 28 cm
- Image: 4096 x 5560 pixel
- Pixel dimension: 54 µm
- Resolution, not less than: 10 line pairs/mm
- Analog-to-Digital Converter: 14 bit

**Features:**
- 27 micron detector technology
- Resolution up to 20 line pairs per mm
- Automatic adjustment of the system parameters for each woman
- Resistibility to environmental factors

**Unit diagram**
- MAMMOSCAN
- Automation equipped working place
- Locker room
- Washstand
- Closet
- Generator
- Reception

**Features:**
- Extremely reliable even against external environmental factors
- 27 micron pixel technology for uncompromised imaging
- Unbeatable compact and robust design
- Quick return of investments due to effective cost and high throughput
The new generation of PULMOSCAN delivers stunning image quality for exceptional interpretation and diagnostics. PULMOSCAN is equipped with the new ADANI multi-linear detector. With pixels as small as 160 microns, PULMOSCAN is the perfect diagnostic tool for upright imaging.

With a high heat capacity tube and high frequency generator the total PULMOSCAN package offers exceptional clinical value.

Vehicle-based digital X-ray chest screening is in fact the best and in some situations, the only method available to reach these worst-affected parts of the population. Using the PULMOEXPRESS helps raise awareness of TB among high-risk groups and those who work with them.

The PULMOEXPRESS vehicle-based unit with the PULMOSCAN system on board aims to actively find cases of TB at an early stage of disease progression, before someone becomes infectious and can pass the disease to other people.

The PULMOEXPRESS includes the imaging modality and the supporting equipment for image interpretation and storage, plus the opportunity to link with remote reporting. Its robust design has proven that it is able to support a chest screening and early diagnostics of TB program for population groups in rural and hard-to-reach areas, as well as in industrial settings, military units, refugee camps and penitentiaries.

Vehicle-based chest screening solution:

- Extreme reliability against the external environmental factors
- 27 micron pixel technology for uncompromised imaging
- Unbeatable compacts and robust design
- Quick return of investment due to effective cost and high throughput

**PULMOSCAN**

- Detector:
  - Maximum image size: 41 x 41 cm
  - Image: 2560 x 2560 pixel
  - Pixel dimension: 160 µm
  - Resolution, not less than: 2.8 line pairs/mm

- Features:
  - High resolution
  - 41 cm by 41 cm imaging area
  - High duty components for continuous load
  - Small footprint

**PULMOEXPRESS**

- Unit diagram:
  - PULMOSCAN
  - Automation equipped working place, doctor
  - Automation equipped working place, operator
  - Waiting facility
  - Washstand
  - Locker

**Features:**

- Extreme reliability against the external environmental factors
- 27 micron pixel technology for uncompromised imaging
- Unbeatable compacts and robust design
- Quick return of investment due to effective cost and high throughput

MEDICAL SYSTEMS

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Versatile Radiography Unit

The UNIOPTIMA system was designed to offer you maximum efficiency at minimum cost. Equipped with a high-frequency generator, flat-panel detector, operator and radiologist workstations, comprehensive software package and an extended warranty period, UNIOPTIMA is a perfect turnkey solution for an imaging center with a moderate budget. With completely digital workflow and a robust design, UNIOPTIMA is an ideal workhorse for your radiography practice.

Digital Radiography U-Arm System

The UNIVERSAL system is an ideal combination of flexibility, technology and simplicity. Fully motorized patient positioning and remote control for easy operation are at your fingertips with a touchscreen technology. A combination of a top-quality flat panel detector, interchangeable grids, variable SID and advanced image processing algorithms gives you exceptional clinical value.

UNIVERSAL is a complete X-ray room built on a U-arm stand.

Features:
- Manual positioning for quick operation
- Exam-specific automatic adjustment of system settings
- Simple and effective for routine imaging
- Advanced image processing

Features:
- 43 cm by 43 cm flat panel detector
- Motorized automatic positioning
- Flexible geometry in bounded footprint
- Mobile patient trolley
The UNIEXPERT is a combination of fluoroscopy, radiography and the new way of thinking. Designed with the ability for completely motorized positioning and high-resolution imaging delivered to you in one unit. Now you can switch your attention from managing the system to managing the patient.

Using the dynamic flat panel detector, fluoroscopy examinations, general radiography procedures and direct radiography projections can be routinely made with single cost-effective detector.

The UNICOMPACT system helps you to deliver the care right to the patient. Its ergonomic design means that imaging can be taken to the patient in a wide range of clinical situations: patients in bed, first aid and emergency rooms, orthopedics and trauma consultations, pediatric and operating room.

The UNICOMPACT offers you a choice of generator power, easy maneuvering and remote control. With its inbuilt APR, UNICOMPACT makes the selection of exposure parameters easier than ever before.

**UNIEXPERT**

**Features:**
- Automatic positioning to reduce operator workload
- Motorized height adjustments and lowest minimum height for easy access
- Table loading capacity up to 230 kg
- 180 cm SID for uncompromised chest imaging
- Featuring wireless cassette-sized flat-panel detector
- Featuring a Dynamic Digital FPD for fluoroscopy

**UNICOMPACT**

**Features:**
- High frequency generator selection form 3 to 15 to 32 kW
- Safety interlocks for easy and safe operation
- Anatomically Programmed Radiography operation
- AEC (Automatic Exposure Control) chamber option is available

**C-EXPERT**

A mobile C-Arm surgical radiographic & fluoroscopic unit features a high-frequency pulse generator (4, 5, 10 kW) as well as rotating-anode tube and a range of image intensifiers between 9 and 12 inch. The C-EXPERT unit enables continuous & pulsed fluoroscopy, angio & vascular applications and digital radiography and fluoroscopy with memory and storage.
The UNIEXPERT 2 PLUS is a well-featured radiographic system, available in both analog and digital versions, designed to meet extraordinary expectations in performance and effectiveness. With minimum installation building and electrical preparations, you receive maximum functionality and high image quality.

The UNIEXPERT 2 PLUS offers comprehensive functionality, including automatic collimation, tracking and move to positioning, automatic selection of exposure parameters and a tomography option.

This system is available with a wireless or a built-in digital flat-panel detector.

Features:
- Standard configuration to meet most radiographers requests
- Automatic positioning and collimation
- High-frequency generator with touch-screen control
- Upgradable with digital flat panel detector, ceiling suspension system and advanced image processing algorithms
- Wireless cassette-sized flat-panel detector

Thanks to durability and reliability, the UNIEXPERT 3 PLUS ensures the best examination application in busy radiology departments. Specially designed for excellent performance, the system features a bucky table with floating table top, an X-ray tube mounted on the column, a vertical bucky stand and a motorized counter-balanced tilting table for fluoroscopy application – an ideal choice for all routine fluoroscopic and radiographic examinations.

Features:
- A robust radiographic bucky table
- Motorized tilting
- Automatic collimator and spot-film device
- Wide range of movements

Features:
- Standard configuration to meet most radiographers requests
- Automatic positioning and collimation
- High-frequency generator with touch-screen control
- Upgradable with digital flat panel detector, ceiling suspension system and advanced image processing algorithms
- Features a wireless cassette-sized flat-panel detector
SCREENEXPRESS RH is a vehicle-based diagnostic unit which can provide reproductive system screening diagnostic for men and women. Perfectly configured and build it makes the working process safe and comfortable. The low-dose digital mammograph MAMMOSCAN provides extraordinary breast cancer screening result.

Main components:
- Low-dose digital mammograph MAMMOSCAN
- Low-dose digital fluorograph PULMOSCAN

Features:
- Extreme reliability to the external environment factors
- 27 micron pixel technology for uncompromised imaging
- Unbeatable compactness and robust design
- Quick return of investments due to effective cost and high throughput

CANCER REVEALING:
- Breast
- Prostate
- Colorectal
- Cervical
- Skin

Vehicle-Based Cancer Screening Unit

Main components:
- Low-dose digital mammograph MAMMOSCAN
- Low-dose digital fluorograph PULMOSCAN

Unit diagram

Features:
- Extreme reliability to the external environment factors
- 27 micron pixel technology for uncompromised imaging
- Unbeatable compactness and robust design
- Quick return of investments due to effective cost and high throughput