

P.O.# 593-B81027

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TRADE-IN OF EE 49887 GE OPTIMA
XR220AM MOBILE X-RAY

PO	Trade-in EE	Serial Number	Acquisition Date
593-B81027	EE 49887	1029044WK3	02/01/2013

Introducing Samsung's newest DR imaging system, the GM85 Mobile Digital Radiographic unit. The GM85 offers high quality dose efficient DR performance utilizing Samsung's S-Vue Detector technology that provides the lowest dose and highest DQE in the industry. The S-Vue offers improved image sharpness and clarity, with great depth and range of image ensuring image quality and repeatability. Three DR detector options are available, 17" x 17", 14" x 17" and 12" x 10" for optimal use. All three detectors can be used on the portable system simultaneously and are constantly charging ensuring that you will not have to replace batteries at the most inopportune time. A DAP meter is built into the collimator to provide dose monitoring for each patient. Precise positioning buttons offer handle free, subtle four way adjustments when facing narrow patient rooms or other tight areas. There is even a laser guide to verify Source to Image Distance.

The Samsung GM85 is designed to meet the most difficult challenges in mobile imaging, the challenges seen in Radiology departments every single day.

System includes:

S4335-W - FPD (Wireless S-Vue Detector)

The ultrasensitive FPD (Flat Panel Detector), developed based on Samsung Electronics' outstanding TFT technology, features proprietary ALDAS (Advanced Low Dose Amorphous Silicon Sensor) technology. ALDAS improves patient safety and the reliability of the diagnosis by acquiring high-resolution images with a very small amount of radiation

Digital Detector

Detector type	Amorphous Silicon TFT/Cesium Iodide Scintillator (CsI)
Dimensions (Active field)	17" x 14" (43cm x 35cm)
Active detector matrix	3040 x 2466 pixels
Effective area	429mm x 345mm
Pixel pitch	140µm
A/D conversion (Pixel depth)	14bits gray scale
Dynamic range	> 14000LSB
Spatial resolution	3.57 lp/mm
Detective Quantum Efficiency (DQE)	73% (0.1lp/mm) typical
Modulation Transfer Function (MTF)	84% (0.5lp/mm) typical
Battery Charging Time	6 hrs (tethered) - 3 hrs (charger)
Battery Life	160 Images for 4 hrs.
Installation	Wireless
Weight	3.1kg



Generator Specifications:

Power (kW):	40
kVp Max:	40-150
mA Max:	10 – 500
mAs Max:	0.1 – 500

Tube Specifications:

Nominal Tube Voltage (kVp):	150
Heat Capacity (HU):	300 kHU
Anode Angle (°):	14°
Focal Spot (mm):	0.6/1.2

Mechanics:

Column Type:	Collapsible
Tube Reach (cm):	79.3 ~ 135.5 (Center of column to Focal spot)
Column Rotation	$\pm 315^\circ$
Focal Spot Range (cm):	55 ~ 203
Volume Rotation ($^\circ$):	± 315
Tube Rotation Arm Axis ($^\circ$):	$\pm 180^\circ$
Tube Rotation Arm Axis ($^\circ$):	$+90^\circ \sim -30^\circ$
Footprint (W x L x H in cm):	55.5 x 125.8 x 139.6
Unit Weight (kg):	349



CONVENIENT & INNOVATIVE

Intuitive SID Guide & S-Align

SID (Source to Image Distance) Guide supports detailed device positioning with multiple SID settings. S-Align allows precise alignment and enhances the imaging quality by displaying the detector's angle on the THU.

Easy Quick Positioning

Quick Positioning allows handle-free, precise body movement by simple button clicks on THU and enables reduction of user workload.

Quick charging and long-lasting battery

With fast charging, GM85 powers up from 0 to 100% in only 2-4 hours. With a long-lasting battery, it gives you the power to keep going for a full day without additional charging* (supports 220 shots and 20km of moving distance once fully charged)

Base Battery Input:

Type:	Li-ion Battery
Input Outlet:	Free Voltage (100-240VAC, 50/60Hz)
Charge Time (hours):	Approx. 2 ~ 4 hr. (Depends on capacity of outlet)

Detector Battery:

Number of Batteries:	2 With Each Detector
Battery Charging Console:	One with Each System

Experience GM85's unique innovation features such as SID Guide and S-Align, enabling users to save time and optimize workflow. Extensive long tube reach (1355 mm / 53.3 in), easy quick positioning, large storage and intuitive multi-touch features also provide superior user convenience.



SID Guide

- According to protocols
- 3 types of SID (100/130/180 cm)
- Applied automatically

SID Guide

SID Guide (Source to Image Distance) supports detailed device positioning with multiple SID settings.

S-Align

S-Align displays the detector's angle to the THU for precise alignment and enhances the quality of imaging.

30°

S-Align

Collimator Specifications:

Type:	4-axis auto blade
Light:	LED
Auto Filter	0.1, 0.2, 0.3 mmCu
Illuminance	160 lux
Inherent Filtration	Over 1.4 mmAl @75kVp
Rotation Angle	-90 ~ 180
ETC	Measuring Tape DAP Integration*

Variable Filtration:

Built-in variable filtration delivers the optimal	setting for paediatric exams
Setting 1:	0mm AL
Setting 2:	1mm AL + 0.1MM Cu
Setting 3:	1mm AL + 0.2mm CU
Setting 4:	2mm AL

SID Laser:

Dual laser verifies 100cm, 130cm, and 180cm Source to Image Distance (SID) preset by the anatomical region

SID Laser:

Driving:

Speed:

Max 5.6 Km/Hr.

Slope:

Max of 7° Slope

GM85 provides advanced patient care with diagnostic confidence through leading-edge imaging functions such as SimGrid and TLE (Tube & Line Enhancement) along with S-Vue and S-Detector.

SimGrid produces superior image quality compared to images captured on systems without the use of a conventional grid through a reduction of scatter radiation effects, generating improved image contrast.

TLE - Improve clarity of tube and line in chest images with Tube & Line Enhancement feature. With a single on-screen click, the companion image is created without additional settings or x-ray exposure, streamlining the process.

Before



Case 1. Abdomen Supine before SimGrid

After



Case 2. Abdomen Supine after SimGrid

Before



Case 1. Chest AP

After



Case 2. Chest AP with TLE

Dose Area Product (DAP):

DAP measures the amount of radiation delivered with each exposure and can be interfaced to PACS to record the dose of each patient.

Chamber Voltage (Volts): 300

Stabilization Time (Min): 5



Always caring for our children

Optimized 6-stage weight dependent imaging enables pediatric patients to avoid unnecessary x-ray exposure using precise dose management, resulting in superior image quality. Child-friendly design stimulates pleasant imagination and provides a playful environment for both parents and children.

Pediatric Exposure Management

Patient Size



6-stage weight dependent imaging

S-Detector*



Pediatric cover design**

** Pediatric cover design is optional



2 Copies of Operator's Instruction Manual
2 Copies of Complete Technical Service Manual
2 Copies System Manager's Manual

On-Site Applications:

5 Days of On-Site Applications Training per unit

Bio-Med Training:

(2) Seats Included with each unit

Part#	Description	Quantity
DGR-MB1BA1/WR	Samsung GM85 with 14x17 Detector	1
	Biomed Training/Person	
DGR-SM3TDD/WR	10x12 Detector Only	1
DGR-ACCGP6	14x17 Grid/Handle	1
TRADE	Trade In on existing GE Unit	1