SHIMADZU
Excellence in Science

C504-E038

Mobile X-ray System

# MobileDaRt Evolution

## MX9 Premium Version C

# Vision on the move

Embracing the challenge, Moving into new possibilities

## MobileDaRt Evolution™

### MX9 Premium Version C

Discover new possibilities in healthcare.
With precision and compassion, our innovative solution
offers a new approach to everyday patient care.

*Scan me, >*

# Empowering Your Vision

## Leveraging Productivity with Camera Applications OPTION

### The Vision reflects New Possibilities

## VISION SUPPORT

Displays the live view captured by the 3D camera on a second monitor along with SID and X-ray tube angles, supporting precise positioning.

### Preparation for Radiography

## Secondary Workspace

- Display Patient Information
- Change Exposure Protocol
- Edit Exposure Condition
- Entrance Dose Measurement*)

*) 3D Camera option is required

Scan me, >

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

### Positioning

## Camera Applications OPTION

- SID Measurement
- Live View Display
- X-Ray Tube Alignment Support
- Laser Navigation*)

*) Cross Laser Marker option is required

Scan me, >

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

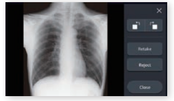
Supports precise positioning and contributes to reducing the frequency of retakes.

### After Exposure

## X-ray images display

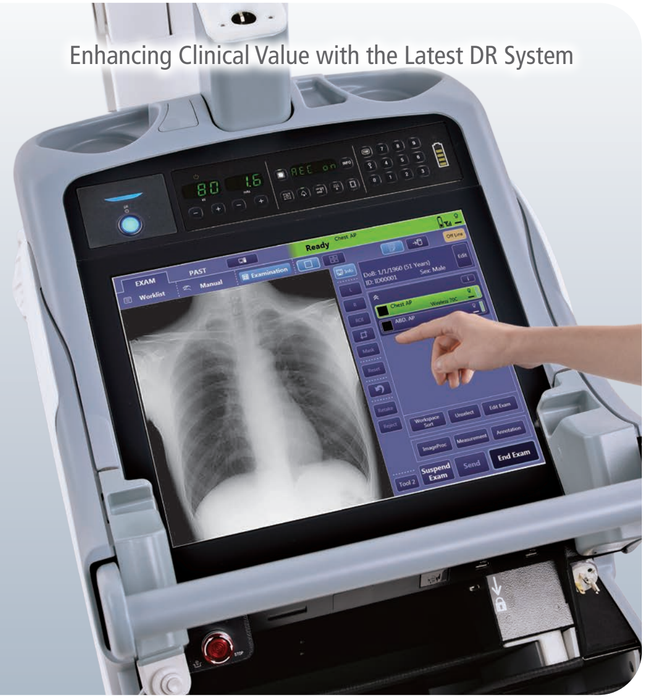
Scan me, >

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



# New Clinical Value

## Enhancing Clinical Value with the Latest DR System




### Improves Workflow with a Second Monitor

Allows adjustment of exposure parameters and check of patient information. The X-ray Images are also displayed after exposure.

### Easy-to-use Large Touch Monitor

Equipped with a 19-inch touch panel monitor. Compared to standard laptop monitors, images are easier to view and touch operation is smoother.

### Scatter Correction enables Gridless Radiography OPTION

The system can be equipped with a function to remove scatter noise and improve image contrast, making it possible to perform exposures without the use of a grid therefore making it easier to handle FPDs.

### Built-in AEC Assistance*1) OPTION

The FPD is equipped with Automatic Exposure Control (AEC) assistance to support the dose reduction for daily hospital rounds.

*1) Only available for systems configured with CXDI-Elite. Please contact your sales representative regarding the availability.



# Glide with Clarity

GLIDE VIEW function

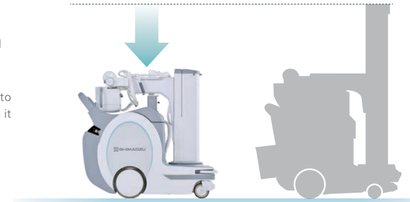
### Intuitive Maneuverability, 360° Agility

Scan me,

Optimized power assist system delivers natural light touch driving whether moving forward, stopping quickly or changing directions. It's also possible to turn on the spot. The system maneuvers easily and naturally to support comfortable operation.

### Great forward Visibility offering Peace of mind

The collapsible column has been developed to enhance forward visibility during travel, making it ideal for daily hospital rounds.



SHIMADZU's former Mobile X-ray system

## Enhancing Your Workflow

### Adjustable handle height OPTION

The handle height can be adjusted anytime based on the operator' s comfort level and preference.

### Wireless Solution for Exposure Switch*) OPTION

A wireless hand switch or IR remote controller allows you to perform exposures remotely for even more ease-of-use.

Wireless hand switch

IR remote controller

## Heightened Security

### Keyless Entry OPTION

Instead of a key, each user can have their own password enabling accessibility to preferences and preset X-ray parameters. This further enhances security and workflow.

### Anti-theft FPD lock function

FPD storage bin is equipped with a detector lock function that can heighten the security level against FPD theft.

### IC card Login*) OPTION

A multiple user's IC card can be registered in advance. Simply passing over card reader will boot up the system.

*) Availability of the option depends on the regional radio wave regulation. Please contact your sales representative regarding the availability.

## VISION SUPPORT

### Laser Navigation OPTION

Scan me,

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.

### Convenient Battery Charging Process

The conveniently accessible power plug is located just under the handle bar on the back side of unit.
The FPD can be charged in the main unit via a connector in the FPD bin. (option)

### Entrance Surface Dose Display*) OPTION

Calculates and displays the estimated entrance surface dose based on the set exposure parameters and the distance to the patient, before and after exposure.

*) 3D camera option is required

## Operate From Any Position

### Easy Positioning from anywhere

Scan me,

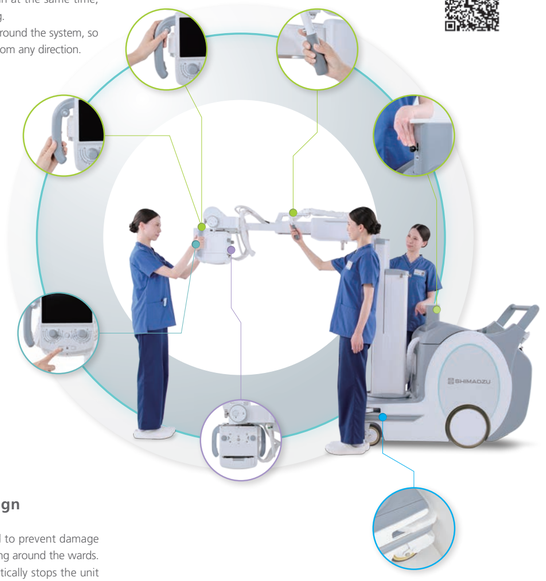
Pressing the "All-Free" button releases the electromagnetic locks for the telescopic arm and column at the same time, thus enabling simple one-step positioning.
Multiple "All-Free" buttons are located around the system, so the technologist can access the system from any direction.

### Inch-Mover for Bedside Positioning

The main unit can be moved forward or backward with switches conveniently located on the collimator.
The technologist can adjust positioning more precisely without moving around the patient bed.

### Field of view Collimation by dual side controls

The collimator knobs and lamp button are located on both the front and the back side, allowing the technologist to easily confirm and change the irradiation field.



### Shock-resistant body design

The body cover has been strengthened to prevent damage should the unit hit an object when moving around the wards. The unique soft-touch bumper automatically stops the unit when even the slightest pressure is detected.

# Intensive Care Units

Flexible Operability in Confined Spaces

## ICU

### Configure Settings Easily Even in Tight Spaces

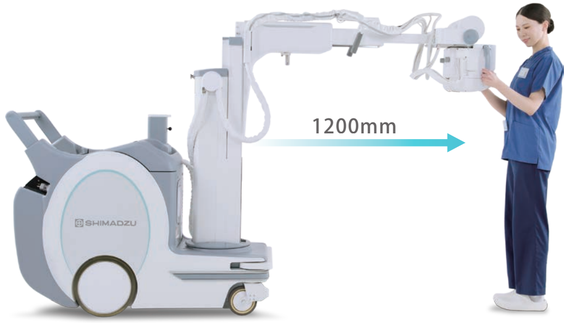
The compact body is only 56cm wide, making it easier to maneuver even with limited space. With the collapsible column, collision with tall medical accessories such as IV poles and other devices can be prevented.

*Scan me, >*

### Wide Exposure Range

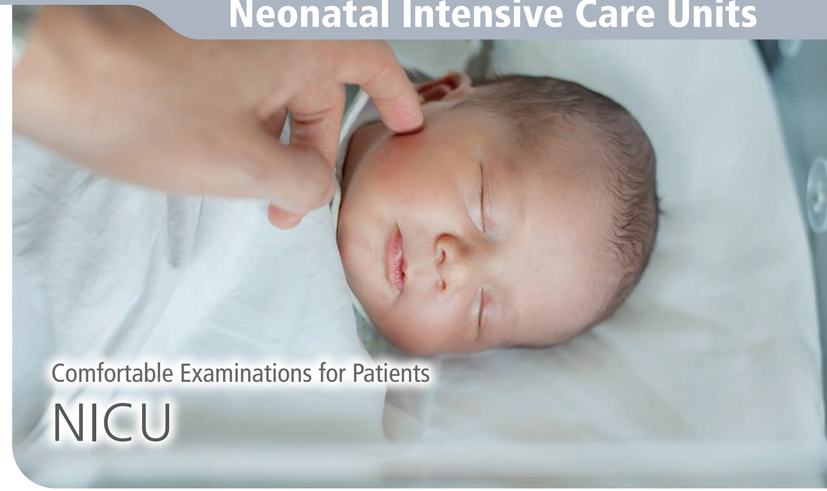
The system is especially useful for imaging in ICUs, where there are numerous devices around the patient. With the low profile X-ray tube and the 1200 mm extension telescopic arm, the MX9 easily positions for patient imaging.

*Scan me, >*






# Neonatal Intensive Care Units



Comfortable Examinations for Patients

## NICU

### Compact FPD for Pediatric Care

The compact FPD fits inside the cassette tray of an incubator.

### Designed to Minimize Radiation Exposure

The estimated Dose Area Product (DAP) is displayed prior to exposure, and the calculated DAP value is stored for post-exposure management. (measured DAP instrument is optional.)

### Pediatric Filter*) Supported

In order to cut soft X-rays that do not contribute to image acquisition, the pediatric filter can be installed in the collimator. Using a filter reduces radiation exposure efficiently while image quality is maintained.

*) The pediatric filter itself is not an optional item. Please use one belonging to your facility.

# Emergency Room

Designed for Quick Action

ER

## Excellent waterproofing

The FPDs conform to the IP57-rated*) water proof standard to prevent ingress of liquids.

*) Waterproof property depends on the FPD models.

## Minimal Startup Time for Emergency Needs

System startup takes only one minute and is immediately ready for use in emergency conditions.

## Designed for Sterile Equipment Covers

For daily use, extra storage spaces are provided to store wipes, pens, markers, etc. Grooves have been added for holding the FPD vertically while putting a sterile cover on the unit.

## High power 32 kW output

The 32 kW maximum power output delivers excellent image quality and short exposure times. This ensures sharp images with minimal blurring, even if the patient moves.

# Operation Room

## Integrated Design for Easy Clean-up

The flat screen design makes it easy to clean and maintain hygiene.

Meeting the Needs for Surgical Environments

OR

## Smart DSI : Retained Object Confirmation Support Software OPTION

Display images processed by Smart DSI
(Detection Support with Image processing) on the main monitor.*1)

Acquired image data

Processed image by Smart DSI

**Smart DSI**

**Retained Object Confirmation Support Image Processing*2)**

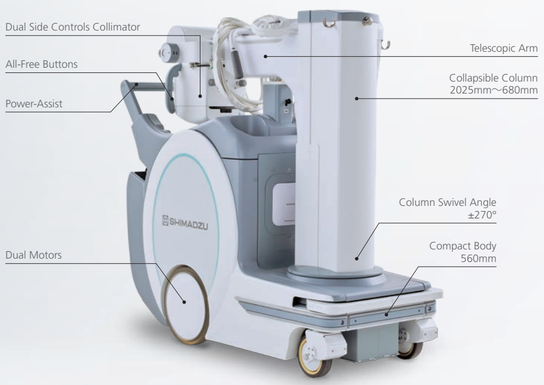
Developed with AI technology, Smart DSI aids the detection of objects retained in the body by enhancing regions of the image that potentially show surgical needles, gauze with radiopaque threads, and other foreign objects.

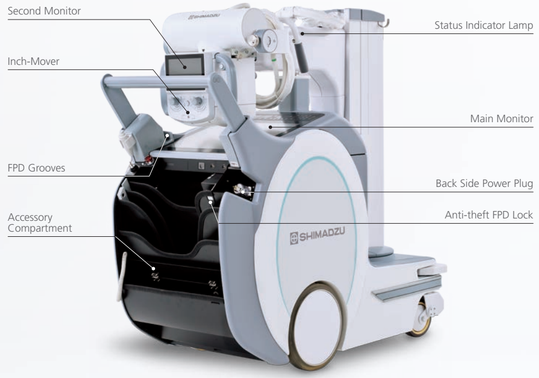
Scan me, >

*1) Do not rely solely on the imaging processing capabilities of Smart DSI when determining if foreign objects are retained in the patient. Use visual confirmation of images, gauze counts, and other methods in reaching a final judgement.

*2) The AI (artificial intelligence) technology used in Smart DSI is not a self-guided interactive learning-type AI.

# System




## Optional features

*) The options listed are not comprehensive.

- Keyless entry
- IC card Login
- Barcode reader (Wireless or wired)
- Wireless LAN
- Adjustable handle kit
- 3D Camera
- Cross Laser Marker

- FPD wired connection kit
- Built-in AEC Assistance
- Smart DSI
  (Retained Object Confirmation Support Software)
- DAP meter mount kit *1)
- Protective screen (folding) *2)

- Additional hand switch
- Wireless hand switch
- IR Remote Controller *2)
- Luminous hand switch

Decoration Label : Sweet Animals

The photo is an example of the sticker application.

*1) Physical DAP meter can substitute calculated dose function, when needed.
*2) Those options cannot be combined at the same time.



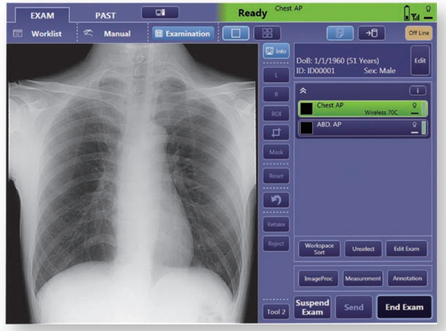
# Product lineup

Two versions are available for selection depending on needs and purposes.

## Premium Version

- Second Monitor Integrated
- 3D Camera (option)

## Standard Version




# DR System CXDI series

CXDI-420C
CXDI-720C
CXDI-820C
Wireless

CXDI-403C
CXDI-703C
CXDI-803C
Wireless

*The available FPDs vary depending on the country. For more details, please contact your sales representative.

Label Description: Mobile X-ray System MobileDaRt Evolution

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**

SHIMADZU


Shimadzu Corporation

**Headquarters**
1, Nishinokyo-Kuwabara-cho, Nakagyo-ku, Kyoto 604-8511, Japan
**https://www.shimadzu.com/med/**


TÜVRheinland CERTIFIED
Management System
ISO 9001:2015
ISO 13485:2016
www.tuv.com
ID 0091004755

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.
- Items and components in the photos may include optional items. Please confirm with your sales representative for details.
- System configurations and options may not be available depending on the country. Please confirm with your sales representative for details.
- Before operating this system, you should first thoroughly review the Instruction Manual.
- MobileDaRt Evolution and Smart DSI are trademarks of Shimadzu Corporation or its affiliated companies in Japan and/or other countries.
- Company names, products/service names and logos used in this publication are trademarks and trade names of Shimadzu Corporation, its subsidiaries or its affiliates, whether or not they are used with trademark symbol “TM” or “®”.
  Third-party trademarks and trade names may be used in this publication to refer to either the entities or their products/services, whether or not they are used with trademark symbol “TM” or “®”.
  Shimadzu disclaims any proprietary interest in trademarks and trade names other than its own.


Printed in Japan 6032-02512-MF