

# MobileDaRt Evolution

Mobile X-Ray System  
[Wireless FPD Type]



# Advanced Digital Mobile System with Wireless FPD for Greater Ease-of-Use

## MobileDaRt Evolution (Wireless FPD Type)

The speed of operation of this system in fields demanding rapid intervention, such as emergency and pediatric medicine, by virtue of the 3 second immediate display time for images at the console, provides excellent clinical worth.

The new wireless FPD expands your choices and allows easy positioning in restricted spaces when combined with the intuitive movements of the MobileDaRt Evolution.

The MobileDaRt Evolution is a reliable state-of-the-art system that evolves your daily workflow and expands your clinical possibility.



Ideal Choice for Your Stress-Free Mobile Examinations

### Wireless FPD Unrestricted Movement

Image verification  
3 seconds after  
exposure ensures  
a smooth workflow

High resolution images  
with low X-ray  
exposure - Ideal for  
Neonatal and Pediatrics

High power  
minimizes the  
impact of patients'  
motion artifact

User-friendly design  
ensures quick positioning  
and smooth,  
responsive mobility



# Wireless FPD Lineup

## Wireless FPD makes handling easier

The wireless FPD makes it easy to maintain the system asepsis in the operating room or infectious diseases ward. The system offers excellent positioning, with no concerns about cables.

## Low dose for patients with high image resolution

Highly sensitive wireless FPD ensures low dose for patients.

### GOS Type

Field-of-View 42 cm x 42 cm (17 x 17 inch)  
 Pixels 2816 x 2816  
 Pixel Pitch 150 μm  
 Grayscale 16-bit  
 Weight 4.0 kg (9 lbs) (battery included)



Field-of-View 43 cm x 34 cm (17 x 14 inch)  
 Pixels 2880 x 2304  
 Pixel Pitch 150 μm  
 Grayscale 16-bit  
 Weight 3.2 kg (7 lbs) (battery included)



### Csl Type

Field-of-View 43 cm x 34 cm (17 x 14 inch)  
 Pixels 2880 x 2304  
 Pixel Pitch 150 μm  
 Grayscale 16-bit  
 Weight 3.6 kg (8 lbs) (battery included)



Field-of-View 28 cm x 23 cm (11 x 9 inch)  
 Pixels 1920 x 1536  
 Pixel Pitch 150 μm  
 Grayscale 16-bit  
 Weight 1.9 kg (4 lbs) (battery included)

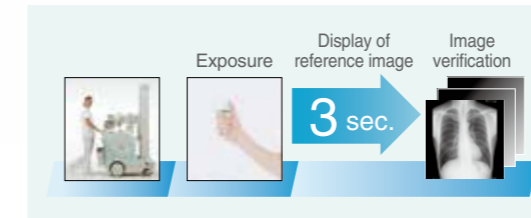


Battery charger



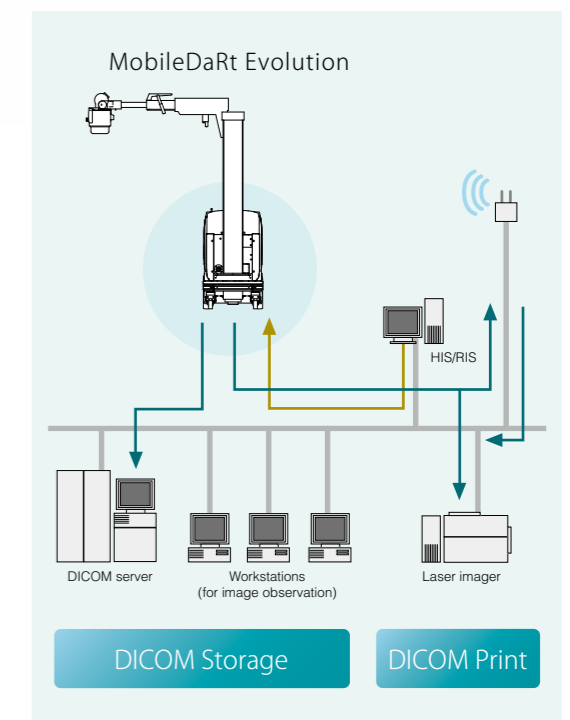
## Images can be viewed 3 seconds after exposure

Display images in just 3 seconds which is especially useful in emergency rooms (ER) where time to treat is critical for saving lives or reducing paralysis. The ER staff can see diagnostic images on the on-board reference display for preliminary diagnosis, allowing treatment to continue without delay. Unlike CR which requires reading and repositioning, DR enables examining a large number of patients in a relatively short time. Time to make a diagnosis and treat patients is dramatically reduced by allowing the doctor to see images quickly.



## Easy output of DICOM data to network

Standard MobileDaRT Evolution features include support of DICOM worklist, print and storage. Output data in DICOM format to a laser printer, image server, or viewer using the provided LAN connection. An optional wireless network connection is available that provides even greater freedom for communication to RIS or PACS while moving the unit. With wireless, images can be sent to PACS when the study is closed, shortening the diagnosis time and new patients can be downloaded from RIS while the mobile cart is in the patient area.



## Large main unit storage of up to 4000 images ensures peace of mind

When performing repeated radiography, a large capacity storage system provides peace of mind. Store up to 4000 images in the main unit and easily refer to previous images, to make quick comparisons between preoperative and postoperative states. Technologists no longer need to carry and re-stock films or CR cassettes.

## Image verification and quality assessment

Technologist can quickly review images for alignment, artifacts and patient motion while the detector is still in its position. Retakes can be made without replacing cassettes, reducing inconvenience to patients and avoiding long walks to a CR reader. Annotation can be added to images immediately after exposure.



# Advantages for Emergency Cases and Pediatrics

## High image quality minimizing blurring

With radiography of children and emergency cases where it is difficult to maintain a stable posture, there is a tendency for images to be blurred due to patient movement. With MobileDaRt Evolution, a maximum output of 32 kW allows for shorter exposure times, minimizing blurring issues.

max. **32 kW**

Short exposure time

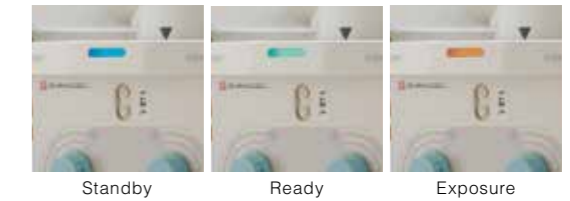
Inverter frequency  
max. **60 kHz**

Maximum tube voltage  
**133 kV**

Tube current-time product  
max. **320 mAs**

## Exposure status indicated by illumination

The MobileDaRt Evolution clearly displays essential X-ray process information such as "Standby" and "Exposure" status using a bright, easy-to-read display. Monitoring exposure timing has never been easier or more accurate.



## Perform radiography even with a low battery

This system is equipped with a function that allows radiography in an emergency, even if the battery runs low. This enables emergency radiography even before recharging the battery.

## Illuminated hand switch

Option

To make exposure timing even easier to follow, an optional illuminated hand switch can also be used to give color-coded indications that the system is ready or is performing X-ray radiography.



## Extra hand switch can be installed on the front panel

Option

To enhance the technologist's ability to take care of the patient while performing radiography, an extra hand switch (option) can be installed on the front panel of the main unit (column side). This extra hand switch is also illuminated.



# Superb, Highly Acclaimed Mobile System with Smooth Operability, Responsiveness and Mobility



Note) Decoration label is optional

# Various Functions Supports Stress-Free Positioning

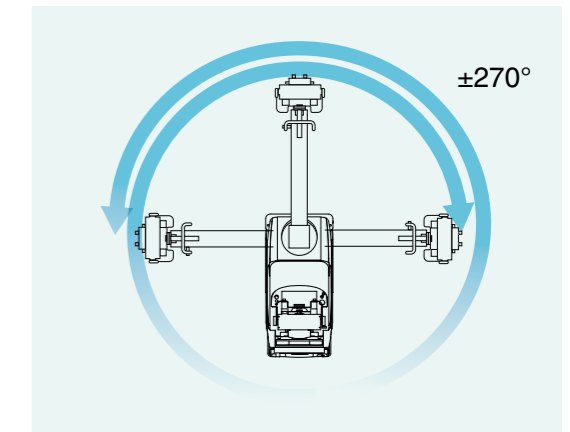
## “Inch-mover” buttons

The MobileDaRt Evolution can be moved forward or backward by using the bedside drive controls located on the front of the collimator. Safety is a major consideration and any sudden force applied to the handle during “Inch-mover” operation stops the MobileDaRt Evolution automatically. In addition, X-ray irradiation is also automatically disabled during any movement of the MobileDaRt Evolution.



## Wide imaging range

The range of motion of the ultra long arm (up to 1200 mm) makes even the most difficult imaging situations accessible.



## “All Free” buttons

Pressing any of the “All Free” buttons releases the electromagnetic locks for arm rotation, arm extension, and vertical movement of the X-ray tube, thus enabling simple one-step positioning.

The counterbalance system enables accurate positioning with smooth operation.



## Counterbalance system

Accurate and smooth positioning is available through a counterbalance system, allowing for easy positioning and exposing.



\*Short-column type, 1260 mm

## Light-touch, natural maneuvering

A light pressure applied to the drive handle moves the mobile system in a natural manner as if it were an extension of one's hand, allowing the MobileDaRt Evolution to be controlled easily and effortlessly.

## Safe for use in crowded facilities

To avoid accidents when moving the MobileDaRt Evolution through a crowded medical facility, an alarm can be used while driving to alert others to the presence of the unit.

## Shock-resistant main unit cover

A reinforced main cover reduces the possibility of damage from collisions with objects during movement.

## Notification function

To maintain the system performance, this system is equipped with a function to notify users of the replacement period for some parts.

## Keyless password entry allows operation without carrying a key

Option

Instead of a key, each user may have their own password which includes their preferences and preset X-ray parameters. This further enhances workflow.



## Optimum working height for operator comfort

Option

Drive handle height can be optimized depending on the preference of your staff.\*

\*The handle height can be set at the time of installation by service personnel.



# Wide Lineup For Your Various Choices



17×17 inch GOS type



17×14 inch GOS type



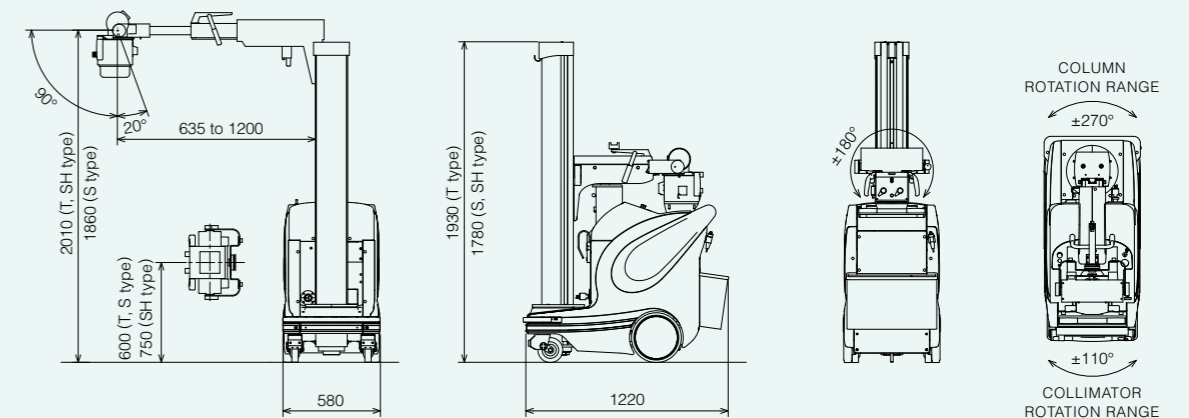
17×14 inch CsI type



24×30 cm CsI type

Type	T	SH	S
Focal height	600 to 2010 mm	750 to 2010 mm	600 to 1860 mm
Column height	1930 mm	1780 mm	1780 mm
Power for charging	Single-phase AC: 50/60 Hz, 1 kVA Voltage: 100, 110, 120, 200, 220, 230, 240 V Power plug: 3-pin plug (2-prong ground)		

Unit : mm



## Patient-Friendly Dose Reduction Concept Provides Peace of Mind

### Supports display of X-ray exposure dose

Option

Two kinds of dose management tools are available according to the needs of facilities. A Dose Area Product (DAP) meter can be mounted to the front of the collimator to display dose measurements on the display panel. If a dose calculation function is incorporated in the system, the estimated skin dose is displayed on the main unit display panel prior to taking exposures. Dose data measured with a dose area product meter or calculated skin dose can also be output in DICOM format.

### Displays distance from X-ray tube focal point to patient

Option

If a dose calculation function is incorporated in the system, the distance from the X-ray tube focal point to the patient can be displayed near the collimator with the distance display option, making it easier to maintain an appropriate exposure distance without using a tape measure. (Distance display requires the dose calculation option.)



Distance measurement unit    Calculated dose display    Distance display

### Options

- Radiation Shield (folding type)



- Barcode Reader

- Infrared Remote Controller



- External Monitor Interface

- Decoration Label



### Related Items

- Dose Area Product Meter



- Grid

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## Shimadzu Corporation

### Headquarters

1, Nishinokyo-Kuwabara-cho, Nakagyo-ku, Kyoto 604-8511, Japan  
<http://www.shimadzu.com>

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### 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 configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.
- Before operating this system, you should first thoroughly review the Instruction Manual.