

## Shimadzu Medical Imaging Systems



Evolution, Innovation, Transformation solving challenges together

Shimadzu Business Fields

Medical Imaging Systems

With its corporate philosophy

"Contributing to Society through Science and Technology," Shimadzu contributes to the realization of a more convenient, safe, and secure society.



### Medical Imaging Systems





#### Cardiac & Angiography System

Shimadzu cardiovascular and angiography systems provide outstanding image quality and various applications. The better visibility achieved by our systems and practically valuable realtime applications will enhance the safety and efficiency in your interventional procedures and reduce X-ray dose levels.



### R/F System

Shimadzu has extensive experience in this field since our development of the world's first remote-controlled R/F table system in 1961. Combining our multi-functional table unit with latest digital imaging technology, our systems achieve excellent image quality and operability for DR, Barium, Endoscopy, Urological, Gynecological, Orthopedic and Bariatric studies etc.



Mobile C-arm Imaging System

To meet the demands of modern OR and ER, Shimadzu has provided the OPESCOPE with superb operability. The latest ACTENO is the pinnacle of our evolving OPESCOPE-series developed from customer feedback in our ongoing pursuit for better performance and enhanced functionality.



### Radiography System

Radiography systems are the must have items to be used most frequently in radiology department. Therefore ease-of-use, high productivity and durability are vital.
Fulfilling these requirements, we have a wide range of solutions to best meet your needs.



Mobile X-Ray System

Countless Shimadzu "MobileDaRt" and "MobileArt" are used all over the world. With our latest "Evolution" series full of innovations, we deliver you further advancements in mobile imaging performance and workflow.



### Molecular Imaging System

"PositView" TOF-PET system provides dedicated head and breast PET imaging function. By changing the detector position, both head and breast examinations can be performed. The high-performance "SiPM" detector achieves high sensitivity and high-resolution image. It provides high image quality that cannot be obtained with whole-body PET-CT systems.

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## Trinias series with SCORE Opera

Shimadzu redesigned the workflow of our Trinias™ angiography systems to offer improved solutions for the challenges currently facing medical treatment centers and to address the challenges that they will face in the future, through ALARA Design, Lean Design, and Sustainable Design.

Shimadzu, a leader in healthcare technology, has moved medical treatment another step closer to the future.



Based on the concept "As Low As Reasonably Achievable (ALARA), the aim is to minimize the mental stress on personnel and patients by not only reducing X-ray dose levels but also by improving treatment precision with improved image quality.

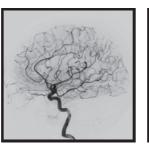


Offer intuitive and flexible operations for achieving optimal workflows and shorter procedure times. Aim to create a comfortable working environment by designing products that support the flexibility needed to be operated by various personnel, regardless of their expertise level.



Always achieve a state-of-the-art environment by offering a platform for growth that can maintain pace with rapid technological advances and ensure products do not become obsolete before the end of their

service life. Aim to support hospital management by offering future expandability while minimizing operating costs and downtime with product design that eliminates waste and provides continuous after-sales services.







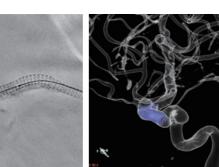


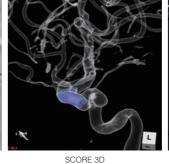
### Expandable Applications OPTION

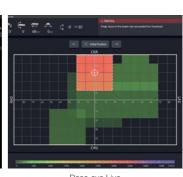
Shimadzu's unique applications support state-of-the-art interventions and expand your clinical possibility in the future.

- SCORE RSM: DSA free from motion artifact and mask acquisition
- SCORE Chase: Automatic stitched image covering whole blood vessel running in legs
- SCORE StentView: Dynamic device enhancement to support accurate stent placement
- · SCORE StentShot: Providing more detailed structure of stents
- SCORE 3D: High-speed 3D acquisition, automatic reconstruction
- SCORE CT: CT-like imaging during interventional treatment
- SCORE Navi: Fusion between fluoroscopy and 3D image
- Multimodality Q/R: Retrieve and utilize CT/MRI image and Virtual Stenting Simulation
- Flex-APS/AMC: Misregistration for DSA and roadmap is corrected pixel by pixel in real time
- SCORE Stream: Support for evaluating treatment effects using color maps from DSA images
- Does-eye Live: Dose map that displays the maximum entrance surface dose

You can optionally configure these applications upon your needs.









Dose-eye Live

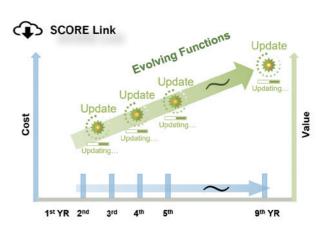
### SMART Voice OPTION **Operation with Voice Recognition**

SCORE StentShot



SMART Voice is a hands-free voice interface that can be operated by the operator. It allows the operator to operate images and perform applications while concentrating on the screen, thus increasing work efficiency without using levers or

### SCORE Link OPTION **Growing application platform**



SCORE Link is a subscription package for Trinias applications that enables annual renewals for updates and new features, enabling users to use the latest technology and reducing initial costs.

Patient-side R/F System

## FLUOROspeed X1 edition

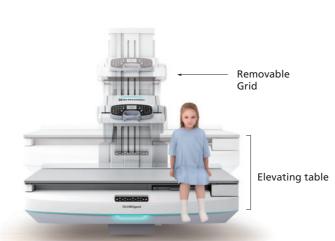


FLUOROspeed X1 edition is thoughtfully designed to accommodate a wide range of users and clinical environments, making it ideal for various examinations including barium studies, orthopedics, radiography, pediatric imaging and bariatric imaging.

- GLIDE ASSIST technology enables smooth, effortless operation by minimizing the feeling of gravity. The GLIDE ASSIST handle allows easy positioning of the imaging chain, whether the table is in a horizontal or upright position.
- · The imaging deck can be parked at any position, supporting a stress-free and efficient workflow.
- Equipped with SCORE PRO Advance, the latest in digital image processing, the system provides an optimal balance between fluoroscopic image quality and radiation dose.

### Responding to a wide range of clinical needs

The elevating table makes it easy to transfer patients onto the table. Max. 31.5" (80 cm) wide space provides better comfort to patients in swallowing studies.







Low exposure Level and optimal image quality

### **SCORE PRO Advance**

Reduces background noise components in real time to emphasize only the target area. SCORE PRO Advance offers exposure dose reduction and improved fluoroscopic image quality.

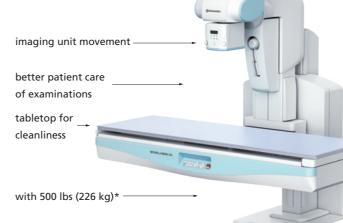
### User Friendly – Stress-free system maneuverability

GLIDE ASSIST technology allows an operator to easily move the imaging deck in all directions. Unlike other R/F table systems, the deck can be parked in any position, providing stress-free workflow.





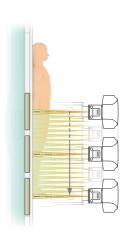
## Shimadzu "Univ ersal R/F" Family



\*optional for SONIALVISION G4

### Slot Radiography OPTION

Slot Advance produces a long image for full spine or full leg etc. in a simple and fast workflow. The unique "Slot Collimation" method provides highly accurate measurements, suitable for orthopedic procedures.





### Multi-purpose Digital R/F System

### SONIALVISION G4



R/F System

A true "Multi-purpose" system, SONIALVISION is designed to handle a broad range of examinations — including orthopedics, radiography, barium studies, endoscopy, urology, and angiography. It delivers outstanding image quality to support diverse clinical procedures, while significantly enhancing the productivity of your

- Powered by SCORE PRO Advance and a superfine FPD, the system delivers outstanding images with reducing radiation
- Its over-2-meter longitudinal coverage, 180 cm SID option, and Smart FOV feature allow for safe and flexible imaging—often without moving the patient.
- Ready for the future, the system can be easily upgraded with advanced applications like Tomosynthesis, Slot Advance, Smart FOV. and RSM-DSA.

### Tomosynthesis OPTION

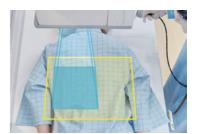
Tomosynthesis generates multiple slice images from a single tomographic scan, providing valuable clinical information with a lower radiation dose than CT. It supports standing position imaging, assists in the assessment of microfractures, and enables orthopedic imaging with reduced metal artifacts, even in patients with artificial joints.





### Smart FOV OPTION

Smart FOV enables precise field-of-view adjustments without moving the tabletop. It enhances safety and efficiency in procedures involving puncture, ERCP, and swallowing studies by allowing dynamic repositioning and zooming of the region of interest, even with devices inserted. By allowing dose-free positioning, it helps reduce unnecessary radiation exposure.



Smart FOV: Precise Dose-free Adjustment Without Moving the Tabletop

FPD Remote Controlled R/F System

### FLEXAVISION F4 package

FLEXAVISION F4 package is the latest model in our FLEXAVISION series. This high-performance system enhances flexibility in fluoroscopic examinations and offers extensive capabilities in general radiography with a large field of view and a wireless FPD.

- $\cdot$  The 17×17-inch FPD is detachable from the table, allowing for wireless radiography anywhere in the examination room.
- The compact design of the F4 maximizes space efficiency, enabling more effective use of both the examination and control rooms, thus improving your daily workflow.

### **Customizable examination room** configuration for your needs

FLEXAVISION F4 offers flexible room layout combining with Bucky stand, ceiling-mounted X-ray tube, and 2nd FPD. Your fluoroscopy room can also function as a radiography room to improve productivity.



### **Wide Range of Clinical Application**

17×17-inch large FPD and variety of useful functions support wide range of examinations.



Radiography on the table





Single panel solution enables 2-in-1 system OPTION

FLEXAVISION F4's lighter, detachable, wireless FPD transforms

the digital R/F unit into a 2-in-1 system that can perform both



Radiography with bucky stand

GI examinations with Swallow studies in enough space

### Remote Controlled R/F System

### FLEXAVISION HB/FD package eXceed edition

FLEXAVISION HB/FD package offer a diverse range of Image Intensifier-based systems, allowing you to choose the ideal solution for your needs from various functionalities and configurations. They are value-added digital imaging unit that enhances diagnostic accuracy.

- By extending the SID to 1.5m, the optional elevating table and oblique X-ray projection increase the system's flexibility.
- · HB package features a Spot Film Device that allows for precise radiography timing, capturing the region of interest by moving the cassette from the "park" position to the "exposure" position almost instantly.



#### Mobile C-arm Imaging System

### SC15

### Comfortable viewing environment

The 43-inch large LCD monitor ensures a comfortable viewing experience for all medical staff, allowing them to see images clearly and effortlessly.

### **Exceptional Image Quality**

15 kW high-power generator and rotating anode X-ray tube provide superior image quality.



Intuitive operation

The user-friendly interface allows for intuitive and simple operation, making workflow seamless.







diagnosis FPD's distortion-free

Supporting daily

Mobile C-arm System

wide images enhance diagnostic accuracy and reduce procedure time.

Orthopedics / Pain management



Versatile examination with a single unit



### **DSA** (Digital Subtraction Angiography)

Providing valuable information for clinical diagnosis and procedures.

Mobile C-arm Imaging System

### OPESCOPE ACTENO FD type





Easy to view for the doctor, and easy to use for the operator.

### Simple and Smart Operability

The OPESCOPE cleverly designed operability meets the challenge of "how to reduce stress for doctors and surgical staff."

### Compact Design for Easy & Stable Mobility

The compact, carefully designed C-arm unit offers excellent mobility and is surprisingly light and smooth to move.

### Low Dose x High Image Quality / Real-time Image Processing

SCORE PRO Advance instantly displays low-dose, high-quality images optimized for each surgical site and procedure on the monitor.

\*The Image Intensifier type is also available.



Radiography System

## RADspeed Pro

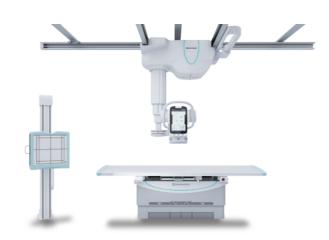


SR5 Version

### **Empowering Your Vision**

All visions are designed for achieving a better examination environment.

Increasing examination efficiency by standing closer to patients and reducing the burden on medical personnel. Shimadzu offers various solutions for achieving easy-to-use and comfortable examination environments that address the challenges and needs of a wide variety of healthcare





The POWER GLIDE™ will assist X-ray tube positioning by motors and reduce technologists' burdens and increase your patient throughput.



### Auto Positioning OPTION

The auto-positioning feature is interlocked with the APRs. Effortless tube positioning allows the operator to focus on patient



### Speed Stitch OPTION

Intelligent Auto-stitching radiography provides a long leg or a whole spine image quickly, without any complicated



\*Speed Stitch, Auto Positioning and POWER GLIDE™ are available only with certain configuration of RADspeed Pro and DR/FPD choice.





### The Vision Reflects New Possibilities

The Video image from a camera built into the collimator is displayed on the X-ray tube support control panel and high-voltage generator control panel monitors. The optical camera application provides an environment where medical personnel can focus on patient care.



(Manual, Ceiling-suspended type)

### Radiography System RADspeed fit

This radiography system integrates ease-of-use features from top-class systems in a simple manner. With its high image quality due to the large output power and simple operability, this system provides a sense of ease and comfort operation for users.

- Two types of high power generator 32 / 56 kW
- · Excellent usability for multi-purpose examinations.
- Wide range X-ray tube column movement
- 4 way floating table
- X-ray tube column swivel
- The RADspeed fit can be configured with DR upon your needs.



minimum of only 2.7 m x 1.8 m.

- This system's space-saving compact design requires a
- · A one-touch guide assists the operator for optimum productivity.
- · Easily accommodated in a variety of locations, this system can be operated using only houseline 100 V - 240 V AC power.







Digital Radiography Mobile X-ray System

## MobileDaRt Evolution





MX9 Premium Version

### Vision on the move

Embracing the challenge, Moving into new possibilities





### **Secondary Workspace**

Second Monitor can serve as a secondary workspace to enhance workflow efficiency and provide essential information for dose management.

### Camera Applications OPTION

The live view obtained by the Live View camera, along with SID and X-ray tube angles, can be displayed on a second

Supports precise positioning and contributes to reducing the frequency of retakes.

#### X-ray images display

The captured image is shown on the second monitor after exposure. Possible to confirm the image for the verification of positioning.

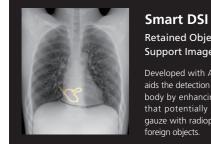
### Laser Navigation OPTION

Equipped with a cross laser marker on the collimator. When the X-ray tube reaches the proper angle range, the corresponding laser marker lights up, supporting appropriate tube angle during positioning.





### Al Solution OPTION



### **Retained Object Confirmation** Support Image Processing

Developed with AI technology, Smart DSI aids the detection of objects retained in the body by enhancing regions of the image that potentially show surgical needles, gauze with radiopaque threads, and other foreian obiects.



### **Smart Tube** Tube and Catheter Verification Support Software

Developed with AI technology, Smart Tube enhances potential areas of tubes and catheters from images, supporting position

Function availability may vary by product model. For more details, please contact your sales representative.

### Digital Radiography Mobile X-ray System

## MobileDaRt Evolution

### MX9 Standard Version

With flexible DR/FPD combination, collapsible column and power-assist functionality, MobileDaRt Evolution provides ideal workflow and clinical functionality for ward rounds, ICU, NICU, emergency rooms or operating rooms.

- · Responsive and maneuverable mobility
- 19" large viewing monitor for enhanced functionality
- · Quick image review after capturing an X-ray image
- Selection of combinations of various applications, FPDs with built-in-AEC, and lightweight FPDs depending on the type of DR





### Motorized Mobile X-ray System

# MobileArt Evolution

With the same collapsible column and power-assist functionality designed for our high-end model, MobileArt Evolution offers superb operability and far more motive

- · Ready for your CR or DR workflow
- Provides a space to place your own laptop for DR, etc. to fit the needs of your facility.
- · Offers generator power choice, Max 32 kW or 12.5 kW.



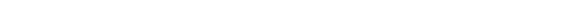
MobileArt Evolution MX8 Version

#### Manual Driven Mobile X-ray System

### MOBILEART eco [MUX-10]

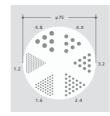
Offering user friendly functionality and essential features for high performance, MobileArt eco allows to perform comfortable radiography examinations.





### PositView SET-5002 Positron Emission Tomography System



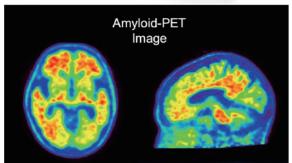


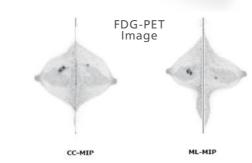
MiniDrenzo (Hot)

**Head Scan Mode** 









The TOF (Time of Flight) PET system, dedicated to head and breast examinations with SiPM (Silicon Photomultiplier) detector, provides excellent spatial resolution as compared to conventional whole body PET systems. This system is able to scan brain tumors, epilepsy and breast cancers with outstanding accuracy and even support Alzheimer's and other dementia researches. \*Clinical image courtesy of Kindai University Hospital, Osaka Japan.

# Advanced Healthcare



As a pioneer in medical imaging and a leader in analytical solutions such as mass spectrometry, Shimadzu has been working to develop new and unique healthcare solutions that will significantly change the future of healthcare, collaborating with various international researchers as well. Our aim is to support your health in total lifetime from prevention, diagnosis, treatment and prognoses, and we call its challenges and activities as "Advanced Healthcare" utilizing our professional experiences and innovative technologies from both fields of medical imaging

Shimadzu will strongly continue its efforts for "Contributing to Society through Science and Technology", which is the unchanged corporate philosophy of ours.



Since 1875, Shimadzu has continued to open up new frontiers in various fields of science and technology with our corporate philosophy: "Contributing to Society through Science and Technology". These are our milestones in the medical imaging fields.

1896

1909

1918

1927

1961

1969

1990

2003

2004

2005

2013

2014

2021

2022

2024

2025



Radiographs taken at Shimadzu (First in Japan)









PositView



Trinias series with SCORE Opera



RADspeed Pro SR5 Version

Succeeded in taking X-ray pictures first in Japan.

#### Japan's first medical X-ray system

Shimadzu completed and installed Japan's first medical X-ray system at a hospital in Chiba prefecture (today's National Center for Global Health and Medicine).

#### X-ray apparatus "Diana"

Mechanical full-wave rectification system, with a capacity of 120 kVp and 100 mA. Dominated Japan's radiography industry at that time.

Opened the first institution in Japan to train radiographers, which became "Kyoto College of Medical Science" today.

#### World's first remote-controlled R/F system

Developed the first fluoroscopy table system to control remotely from another room, which saved doctors/operators from X-ray exposure.

#### Zoom image amplifier

Continuous zooming was made possible for the first time in the world from a 11-inch to a 5-inch viewing field. Winner of Ohm's Award for 1971.

Developed the elevating remote-controlled cassetteless R/F system SHIMAVISION 3500 first in the world.

Developed digital cardiac system DIGITEX safire incorporating direct-conversion FPD first in the world.

Tomosynthesis, digital multi-slice tomography technology was equipped on R/F systems fist in the world.

Developed digital Mobile X-ray system MobileDaRt, incorporating a portable FPD first in the world.

Developed digital angiography system with real-time stent enhancement technology first in the world.

Digital Universal R/F system SONIALVISION G4 with Slot Radiography and Tomosynthesis, released.

The world's first TOF-PET system specialized for head and breast, released.

Digital Angiography system Trinias series with SCORE Opera, released.

Radiography system RADspeed Pro SR5 Version, released.

150th Anniversary of Shimadzu Corporation. Mobile X-ray sysytem MobileDaRt Evolution MX9 Version, released. Mobile C-arm system SC15, released.



Large-size medical X-ray apparatus (1911)



Institution to train radiographers (First in Japan)



MobileDaRt



SONIALVISION G4



Corporation 150th Anniversary



Founded in 1875, Shimadzu Corporation, a leader in the development of advanced technologies, has a distinguished history of innovation built on the foundation of contributing to society through science and technology. We maintain a global network of sales, service, technical support and applications centers on six continents, and have established long-term relationships with a host of highly trained distributors located in over 100 countries. For information about Shimadzu, and to contact your local office, please visit our website at www.shimadzu.com



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Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2015 Quality Management Systems and ISO13485:2016 Medical Devices Quality Management Systems.

#### Remarks:

- Every value in this catalogue is a standard value, and it may vary a little from the actual at each site.
- The appearances and specifications are subject to change for reasons of improvement without notice.
- Certain products or configurations may not be available in some regions due to regulatory reasons etc. Some features/items can be optional items. Contact your local Shimadzu representative to confirm those details.
- Before operating this system, you should first thoroughly review the Instruction Manual.