

# SONIALVISION G4

Multi-purpose Digital R/F System



Selecting the best  
for every examination environment

*BEST in CLASS*

Multi-purpose Digital R/F System

**SONALVISION G4**



With the Sonialvision G4, Shimadzu offers a multi-functional universal system —one that is useful in a variety of examinations and examination environments, provides high image quality, is easy to operate, and accommodates patient's comfort.



# Consistently High Image Quality

## — *BEST Imaging*

Best-in-class, 139  $\mu\text{m}$  ultra-small pixel size FPD and our latest digital imaging technologies result in high image quality.

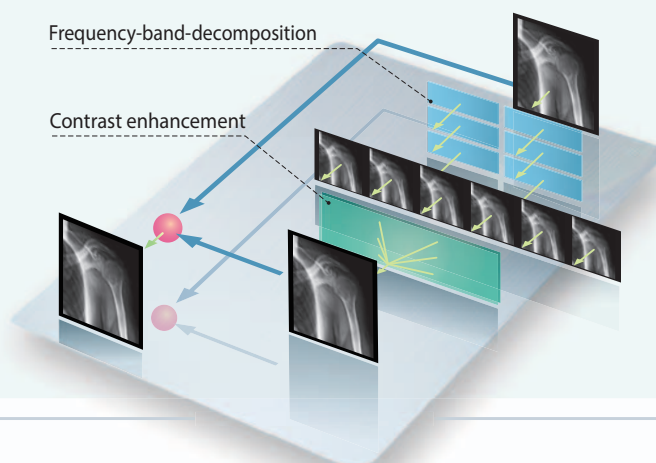


State-of-the-art digital image processing technology ensures clearer fluoroscopy and radiography images

— *SUREngine-Advance*<sup>(\*)</sup>

(<sup>\*</sup> Shimadzu Ultimate Real-time Enhancement imaging technology)

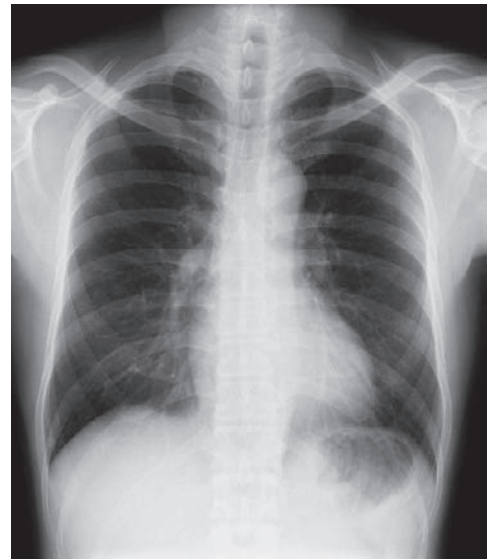
### Principle of Multi-Frequency Processing







View both legs, entire chest, or abdomen with a large field-of-view (up to 17 × 17 inches). Switch to a small field-of-view for detailed examinations of finger tips or other orthopedic regions.



The large field-of-view means DSA can be used for examination of everything from the hepatic artery to the entire lower extremities. (optional)



#### ■ Enhances Target Areas While Suppressing Halation

Various real-time digital filtering processes effectively suppress halation near the skin surface and around shadows where organs overlap.

#### ■ Efficiently Minimizes Fluoroscopy Noise

By extracting noise components and applying optimal digital filtering, the system effectively removes noise from obtained images with no delay or image lag, achieving smoother imaging.

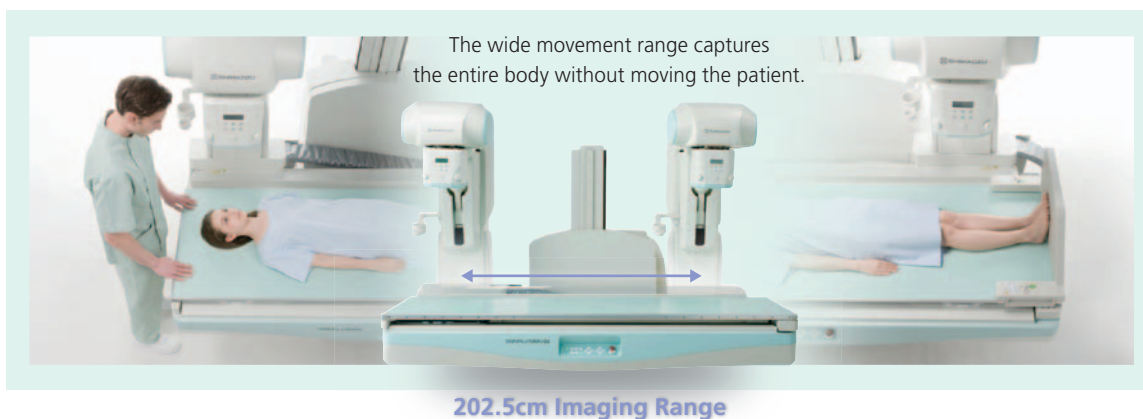
# Versatile Design for Various Examinations

## — *BEST Performance*

The system has been thoughtfully designed to consider all users in a diversity of situations, making it ideal for a wide variety of examinations.

### Orthopedic and General Radiography Studies

The large field-of-view captures a broad range, providing the flexibility to accommodate a wide variety of radiographic examinations.



- Our wide dynamic range imaging stably ensures high image quality while suppressing halation.



- Perform chest radiography easily by extending the imaging system.



- 90 deg. X-ray tube rotation allows the studies to the patient on the stretcher.

## Urological Examination

Urological examinations offering a large field of view while being dose conscious, and a wealth of functions to support urological examinations.

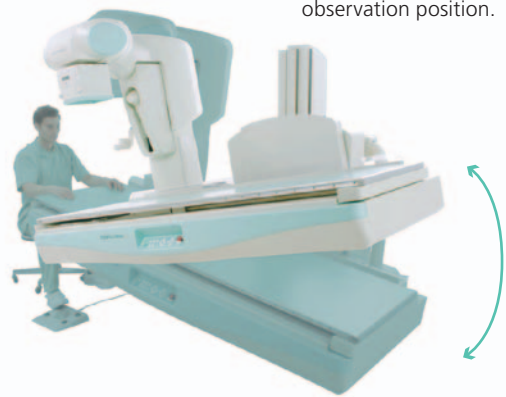
- The edge of the imaging range can be positioned as close as 9.5 cm from the head-end of the table (given a 17-inch FOV), making it easy to perform procedures using an optical endoscope.

- A urology foot switch is available for operating the imaging chain.  
(optional)

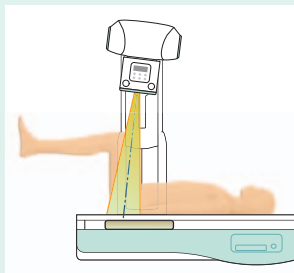
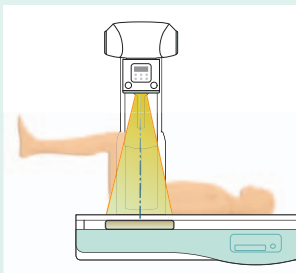


- Also, various dedicated options for Urology, such as Leg supports, Drain Bag, Endoscopy unit support arm are available.

- The table can be tilted without changing the observation position.



- A specialized collimation function is effective in dose reduction.





## Gastrointestinal Series and Swallowing Examination (Videofluoroscopy)

17 × 17 inches large field-of-view and high image quality is perfect for everything from routine checkups to specialized examinations and observations.



- Wheelchair patients can be examined simply by extending the imaging chain.
- Fluoroscopic images can also be saved in DICOM format.

- Max15cm/sec. quick movement of imaging chain with soft start/stop feature will ensure stress-free efficient examinations and higher productivity.



- An oblique projection function prevents overlapping organs in examinations.





## Endoscopy and Angiography

Supports endoscopy and angiography with a wide clean design and easy approach.

- The area around the table is uncluttered, and the monitor and local control console can even be freely configured.



- A wide, fully flat table with a high weight capacity ensures safety even during endoscopy and angiography procedures, and is easy to keep clean.

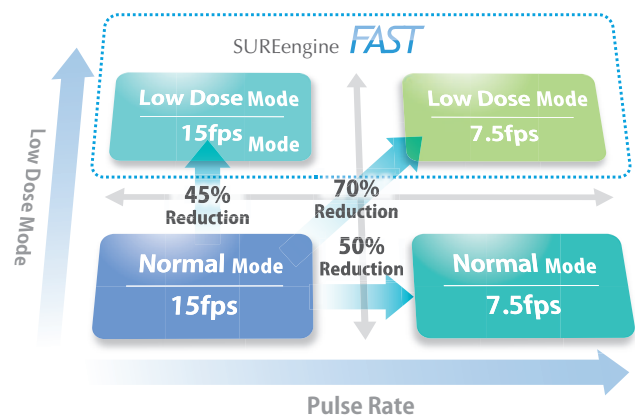


- When images are flipped vertically, the imaging chain movement direction can be reversed accordingly, enabling smooth examination procedures.

New low dose fluoroscopy mode for endoscopy

**SUREengine FAST**  
Fluoroscopy Assisted Studies and Treatments

- ❖ Reduction of radiation dose for fluoroscopy
  - ❖ Reduction of noise and lag
  - ❖ Real time image processing
- \* : Maximum pulse rate is 30fps



# Designed for Safety and Reliability

— *BEST Safety*

Every detail has been carefully refined to maximize the examination efficiency for operators, and the safety and peace of mind of patients.

With the lowest minimum table height setting available in its class, even elderly patients can get on and off easily.

To reposition the table when getting on or off, simply press a button. The imaging chain retracts to the head end, and the X-ray tube unit is extended to ensure patient safety.



Even elderly patients can get on and off the table easily.

Soft rubber surrounds the collimator output port to provide cushioning in case the patient is bumped.



The clean-look new design covering all the cables around the X-ray tube ensures hygienic advantages.



The wide, clean, seamless table offers the highest weight capacity in its class up to 318kg(700lb) at horizontal position, easily accommodating bariatric patients as well.

To prevent patients from accidentally tipping over during examinations, the table includes a function that briefly stops the table at any specified tilt angle.





# Comprehensive Dose Reduction and Management

## — *Low Dose Control*

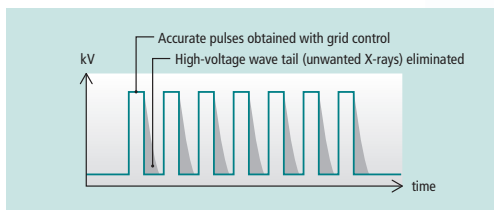
Equipped with various functions to reduce radiation exposure levels effectively, the system provides peace of mind for both patients and attending personnel during examinations.



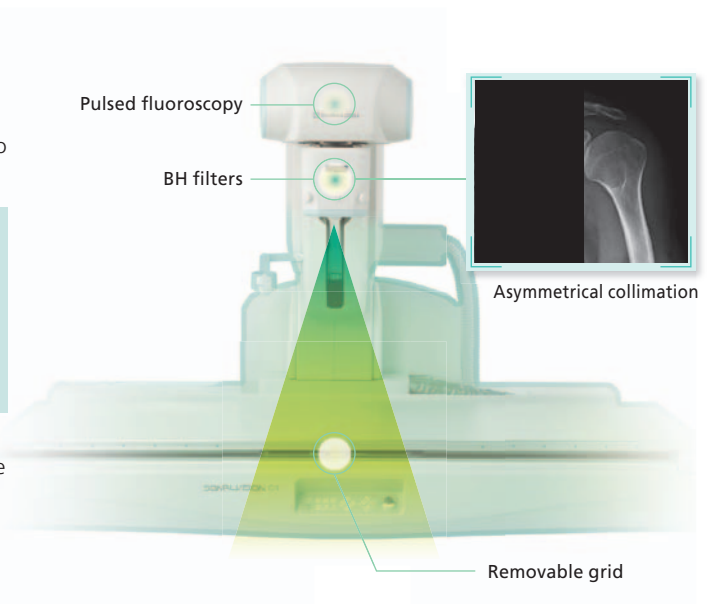




- To efficiently minimize exposure levels during examinations, the system features ultimate grid-controlled pulsed fluoroscopy with ideal wave tail elimination, as well as intelligent BH(Beam-Hardening) filter function that automatically selects optimal one from three different filters according to the type of examination and eliminates unnecessary X-rays that do not contribute to the actual images.



- Collimation can also be applied asymmetrically on the left and right (optional). This can eliminate the exposure to the unnecessary field outside of ROI.
- A virtual collimation function is also included that reduces unnecessary exposure by using the most recent fluoroscopic image to set collimation for radiography.



Removable Grid will be a further advantage in dose reduction, and will be important especially when the radiation exposure is a particular concern, such as in pediatrics, urology and gynecology.



# Productive and Comfortable Workflow

## — *BEST Operability*

This new generation system design provides even more convenient operability to help conduct stress-free examinations..



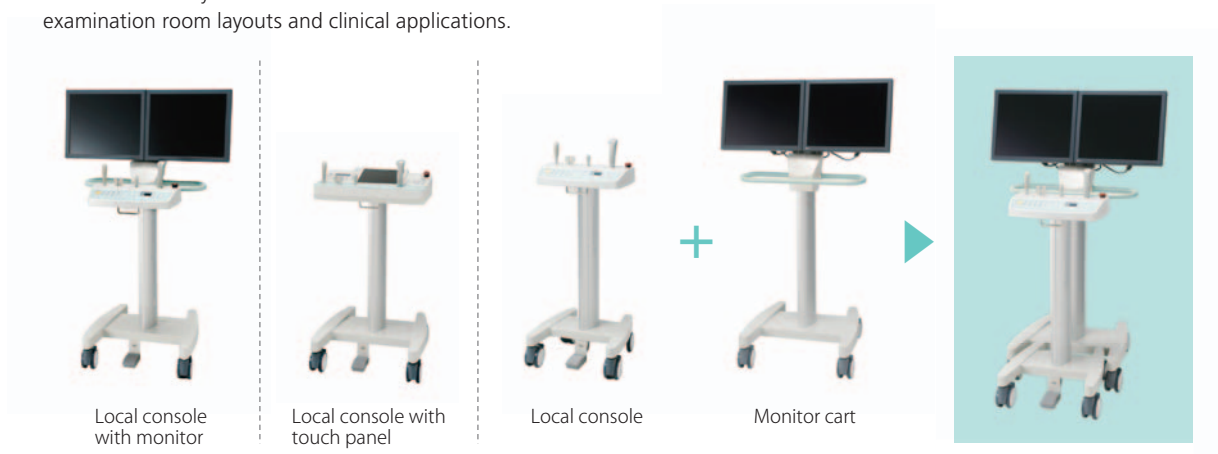
The high-speed dual system can simultaneously process images, register patient information, or perform other tasks quickly in real time, without interfering with examinations.

Because the X-ray generator, R/F table and digital processor are all linked, the number of operating steps during examinations is significantly reduced, which increases examination efficiency and room's productivity a lot.

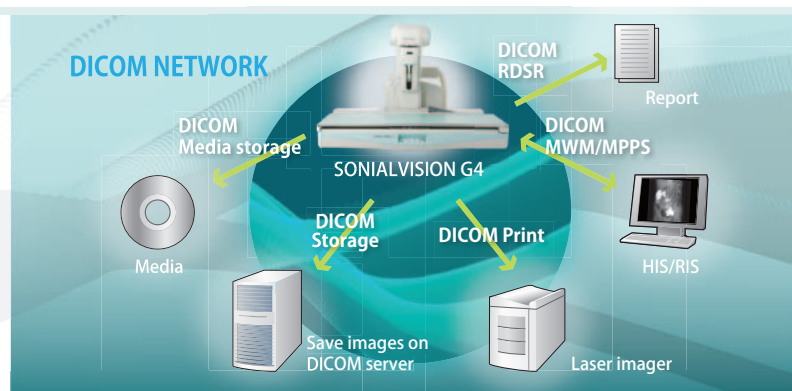
All controls necessary for a given examination are gathered at the central touchscreen. Consequently, each examination can be performed more efficiently.



Several types of monitor carts and local control consoles are available for your selection to accommodate various examination room layouts and clinical applications.



Excellent Network compatibility ensures smooth patient registration, image printing, and storage.  
(optional)



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 Web site at [www.shimadzu.com](http://www.shimadzu.com)



## Shimadzu Corporation

### Headquarters

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



Shimadzu Corporation Medical Systems Division has been certified by TÜV Rheinland as a manufacturer of medical systems in compliance with ISO9001:2008 Quality Management Systems and ISO13485:2003 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 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.