

Relentless Innovation  
for your diagnostic confidence

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1

ACCELERATING  
EXPERIENCE

**ACC**™ **GM85**  
ACCESS · ACCURACY · EFFICIENCY

The New

6.7



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SOLUTIONS

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Perceptra Solutions Co., Ltd.

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ACCELERATING  
EXPERIENCE

**ACC GM85**

Premium mobile diagnostic system.  
ACC GM85 provides outstanding driving experience  
and advanced capabilities to support manual  
usability and high image quality.

01

ADVANCED DRIVING  
EXPERIENCE

02

INNOVATIVE ENHANCED  
STABILITY

03

DIAGNOSTIC  
CONFIDENCE

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Perceptra Solutions Co., Ltd.

*Lee*

- Compact & Light
- Time Saver Battery
- On-Device CAD

AccE Glass-Free  
Detector

Low Dose

+ Auto  
Filter  
Auto Filter

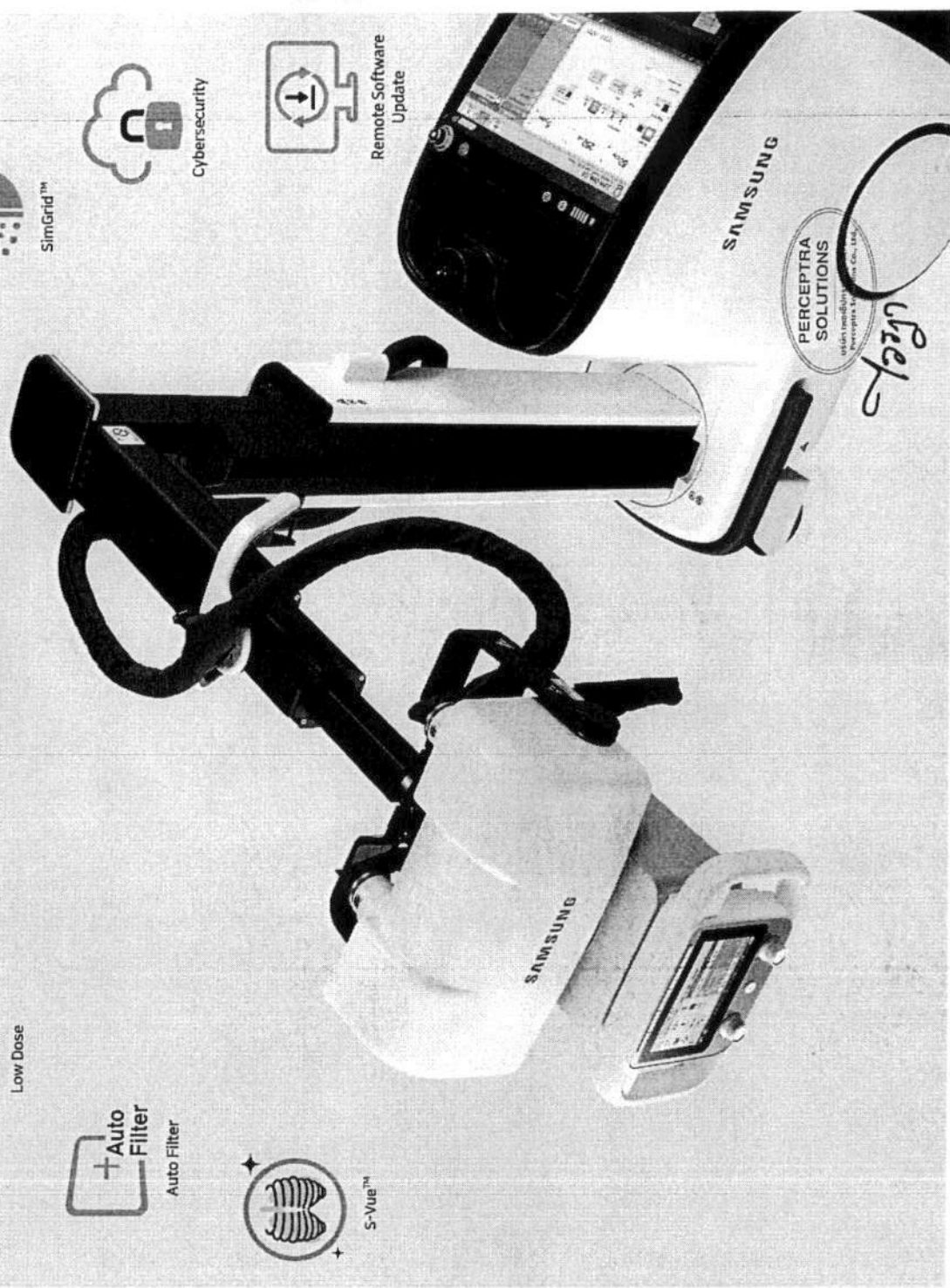
S-Vue™

**The New**

SimGrid™

Cybersecurity

Remote Software  
Update



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# ADVANCED DRIVING EXPERIENCE

## Collapsible

Collapsible column with maximum height of 2,030 mm (6.7 ft) to secure a clear vision when driving the system.

2,030 mm(max.)  
6.7 ft

## Light

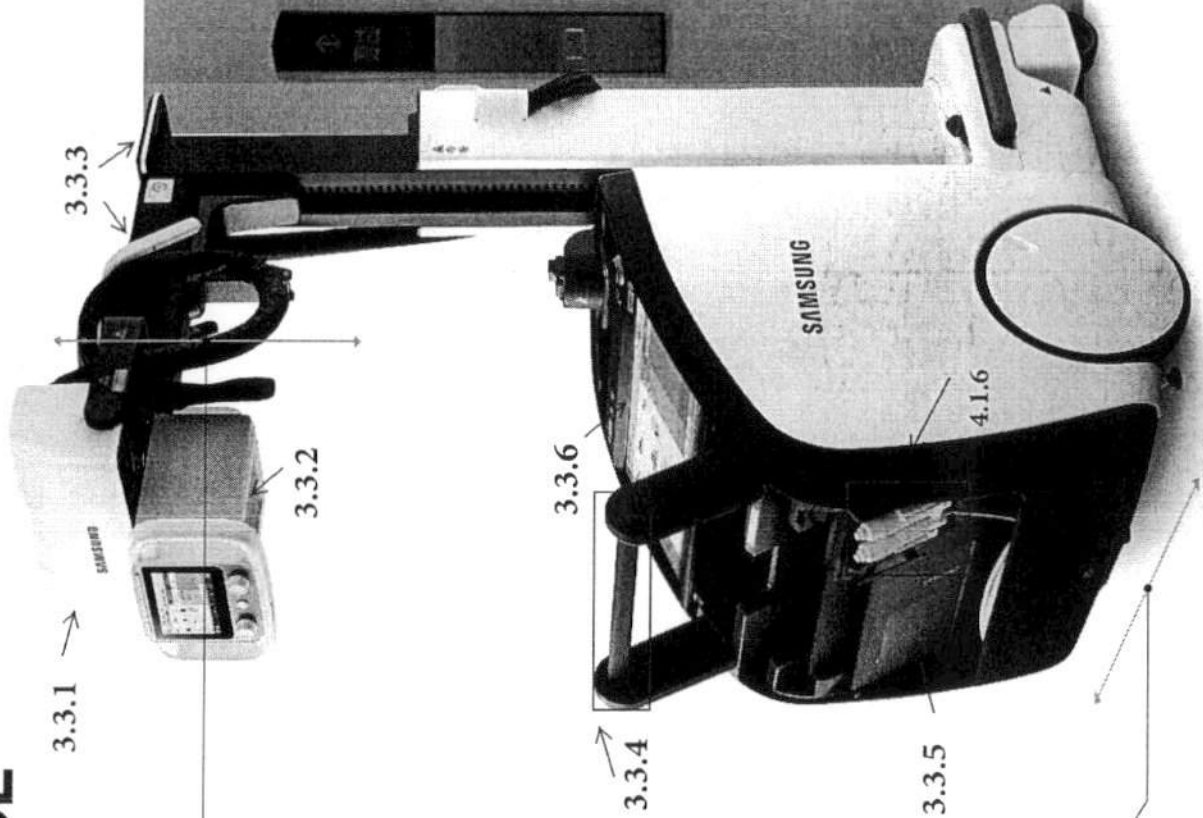
AccE GM85 only weighs 349 kg (769 lb) and allows easy maneuvering both in and out of elevators without worrying about the weight limit.

349 kg  
769 lb

## Compact

Easily access limited spaces with compact AccE GM85 even in narrow hallways or tight spaces.

555 mm  
21.9 in



3.3.1

3.3.3

3.3.2

3.3.6

3.3.4

3.3.5

4.1.6

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# INNOVATIVE ENHANCED USABILITY

## ACC Detector

AccE Detector is the latest addition to Samsung's premium DR line-up improving on durability, environmental protection, and ergonomics to enrich the user experience.



### Answer to Versatile Environment

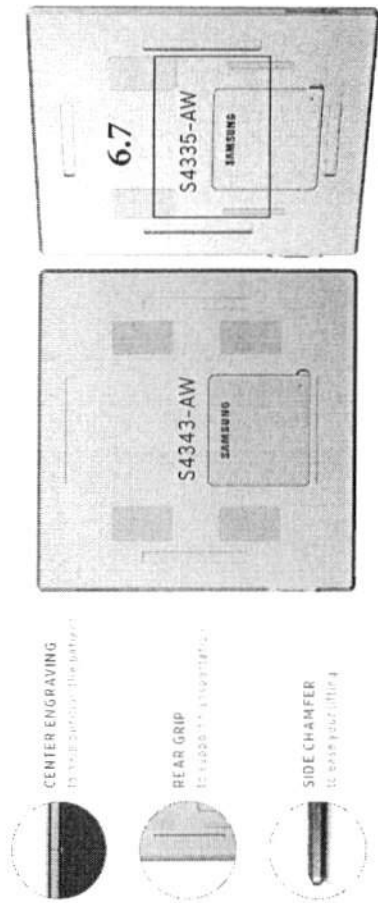
Enhanced load allowance\* along with dust and water resistance\* allows the detector to be actively implemented in versatile environments. Its robust design will help reduce user concerns when applying the detector in complex situations such as ER and OR.



\*Allowed Point Load (4cm radius on the center) - 200 kg (441 lbs), Surface Load - 400 kg (882 lb)  
 \*\*Dust & Water Resistance - IP54 (IEC 60529)

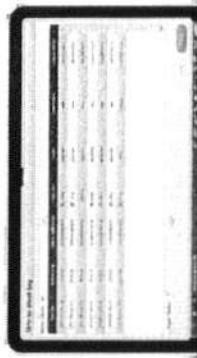
### Enhance Your Daily Workflow

User-centric design of the detector to support patient positioning and alleviate daily burdens.



### Manage Your Detector Wisely

Continuous status tracking of the detector will upgrade user confidence and guarantee uptime. Features such as real-time shock sensing and detector auto correction will allow the detector to be in shape for use and help you respond quickly to critical detector shocks.



Real-time Shock Sensing

### Image Auto Rotation\*

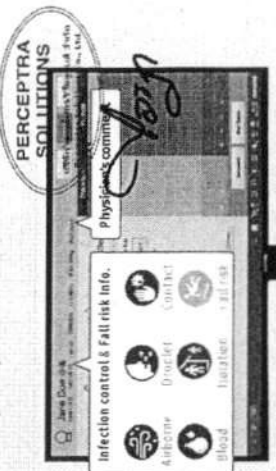
4.6.8

In portable exams, radiologic technologists rotate images after the acquisition as the image orientation depends on the exam environment. Image Auto rotation detects the rotation angle of the chest image and automatically rotates 0°, 90°, 180° or 270° based on AI algorithm.



### Additional Patient Information\*

Additional Patient Information feature shows intuitive infection and fall risk information & order comments to support correct action for each patient. This can keep patients and staff safe as we can respond to the possible risks and take preemptive measures.



*Free!*

# INNOVATIVE ENHANCED USABILITY

**54%  
Longer\*** **New**  
Powerful Battery Performance

As the procedure volume of mobile x-ray increases to deal with a large number of patient volume, Samsung is focusing more on efficient mobile DR imaging based on its accumulated battery technology. The upgraded lithium-ion battery offers 54% longer operating time<sup>1</sup> than conventional GM85 on a single charge. Experience higher productivity and performance with the new AccE GM85.

## 4.4.5



<b>Rapid Charging<sup>1</sup></b>	<b>All Day Operation<sup>2</sup></b>	<b>Max. Exposure<sup>3</sup></b>	<b>Sleep Mode Stand-by<sup>4</sup></b>
With <b>3~4</b> hours	<b>500</b> exposures <b>50</b> km (31 miles) <b>10</b> hours	<b>1,800</b> exposures	<b>31</b> hours

1. Test condition: Chest AP, 250 mAs, 250 mA, 5 msec, 60 sec intervals, with flying at 5.6 mph  
2. Test condition: Chest AP, 250 mAs, 250 mA, 5 msec, 10 sec intervals, without driving  
3. Test condition: Chest AP, 250 mAs, 250 mA, 5 msec, 60 sec intervals, without driving  
4. Test condition: Chest AP, 250 mAs, 250 mA, 5 msec, 60 sec intervals, without driving

## 4.6.16

**Less than  
43 dB<sup>1</sup>** **New**  
Quiet Operation for Care

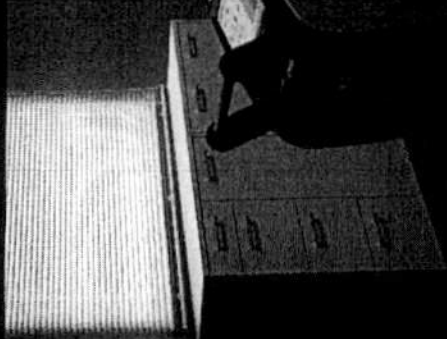
AccE GM85 allows low noise operations that do not disturb other patients. With **night mode** on, the screen color, temperature, and sound volume are accordingly adjusted. It will be a necessary function for taking x-ray exams in a quiet environment such as NICU. Its **quick exposure** feature is useful for pediatric patients who are not easy to maintain stationary posture.



American Academy of Pediatrics (AAP) recommendation in NICU: ≤ 45 dB  
1. The noise level is less than 43 dB when the system is on stand-by.

## SID Guide

SID Guide (Source to Image Distance) supports detailed device positioning with multiple SID settings. (3 SID Types: 100/130/180 cm)



5

## S-Align™

S-Align™ displays the detector's angle to the THU for precise alignment and enhances the quality of imaging. With S-Align™ info. to DICOM\* feature, the tube/detector angle information is inserted into the DICOM personal tag and added as annotations.

## 4.6.15

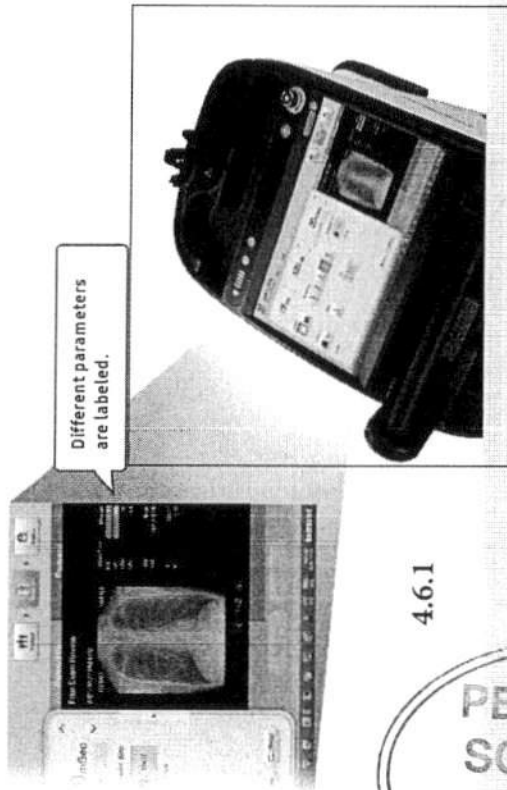


\* Options feature requiring additional purchase

# INNOVATIVE ENHANCED USABILITY

## Prior Exam Review\*

Prior Exam Review displays immediately previous images and exposure parameters of the patient being examined. It simplifies the conventional 3-step process with one click. With a quick comparison, users can improve image consistency and reduce retakes.



4.6.1

## Samsung Healthcare Cybersecurity

Bring peace of mind to your hospital and patients

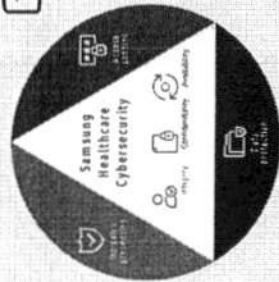
Tools for protecting against cyber threats from external attacks

Encryption functions for safeguarding data whether at-rest or in-transit

Strengthened surveillance for tracking of patient information

Windows 10 operating system

10



UL CAP  
Certified 2019  
for software cybersecurity  
of network connectable products

\* Optional feature, requiring additional purchase

4.6.2

6

### Multi-touch Screen

Pinch gesture enables the user to zoom in and out while the two-touch shutter makes image cropping easy.

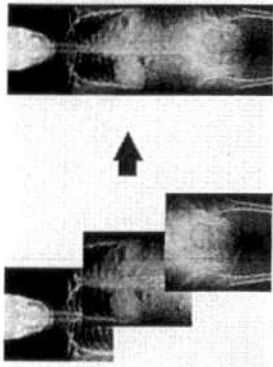


### Embedded RFID Badge Tag\*



## Manual Stitching

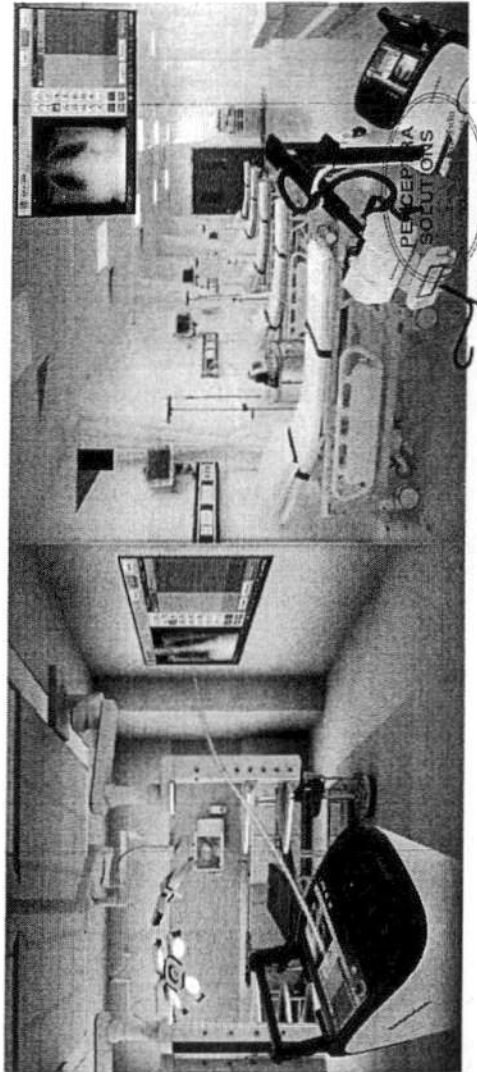
Manual Stitching feature helps clinical staffs view X-ray images that are larger than the detectors area by combining multiple images into one.



Images were taken with GR40CW

## MirrorView\*

In the ER/OR or Trauma environments, multiple medical staff may often need to quickly acquire and check images in real-time. In such environments, MirrorView provides secured screen sharing using WI-FI CERTIFIED Miracast™. This function supports medical staff to check images together on a separate screen; it can reduce first aid response time and the risk of contamination.



Free

10/19

# DIAGNOSTIC CONFIDENCE

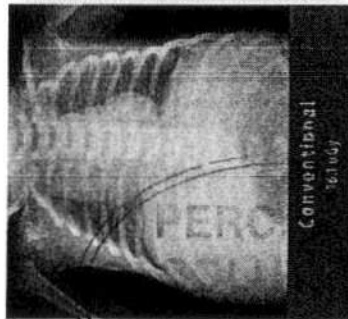
4.6.10



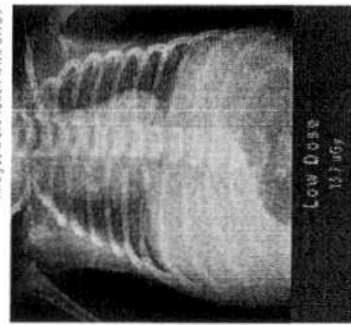
## S-Vue™ in Pediatric X-rays

Underaged patients are more radiosensitive than adults. Therefore, diagnostic x-rays should be justified and optimized to reduce unnecessary exposures, especially for pediatric patients. To alleviate these concerns, the new S-Vue™ engine helps achieve the optimal dose level for children during pediatric x-ray scans. The dose level can be reduced up to 45% dose reduction for pediatric abdomen, 15.5% for pediatric chest, and 27% for pediatric skull exams with the new S-Vue™ engine. This is especially significant as abdomen protocols may include genital regions.

Case, Pediatric Chest AP\*



15%  
Dose Reduction

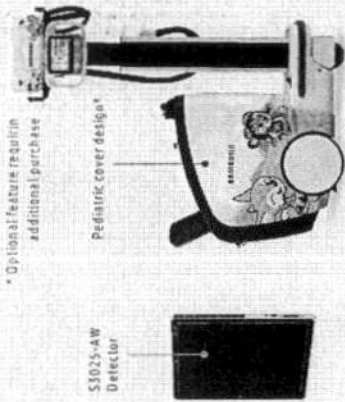


Images were taken with G425

Power from Pediatric to Obese

ACCE G425 supports 6-stage Pediatric Exposure Management according to weight and 3-stage Bariatric Exposure Management\* (Large/X-Large/ZX-Large) to avoid unnecessary x-ray exposure using precise dose, resulting in excellent image quality.

Patient Size



\* Option of feature require additional purchase

S5025-AW  
Detector

Pediatric cover design\*

## Low Dose in New S-Vue™

S-Vue™ not only provides excellence in image quality, but also secures better patient safety in radiography examinations. This can help change the patient's perspectives for X-ray radiation and improve patient satisfaction.



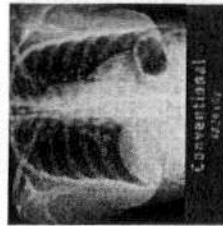
Our Pledge for Low Dose

At Samsung, we are committed to giving our patients the best X-ray experience. Our Low Dose technology helps reduce the radiation dose to help protect your patients. We are committed to the safety of our patients.

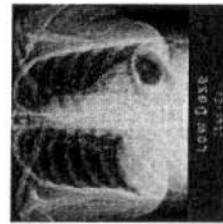
## S-Vue™ in Adult Chest X-rays

Chest x-ray scans are the most frequent radiography examinations for patients in hospitals. Therefore reducing dose in chest x-rays is significant as it allows scans to be taken with reduced dose level for increasing number of patients. With new S-Vue™ processing engine, it cuts dose by 50% to low dose level while keeping the image at high quality.

Case, Adult Chest PA\*



51%  
Dose Reduction

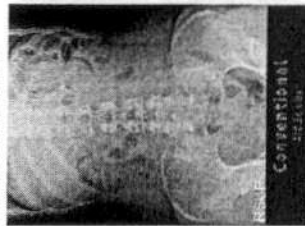


Images were taken with G425A

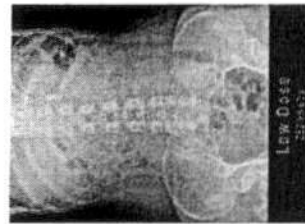
## S-Vue™ in Adult Abdomen X-rays

Dose exposure during abdomen x-ray scan is rather high in comparison to chest or other x-ray scans, making the dose reduction of this procedure critical. The new S-Vue™ engine allows up to 47.5% decrease in dose exposure with no compromise in image quality for better patient care.

Case, Adult Abdomen\*



43%  
Dose Reduction



Images were taken with G425A

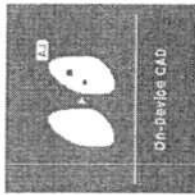
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\*) The claim concerning Samsung PR is based on limited phantom and clinical study results. Only routine PA chest and adult abdomen x-ray radiography for average adults and pediatric abdominal chest x-ray radiography were studied, excluding pediatric patients under 1 month old (FDA cleared - K172279, K182181). In practice, the values of dose reduction may vary accordingly. These clinical images calculate the dose reduction rate from its own standard dose at the clinical site, unlike our FDA claim which compares dose between our PR and old PR. The clinical site is responsible for determining whether the particular radiographic imaging needs are not impacted by such x-ray dose reduction.

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Perceptra

# DIAGNOSTIC CONFIDENCE

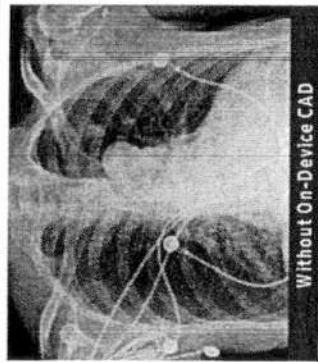


## On-Device CAD\*

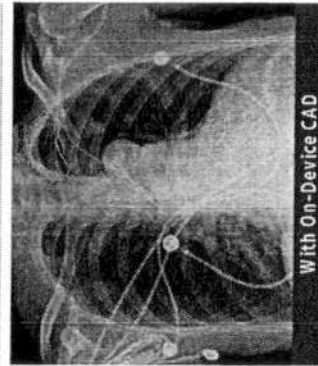
Samsung's new On-Device CAD solution with VUNO Med<sup>®</sup>-Chest X-ray™ assists you to diagnose more efficiently and accurately by automatically detecting the 5 most common thoracic findings in emergency care.

Nodule/Mass · Consolidation · Interstitial Opacity  
Pleural Effusion · Pneumothorax

Case, Chest PA

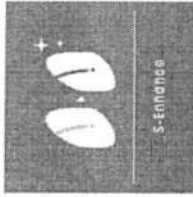


Without On-Device CAD



With On-Device CAD

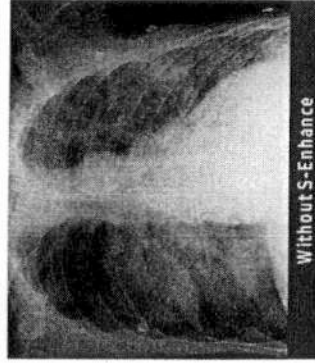
Images were taken with GM85.



## S-Enhance\* 4.6.11

To support your diagnosis, S-Enhance improves the clarity of foreign bodies (e.g. tube, line and/or needle) in images of chest, abdomen, and L-spine. With a single on-screen click, the companion image is created without additional settings or x-ray exposure, streamlining the workflow.

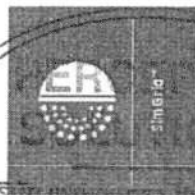
Case, Chest AP



Without S-Enhance



With S-Enhance

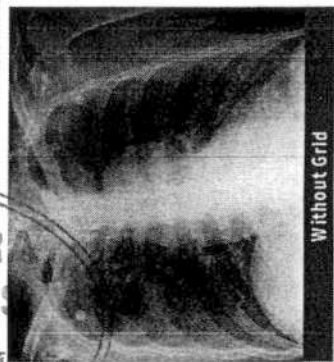


## SimGrid™\*

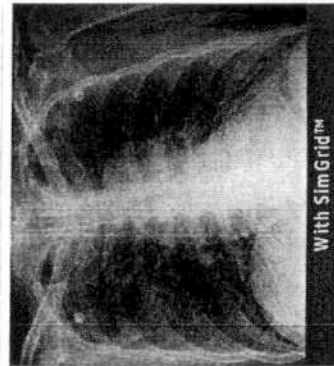
4.6.9

With just a click, SimGrid™ allows you to provide better patient care with higher satisfaction and reduced retake rates without the use of a portable grid. It improves image contrast by reducing scatter radiation effects and creates better image quality. The 3-step intensity control (Low/Medium/High) enables customized image processing.

Case, Chest AP

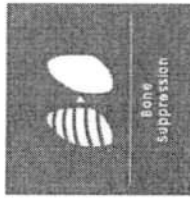


Without Grid



With SimGrid™

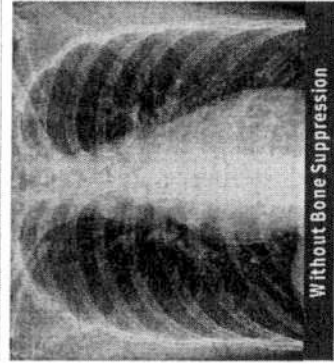
Images were taken with GM85.



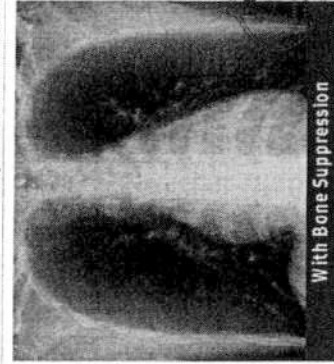
## Bone Suppression\*

Without additional setting or exposure, Bone Suppression Imaging improves the clarity of soft tissues by suppressing the appearance of bones in chest images, which improves your ability to detect nodules. You can easily create the companion image with just a click on the screen.

Case, Chest PA



Without Bone Suppression



With Bone Suppression

Images were taken with GC85A.



*Wesley*

*Wesley*



# ACCELERATING EXPERIENCE

# ACC™ GM85

ACCESS · ACCURACY · EFFICIENCY

**The New**



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โซลูชัน

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Mechanic

4.3.1	Column Type	Collapsible
3.1	Column Height	Min. 1,376 mm / Max. 2,152 mm
3.1	SIZE (W (cm) x L (cm) x H (cm))	55.5 x 125.8 x 139.6
3.1	Weight (kg)	349
4.3.2	Tube Reach (cm)	79.3 - 135.5 (Center of column to Focal spot)
4.3.3	Focal Spot Range (cm)	55 - 203
4.3.4	Column Rotation	±315°
4.3.4	Tube Rotation (arm axis)	±180°
4.3.5	Tube Rotation (tube axis)	±90° - -50°

HVG

4.1.1	Power (kW)	Type A	Type B
4.1.1	kVp	32	40
4.1.2	mA	40 - 150 (1 kV step)	40 - 150 (1 kV step)
4.1.3	mAs	10 - 500	10 - 500
4.1.4	Exposure time range	0.1 - 500	0.1 - 500
4.1.4	Exposure parameter Settings	From 1 ms to 10 seconds	From 1 ms to 10 seconds
4.1.4	Exposure parameter Settings	49 kV 400 mA 64 kV 500 mA 80 kV 500 mA 100 kV 400 mA 100 kV 320 mA 128 kV 250 mA 150 kV 200 mA	49 kV 400 mA 80 kV 500 mA 100 kV 400 mA 125 kV 320 mA 150 kV 250 mA
4.1.4	Generator frequency*	30 kHz / 50 kHz	30 kHz / 50 kHz
4.1.4	* depending on the HVG type		



4.2.1	Heat Capacity (WU)	300
4.2.2	Anode Angle	14°
4.2.2	Focal Spot (mm)	0.6 / 1.2
4.2.2	Rotational speed	min. 3,200/min (60 Hz) 1,056 kHU (750 kJ)
4.2.2	X-ray heat storage capacity of tube	1,056 kHU (750 kJ)

*Weg*



Collimator

4.2.6	Type	4-axis auto blade
4.2.4	Light	LED
4.2.4	Additional Filter	0.1, 0.2, 0.3 mmCu (Auto)
4.2.4	Illuminance	±160 lux
4.2.5	Inherent Filtration	Over 1.2 mmAl @ 75 kVp
4.2.5	Rotation Angle	-90 - 180° (Total 270°)
4.2.5	ETC	Measuring Tape DAP integration*
4.2.5	* Optional	

Driving

4.4.3	Speed	Max. 5.6 km/h
4.4.3	Soft Driving*	Provided
4.4.2	Slope	Max. 7 deg
4.4.2	Bumper sensor	Provided
4.4.1	Emergency Brake Release	Provided
4.4.1	* The adaptive driving control with sensing the force of user.	

Battery

4.4.5	Type	Li-ion Battery
3.2	Input Outlet	Free Voltage (100-240VAC, 50/60Hz)
3.2	Charge Time*	Approx. 4 hours * 200-240VAC ± 3 hours * 100-127VAC ± 4 hours
3.2	* depends on capacity of outlet	

Display

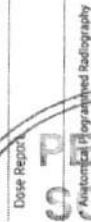
4.6.2	Type	Main	Sub(THU)
4.6.2	Size	21.5"	7"
4.6.2	Resolution	1920 x 1080 (FHD)	800 x 480
4.6.2	Touch	Provided	Provided

Workstation

4.6.1	Hardware	
	CPU	Intel Core i3
	RAM	8G or 16G
	Storage	SSD 1TB - Image storage capacity: S4343-AW / S4335-AW :- 12,000 Images F4335-AW / S4335-AW :- 14,000 Images S3025-AW :- 30,000 Images -Hard Drive encryption Microsoft Windows 10
	OS	Microsoft Windows 10
	Software	
	Image acquisition times* (X-ray exposure to image)	S4343-AW (Tethered) : Preview < 2 sec, Final < 5 sec S4343-AW (Wireless) : Preview < 2 sec, Final < 6 sec F4335-AW / S4335-AW (Tethered) : Preview < 2 sec, Final < 4 sec F4335-AW / S4335-AW (Wireless) : Preview < 2 sec, Final < 5 sec S3025-AW (Wireless) : Preview < 3.5 sec, Final < 6 sec

\* It depends on the image processing parameters and system condition

4.6.2	Post processing	S-Vue™ - Protocoll(Body part) adaptive multi scale image processing - Advanced noise reduction processing - Excess contrast reduction processing for minimizing metal artifact
4.6.7	Display functions	Window level control, Zoom / Magnifier, Flip / Rotate, Invert, Shutter (Fixed / Auto / Manual) Annotations (Marker / Free text / Arrow / Line / Length / Angle / Cobble angle / Rectangle / Ellipse) Layout (1x1, 1x2, 2x1, 2x2)
4.6.3	Auto cropping	Auto shutter
4.6.4	Multi language	X-ray conditions, Image processing parameters, Marker etc English, French, German, Italian, Spanish, Russian, Simplified Chinese, Portuguese, Turkish, Finnish, Swedish, Czech, Polish
4.6.5	Dose Report	List patient dose information Send dose information to a PACS Export to DVD/USB through .JPG/DICOM format



Features

4.6.12	SD Guide	Description
4.6.4	Quick Positioning	Intuitive laser guide helps to align SID Moving System forward/backward or rotation CW/CCW by THU button
4.6.5	Multi Exposure Management	Providing subdivided exposure conditions of child and baby Improving alignment of detector and tube by providing the angles of detector and tube
4.6.6	Delayed charging	Charging detector automatically in the cabinet Indicating x-ray exposure ready/shoot and emergency status
4.6.7	System status indicating LED	Accessing to system with pin code on THU display Easy access to existing RIS/HIS/PACS system in the S-Station
4.6.8	Keyless access	BATTERY system that allows irradiation while being charged
4.6.9	Quick Link	
4.6.10	Plug-in e-poster	

\* This feature is only for F4335-AW, S4335-AW, S4343-AW detector

H/W Optional Items

	Description
Wireless Hand Switch	Bluetooth or Infrared type
Bar Code Scanner	Minimum resolution : typical 3 mil
H-DAP	Quality Equivalent Filtration : 0.2mm Al @ 70kVp
Portable Grid for 4335*	SID : 130 cm, 61, 85 lp/cm
Portable Grid for 4343*	SID : 130 cm, 61, 85 lp/cm
Attachable Tether Cable (TM)	For Charging & Transferring image from detector to system
LAN Cable (3M)	For Transferring image to PACS
Pediatric Cover Design	Refer to the design in the brochure
RFID Reader	RFID badge scan for login (Support 125KHz, 13.56MHz) (Recommend card type : HID Prox / CLASS ID)
In-bin charging	Integrated charging cable for S3025-AW/AWM
A/C/DC Adaptor	Charging Adaptor for S3025-AW/AWM

\* Portable Grid for F4335-AW, S4335-AW requires additional service parts for combining together

S/W Optional Items

	Description
SimGrid™	Enhancing the visibility of image without physical grid by compensating the decrease in contrast caused by scatter radiation
Bone Suppression	Improving the clarity of soft tissues by suppressing the appearance of bones in chest images
S-Enhance	Enhancing visibility of foreign body in chest, abdomen and spine images
Remote View	Transferring configured image through a web browser using the IP address
Manual Stitching	Allow manual stitching of multiple images
QAP Package	Quality Assurance Program and AI Filter/Phantom
S-OAP	Software DAP/Dose Area Product
S-Share™	Sharing detectors between GM85 and Samsung DR system
WBS Activation	Support verified wireless barcode scanner - Refer to the verified scanner list
Value-up Package*	- Interfacelift/Wireless Scanner / USB Serial/Bluetooth/40Hz, 2.5Ghz, ISM Flat GUI / Image Auto Rotation / Additional Patient Information S-Align™ Info. to DICOM / Detector Connection Alarm / Prior Exam Review / Bariatric Exposure Management
Mirror View	Provides secured screen sharing of S-Station to the display device using Wi-Fi/CER™/RED Miracast™
Chest CAD	On-Device type CADe solution which supports healthcare professionals with detection of S abnormalities (Module/Pass, Consolidation, Interstitial Opacity, Pleural Effusion, Pneumothorax)

1) There are restrictions on sharing between detectors, please refer to separate guide  
2) S-Align™ Info. to DICOM is only for F4335-AW, S4335-AW, S4343-AW detector  
3) YUNO MedB-Chest X-ray™



*Prep*

AccE Detector

Wireless Portable Detector	F4335-AW
Detector model	Amorphous Silicon TFT / Cesium Iodide scintillator (CsI)
Detector type	460 x 384 x 15 mm
Dimensions	3,040 × 2,466 pixels
Active detector matrix (Effective Pixel matrix)	425.60 mm × 345.24 mm
Effective area	140 μm
Pixel pitch	16 bits
A/D conversion (Pixel depth)	3.57 lp/mm
Spatial resolution	76% (I.O lp/mm, Typical)
Detective Quantum Efficiency (DQE)	86% (0.5 lp/mm, Typical)
Detective Quantum Efficiency (DQE)	Wireless / Tethered
Modulation Transfer Function (MTF)	Tethered / Wireless (802.11 a/b/g/n & ac) @2.4/5 GHz
Installation	Available, v3.0
Image Acquisition	Approx. 2kg (w/o Battery Set *)
AED	400 kg for uniform load, 200 kg for local load (40 mm in diameter disk at the center)
Weight	IP54
Max load capacity	Automatic detection & alarming of line artifact
Dust/Water-resistance	Real-time detection, logging and alarming of shock level
Self diagnosis	Typ. 6 hrs. (tethered), Typ. 3 hrs. (battery charger)
Shock logging	500 images for 4 hrs.
Battery charging time	Waiting for more than 10 hrs under deep sleep mode
Battery Operation Time	

\*The Battery Set includes the battery and the battery cover

4.5.1 Wireless Portable Detector

Detector model	F4335-AW
Detector type	Amorphous Silicon TFT / Cesium Iodide scintillator (CsI)
Dimensions	460 x 384 x 15 mm
Active detector matrix (Effective Pixel matrix)	3,040 × 2,466 pixels
Effective area	425.60 mm × 345.24 mm
Pixel pitch	140 μm
A/D conversion (Pixel depth)	16 bits
Spatial resolution	3.57 lp/mm
Detective Quantum Efficiency (DQE)	76% (I.O lp/mm, Typical)
Detective Quantum Efficiency (DQE)	86% (0.5 lp/mm, Typical)
Modulation Transfer Function (MTF)	Wireless / Tethered
Installation	Tethered / Wireless (802.11 a/b/g/n & ac) @2.4/5 GHz
Image Acquisition	Available, v3.0
AED	Approx. 3 kg
Weight	400 kg for uniform load, 200 kg for local load (40 mm in diameter disk at the center)
Max load capacity	> 200 kg @ 3-point bending condition
Dust/Water-resistance	IP54
Self diagnosis	Automatic detection & alarming of line artifact
Shock logging	Real-time detection, logging and alarming of shock level
Battery charging time	Typ. 6 hrs. (tethered), Typ. 3 hrs. (battery charger)
Battery Operation Time	500 images for 4 hrs. Waiting for more than 10 hrs under deep sleep mode

4.5.1

4.5.1

4.5.4

4.5.2

4.5.5

4.5.3

4.5.7

4.5.6

4.5.9

4.5.8

AccE Detector

Wireless Portable Detector	S4343-AW
Detector model	Amorphous Silicon TFT / Cesium Iodide scintillator (CsI)
Detector type	460 x 460 x 15 mm
Dimensions	3,040 × 3,036 pixels
Active detector matrix (Effective Pixel matrix)	425.60 mm × 425.04 mm
Effective area	140 μm
Pixel pitch	16 bits
A/D conversion (Pixel depth)	3.57 lp/mm
Spatial resolution	76% (I.O lp/mm, Typical)
Detective Quantum Efficiency (DQE)	86% (0.5 lp/mm, Typical)
Detective Quantum Efficiency (DQE)	Wireless / Tethered
Modulation Transfer Function (MTF)	Tethered / Wireless (802.11 a/b/g/n & ac) @2.4/5 GHz
Installation	Available, v3.0
Image Acquisition	Approx. 3.6 kg
AED	400 kg for uniform load, 200 kg for local load (40 mm in diameter disk at the center)
Weight	> 200 kg @ 3-point bending condition
Max load capacity	IP54
Dust/Water-resistance	Automatic detection & alarming of line artifact
Self diagnosis	Real-time detection, logging and alarming of shock level
Shock logging	Typ. 6 hrs. (tethered), Typ. 3 hrs. (battery charge)
Battery charging time	500 images for 4 hrs.
Battery Operation Time	Waiting for more than 10 hrs under deep sleep mode

Wireless Portable Detector

Detector model	S1025-AW
Detector type	Amorphous Silicon TFT / Cesium Iodide scintillator (CsI)
Dimensions	350 x 287 x 15 mm
Active detector matrix	2536 x 2024 pixels (W x H)
Effective area	314.5 mm × 251.0 mm (W x H)
Pixel pitch	124 μm
A/D conversion (Pixel depth)	16 bits
Spatial resolution	4.0 lp/mm
Detective Quantum Efficiency (DQE)	75% (0 lp/mm, Typical)
Detective Quantum Efficiency (DQE)	87% (0.5 lp/mm, Typical)
Modulation Transfer Function (MTF)	Wireless only
Installation	Wireless (802.11 n/ac) @2.4/5 GHz
Image Acquisition	N/A
AED	2.1 kg (Typical)
Weight	400 kg for uniform load, 200 kg for local load (40 mm in diameter disk at the center)
Max load capacity	IP67
Dust/Water-resistance	Automatic detection & alarming of line artifact
Self diagnosis	Real-time detection, logging and pop-up alarming
Shock logging	2 hrs. (AC-DC adaptor)
Battery charging time	270 images for 7.5 hrs
Battery Operation Time	

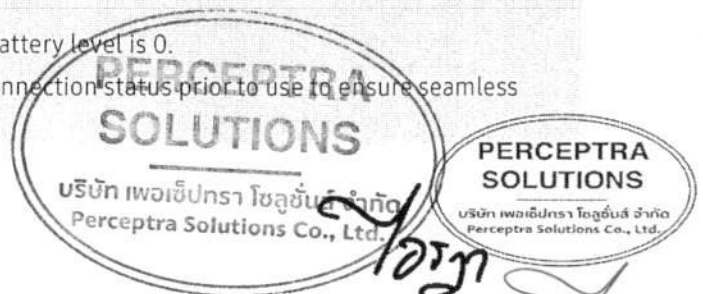


Icon	Name	Description
	SMPT icon	Switches to the SMPT settings screen.
	Display DICOM transfer icon	Shows the DICOM transfer status.
	Network Setup	Goes to the Network Setup screen.
	Display THU status icon	Indicates that the THU and the S-Station are connected correctly.
		Indicates that the THU and the S-Station are disconnected. * Make sure that system power is on and that the cable is connected.
	Display HVG status icon	Indicates that the HVG and the S-Station are connected and are working correctly.
		Indicates that the HVG and the S-Station are disconnected. * Make sure that HVG power is on and that the cable is connected.
		Indicates that the HVG and the S-Station are connected, but an error has occurred in HVG. You can select the icon to reset HVG and resolve the error. The details on the error can be found in the Error Handling pop-up.
<b>HU</b>	Display Heating Unit Status icon	Displays the status of the heating unit.
	Display Storage Status icon	Displays the remaining space in the storage.

4.1.7

Table 4-6. Description of Acquisition

- If the Detector icon is displayed in red, check if the Detector, access point, and S-Station are working properly.
- Be sure to charge the Detector when the battery level is 0.
- Check your wireless signal strength and connection status prior to use to ensure seamless communication.



### Control Panel

To start the system, press the power button. Remaining battery charge is indicated on the battery indicator.

If the battery indicator shows low level battery, immediately charge the battery.

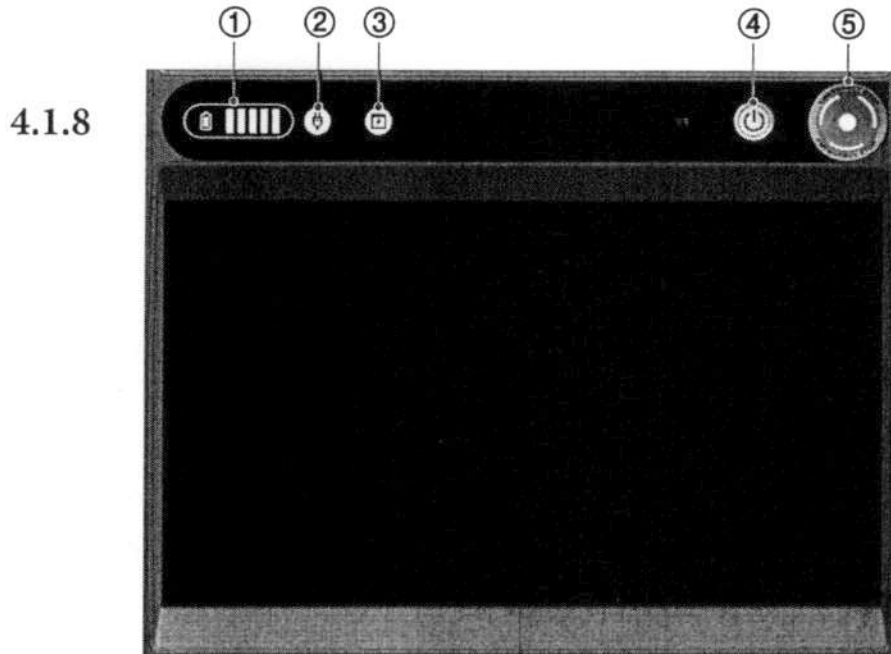


Figure 3-3. Control Panel

- ① Battery Indicator
- ② Connection Indicator to the Outlet
- ③ Battery Indicator of Detector Battery
- ④ System Power Button
- ⑤ Emergency Stop Button



#### 4.1.9 ■ **Detector Lock**

Detector locks help to store detectors safely. The storage slot with the charging port has 2 locks for S4343-W/S4335-W and S3025-W. The small storage for the S3025-W also has a lock, so the system has a total of three locks.

The detector can be locked by pressing the button on the storage slot. The lock will be released when the user logs into S-Station or selects the release icon after logging into S-Station. If the release icon is selected, all locks will be released at once.

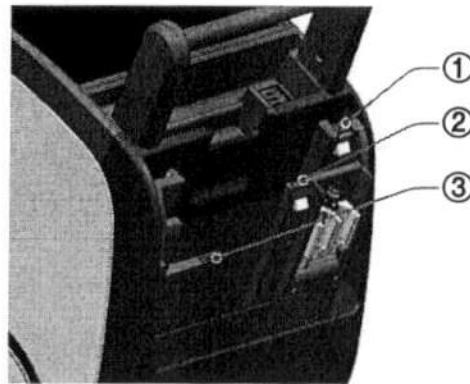


Figure 3-38. Locks for Detector Storing

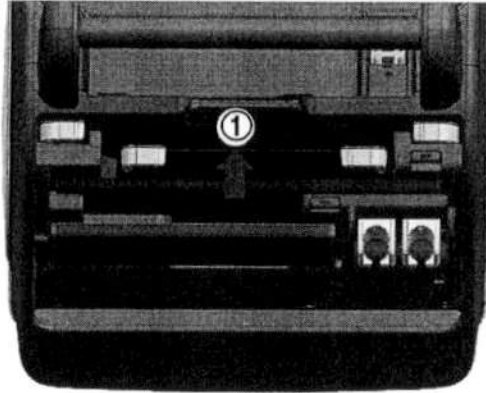
- ① Lock for S4343-W/S4335-W
- ② Lock for S3025-W (without charging port)
- ③ Lock for S3025-W (with charging port)



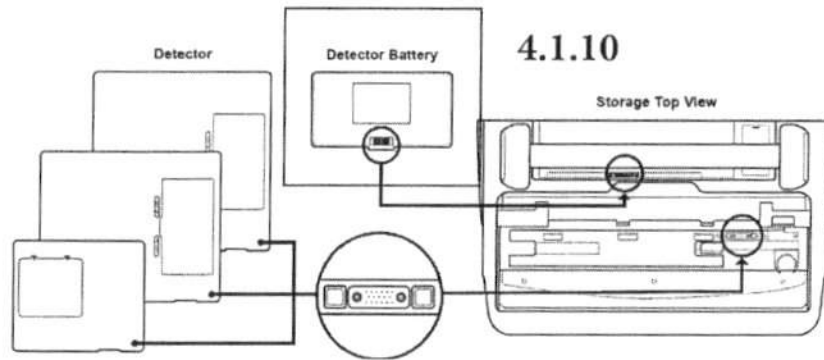


WARNING:

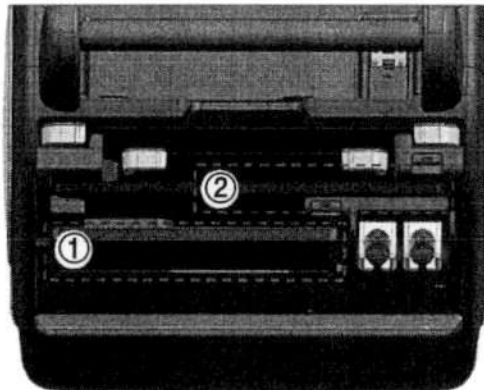
4.1.9



- A detection area on the detector should be turned to face the direction ① in order to charge the detector battery when storing detector. If the battery insertion part faces the direction ①, detector won't be charged and the detection area can be damaged.
- The location of the charging connector of the system can be found in below picture.



S3025-W can be placed in two storage slots as below:



- ① Storage Slot Without Charging Port
- ② Storage Slot with Charging Port



Handwritten signature in Thai script.



To : Samsung Electronics Co., Ltd.SPECIFICATION  
FOR  
XRR-3332X4.2.1 Toshiba Rotating Anode X-ray Tube Assembly  
for  
Diagnostic Radiography

Contents	Page
1. General Data .....	2
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3. Dimensional Outline .....	6
4. Outgoing Test .....	12
5. Warning .....	14
6. Cautions .....	15
7. Export Control .....	19
8. Limitation of Product Liability .....	20
9. Warranty on X-ray tubes .....	21
10. Seasoning of Tubes .....	22

Hereinafter, the company name "Toshiba Electron Tubes & Devices Co., Ltd" is stated "TETD".

Issued : 2016-04-15  
Revised :



*Handwritten signature and date:*  
Signature: [Handwritten signature]  
Date: 12/25/16

## ■ Emergency Brake Release Button

When an accident occurs, such as a system error, an exhausted battery, and so on, and the power-assist does not work, the brake can be released, allowing the user to manually move the system to a safe place before technical service is available.

### 4.4.1

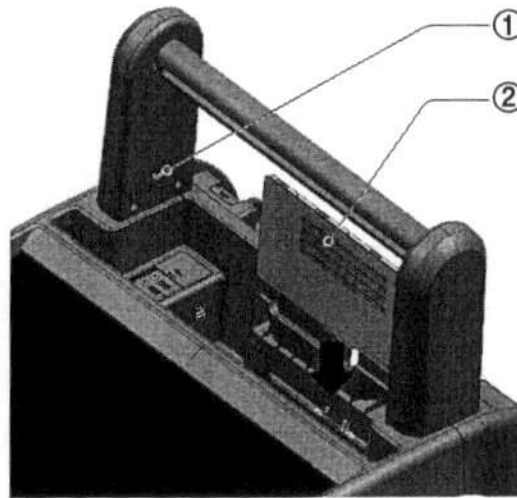


Figure 3-8. Emergency Brake Release Button

- ① Emergency Brake Release Button
- ② Detector Battery

Insert the detector battery into the charging port in the storage bay near the grip bar when power-assist does not work. Pressing the Emergency Brake Release Button allows the brake to be released and the unit to be moved manually by the user.

 When using the emergency brake release function, brake release is available for 20 minutes per a level of battery LED indicator.



**DANGER:**

**4.4.1**

**4.4.6**

- Drive the unit manually only when motorized movement cannot be performed.
- Never drive the unit up or down a ramp or inclined surfaces, and drive it only in flat surfaces to avoid personal injury or damage to equipment due to its heavy weight.
- Emergency brake release button does not work when system battery is working properly even if detector battery is inserted charging port and emergency brake release button is pressed.
- Emergency brake release button can be activated when circuit breaker is turned off because battery power is disconnected to the system. Never drive the unit along a ramp or inclined surfaces, drive it only in flat surfaces to avoid personal injuries or damage to equipment due to its heavy weight.

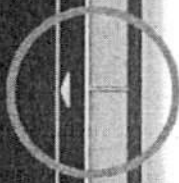


01\_QUALITY

# Flat Panel Detector : Enhancing Daily Workflow

4.5.1

## 1. Center-engraving



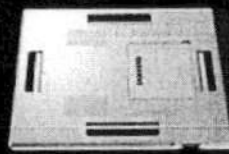
## 2. Side Chamfer



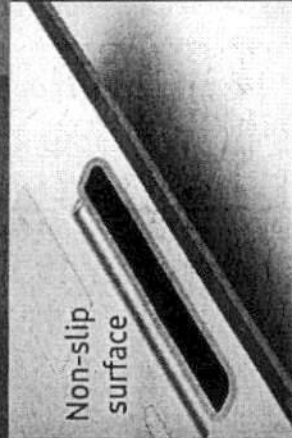
Angled edge



## 3. Rear Grip



Non-slip surface



SAMSUNG



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■ Service

4.6.4 You can add an item to the DICOM Service list. The available DICOM services are Store, Print, MWL, MPPS, and Query/Retrieve.

1. Store: Sets the store server to transfer the image to PACS.

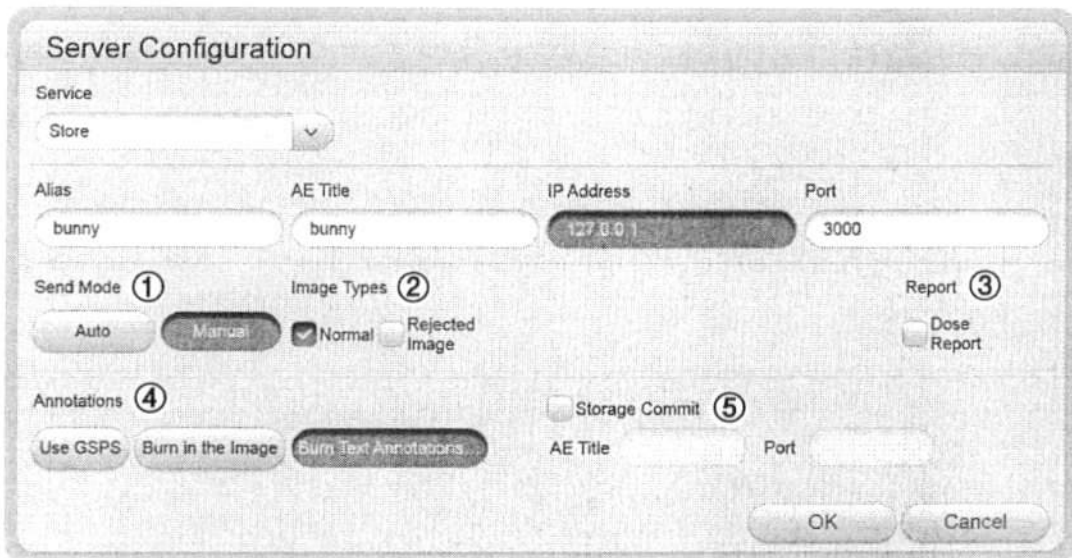


Figure 4-68. Store Configuration screen

No.	Name	Description
①	Send Mode	<ul style="list-style-type: none"> <li>• Auto: Select the End Exam button to send the captured image to the server.</li> <li>• Manual: Select the Send button on the Review screen to send the captured image to the server.</li> </ul>
②	Image Types	Set the format of images to be transferred.
③	Report	Specifies the server to which a dose report will be sent.
④	Annotations	<ul style="list-style-type: none"> <li>• Use GSPS: Annotations are transferred in GSPS.</li> <li>• Burn in the image: Annotations are included in the image.</li> <li>• Burn text annotations only: Only the text annotations are transferred.</li> </ul>
⑤	Storage Commit	<ul style="list-style-type: none"> <li>• AE Title: Create an AE title for the server to which storage commit will be sent.</li> <li>• Port: Specify the server port to which storage commit will be sent.</li> </ul>

Table 4-24. Description of Store Settings



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## ■ Entering and Managing Patient Information

You can enter or manage information about a patient from the Worklist in S-Station.

### Worklist 4.6.4 4.6.6

The Worklist screen lets you view, modify, add, or delete patient information (Exam list) for image capturing. You can enter the patient's name, ID, or accession # to search and retrieve the patient information from MWL or see the status of the exam at a glance.

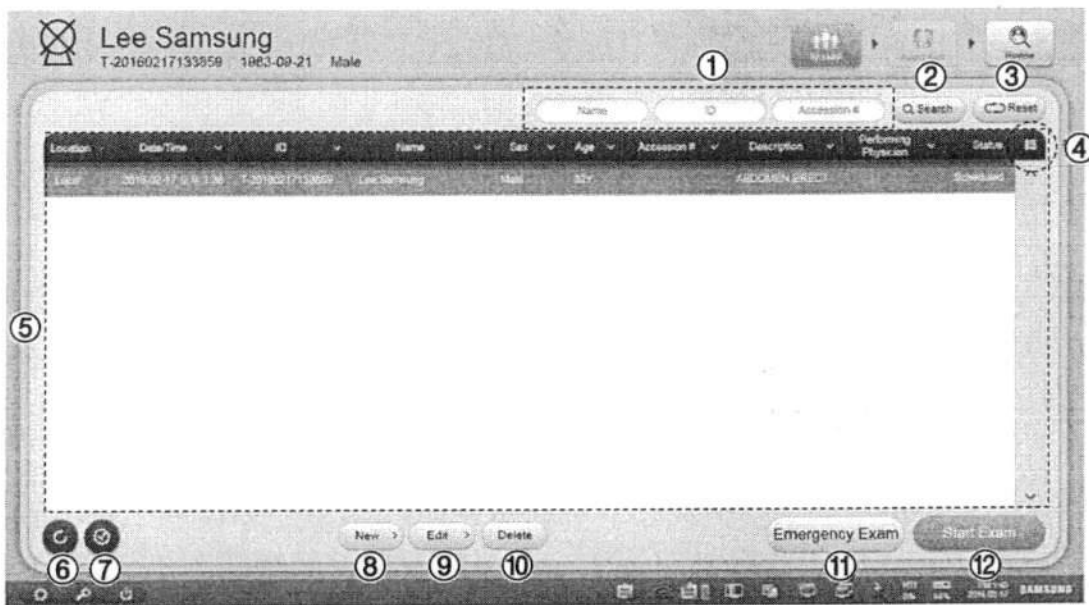
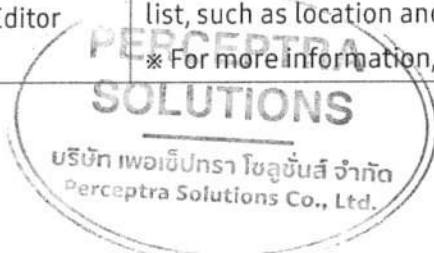


Figure 4-3. Worklist Screen

No.	Name	Description
①	Search Criteria	Enter the name/ID/accession # of the patient for the exam you want to find.
②	Search	Select the Search button to show the results of the criteria you entered in the Exam list. * MWL Exam Search is available only for current and updated MWL exams.
③	Reset Search Criteria	Lets you reset the search criteria values you entered to show all exams in the list.
④	Column Editor	You can set the columns that you want to check from the Exam list, such as location and date and time. * For more information, see "Column Editor".



*Handwritten signature and scribbles.*

■ Transfer and Save Image Tools

You can transfer or print the selected image or save it to an external storage medium.



4.6.4

Figure 4-31. Transfer and Save Image Tools screen




Button	Description
	Lets you send an image to the DICOM storage server. * For more information, please refer to DICOM Settings.
	Lets you print an image using a DICOM printer. You will see a screen where you can view and edit the output by selecting the Print button. * For more information, please refer to "Printing an Image".
	Lets you export the selected image to a USB storage device or a CD/DVD. You will see a screen where you can specify the target storage medium and file format by selecting the Export button. * For more information, please refer to "Exporting an Image".

Table 4-15. Description of Transfer and Save Image Tools

■ Layout Tools

You can set the view in the Image Viewer and view up to 4 images at once.



Figure 4-32. Layout Tools screen





Button	Description
	This mode displays one image on the screen.
	This mode displays two images horizontally on the screen.
	This mode displays two images vertically on the screen.
	This mode displays four images on the screen.

Table 4-16. Description of Layout Tools



*Handwritten signature*

**Creating Patient Information**

## 4.6.6

You can create the patient information you will be using for local capturing.

1. Select the New button to open the "New Patient" pop-up.
2. Enter or select the relevant information for each field.
3. Selecting the Save button after you enter the information will save the patient information and create a new list on the Worklist screen.
4. Pressing the Start Exam button after you enter the information lets you perform the exam immediately. To undo the entry, select the Cancel button.

The screenshot shows the 'New Patient' form with the following fields and callouts:

- 1 Patient ID: T-201511261003
- 2 Last Name: Lee
- 3 First Name: Samsung
- 4 Middle Name: (empty)
- 5 Birth Date (MM/DD/YYYY): 09 / 21 / 1983
- 6 Age: 32
- 7 Sex: Male (selected), Female, Other, Unknown
- 8 Accession #: (empty)
- 9 Operator: (empty)
- 10 Performing Physician: (empty)
- 11 Referring Physician: (empty)
- 12 Procedure: CHEST PA
- 13 Temp ID: (empty)
- 14 Add > button
- 15 Save button
- 16 Cancel button
- 17 Start Exam button

A note at the top right states: "The checked item(s) must be supplied."

Figure 4-6. New Patient screen

**Rejectand Usage Analysis Tool** 4.6.13

This tool analyzes usage records for the device and presents various statistical data in tables and charts.

Use the same ID and password you use for S-Station to access this tool.

