

Allengers

Passion for excellence



DigiX Series

Digital Radiography System

Explore whole *New Possibilities*
..... in *Digital Radiography*

Multi-functional

Digital

Radiography Systems

for all Imaging Techniques...

Mars 15-80

ABOUT US

Welcome to the world of Allengers, a world that understands your needs, a world that actually cares. Allengers, an Indian MNC, National Award Winner - Quality Products from the Prime Minister of India, is a leading manufacturer covering a wide spectrum of medical diagnostic equipments. Allengers product range offers the latest fixed digital radiography systems.

Allengers, years of expertise in imaging solutions, coupled with innovative research, results in providing a cost effective, dynamic and digital radiography solutions to the medical world.

DIGIX SERIES

Allengers DigiX Series of fixed digital radiography systems (ceiling suspended system with auto tracking / auto positioning feature and universal radiography system with U-Arm stand) are specialized models for general and specialized Radiography applications. These systems are available with single detector / dual detector options as per user intended applications.

It's all you need
..... for convenience (Ease + Speed)



Advantages

- Preview image is available in less than 5 seconds (no long wait for patient).
- Perfectly dry film printing (no chemicals).
- No physical movements of cassettes (faster operation).
- Wide dynamic range (soft tissues and hard bones can be seen together).
- Digital image processing (overcomes errors in exposure factor selection).
- Superb image quality due to fine pixels and high contrast range.
- Efficient and user friendly work flow due to DICOM based system.
- Easy to connect with existing HIS / HMS / RIS / PACS in a hospital environment.
- Post processing adds more to the image quality.
- Dual energy subtraction and image stitching are possible (optional).

AUTO IMAGE STITCHING SOFTWARE (optional)



Image stitching feature is very useful for scanning long anatomies like spine and leg. MARS DR offers automatic image stitching feature which only requires selecting the start and end point of anatomy and 2 or 3 exposures are taken to cover the anatomy. Rest everything is handled by the software system and within no time a stitched image is available. This system can stitch any number of images.

Accelerate **workflow** with.....
Advance imaging **solutions**.....

DUAL ENERGY SUBTRACTION (optional)



Standard PA

Soft Tissue Image

Bone Image

Dual energy subtraction technique produces a very high quality image of low density and high density structures in human anatomy like chest where rib cage and lungs are required to be seen together on same film. This procedure is completed with two X-Ray images taken at two dose levels, high dose for hard and low dose for soft structures. Then these two images are processed in software to produce a single image showing both hard and soft structures.

DigiX CSAadv

(Ceiling Suspended Automatic Advanced System)

Digital Radiography system with ceiling suspended (automatic advance) tube stand with tracking of VBS and digital touch display for display of acquired X-Ray image and parameters on tube stand.

3D CEILING SUSPENDED AUTO TRACKING SYSTEM (Single / Dual detector system)

Ceiling suspended tube head motorization and synchronization - Auto Tracking

- Tracks detector positioning (vertical stand or 6 way table) for accurate source to detector positioning.
- Oblique tracking of tube head synchronized with FPD in VBS (optional).
- Unlimited positioning freedom.
- Maximized productivity.
- Increased diagnostic capabilities and patient care.
- Better throughput.
- Excellent reliability.

Digital Touch Display

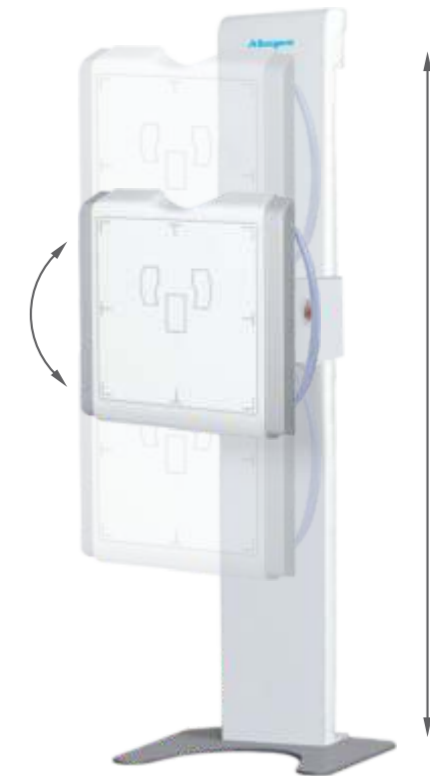
This digital touch PC display on tube stand through which parameters (KV and mAs) selection can be done and features such as SID, Angle display and display for the acquired image are displayed on it.

Floatex⁺ (6-way Table) with Flat Panel Detector

Floatex⁺ is a fixed table mounted on the floor, provided with 6 dimensional movement of table (4 way table top and 2 way up/down) which is for the ease and comfort of patients as it lowers down to a comfortable position. It is provided with FPD beneath the table top which is electromagnetically locked and needs to be unlocked by the foot switch for its movement.

Ceiling suspended tube through its auto tracking function with the detector inside the table can be positioned conveniently along the length of the table thereby avoiding any manual positioning.

Integra X
(Synergy DR workstation)



Vertical Stand with Flat Panel Detector

In chest position, the vertical movement of the detector will cause the tube to follow the movement to maintain constant in - beam adjustment.

COMPONENTS OF AN EFFICIENT SYSTEM

- | | |
|---------------|--|
| Detector | : Single / double |
| Detector type | : Fixed / portable (wired / wi-fi) |
| Stand | : CSA - ADV (ceiling suspended automatic advanced) stand |
| VBS | : MOT (motorized) |
| Table | : MobiT Series / Floatex Series |
| IntegraX | : (Synergy DR workstation) integrated X-Ray image control console. |

Illustrations as shown above show wide range of movements of tube column / vertical bucky stand / table for various procedures.

DigiX^{CSA}

(Ceiling Suspended Automatic System)

Digital Radiography system with ceiling suspended (automatic) tube stand.

Ergonomic & Unique Design

..... Superb Performance



Floatex Table with FPD



Motorized Vertical Bucky Stand

Ceiling suspended tube stand with auto tracking synchronized with the detector inside the vertical bucky stand and table.

COMPONENTS OF AN EFFICIENT SYSTEM

- Detector : Single / Double
- Detector type : Fixed / Portable (wired / wi-fi)
- Stand : Ceiling Suspended Automatic (CSA)
- VBS : Motorized
- Table : MobiT Series / Floatex Series
- IntegraX : (Synergy DR workstation) integrated X-Ray image control console.

IntegraX
(Synergy DR workstation)



DigiX^{CSM}

(Ceiling Suspended Motorized System)
Digital Radiography system with ceiling suspended (motorized) tube stand.

DigiX^{CS}

(Ceiling Suspended System)
Digital Radiography system with ceiling suspended (manual) tube stand.

A Versatile High Resolution Digital X-Ray System



Mobile Table (MobiT 6)



Motorized Vertical Bucky Stand

COMPONENTS OF AN EFFICIENT SYSTEM

Detector	:	Single / Double
Detector type	:	Fixed / Portable (wired / wi-fi)
Stand	:	CSM / CS
VBS	:	Motorized / manual
Table	:	MobiT Series / Floatex Series
IntegraX	:	(Synergy DR workstation) integrated X-Ray image control console.

Integra X (Synergy DR workstation)



DigiX_u

Digital Radiography System with X-Ray tube fitted on a versatile U-arm stand along with flat panel detector embedded inside the detector stand.



U-Arm Stand

The vertical movement of the stand and its rotation are balanced and locked by means of electromagnetic brakes thereby ensuring full safety to the patient and operator.

Detector Assembly

Bucky fitted with flat panel detector can rotate $\pm 30^\circ$ (extendable upto $\pm 60^\circ$ as per user intend application), for oblique positions. Grid can be removed easily when required.

Bucky is fitted with anti collision device to protect the detector assembly.

Mobile Table (MobiT Series)

In combination with a mobile table this unit is a very efficient solution for emergency as well as for general radiography.

COMPONENTS OF AN EFFICIENT SYSTEM

- Detector : Single
- Detector type : Fixed
- Stand : U-Arm integrated
- VBS : Inbuilt in U-Arm
- Table : MobiT Series
- IntegraX : (Synergy DR workstation) integrated X-Ray image control console.

IntegraX (Synergy DR workstation)



Hand Positions



Laying Down Positions



Upright Extremity Positions



**FLEXIBLE
POSITIONING
OF
VARIOUS
BODY PARTS**



Chest Positions



Skull/Neck Positions



Remote Control

Remote control for easy positioning of U-Arm.

DIGITAL DETECTOR TECHNOLOGY

Digital X-Ray is an important technology for today's diagnostic medical imaging, radiation therapy and all sorts of radiographic examinations (human and veterinary)

Special Features of Flat Panel Detector

Conversion	Indirect conversion	
Technology	Amorphous silicon (a-Si)	
Scintillator	Cesium Iodide	
Size	43 cm x 43 cm (17" x 17")	35 cm x 43 cm (14" x 17")



VARIANTS OF FLAT PANEL DETECTORS

Portable (wired / wi-fi) and Fixed (wired)

A complete imaging solution integrated to give unparalleled imaging quality due to excellent quality FPD.

The use of flat panel detectors increases work flow eliminating most manual activities such as loading, transporting cassettes and developing films.

High A/D conversion guarantees high resolution and high contrast images.



Portable wireless (wi-fi) FPD : Cable free handling ensure better positioning possibilities specially in critical cases.



Fixed FPD
(embedded inside the Floatex table / VBS)



Portable Wired FPD

Integra X

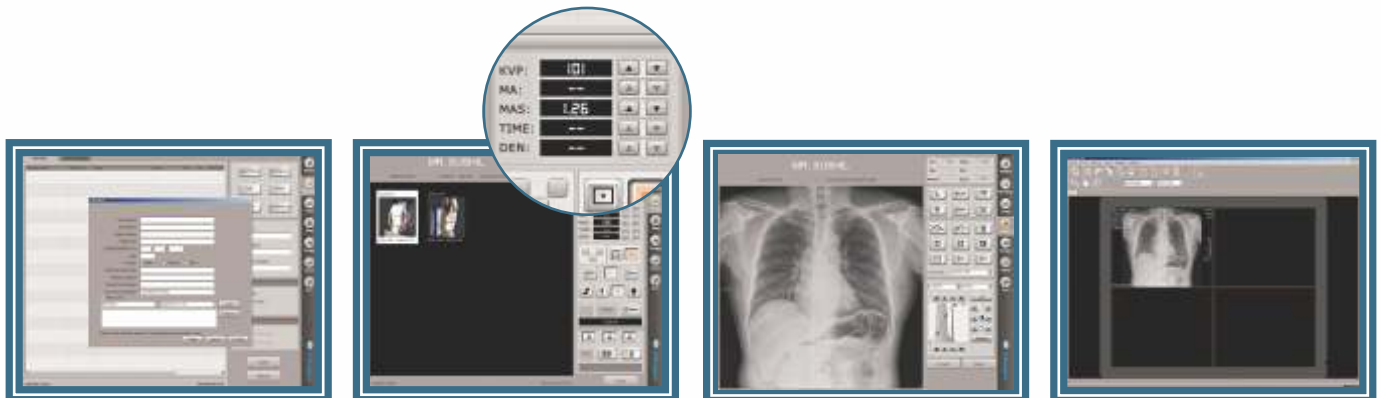
(INTEGRATED X-RAY / IMAGE CONTROL CONSOLE)

This software provides complete control of all image capture functions within the examination room, enhancing the entire workflow by delivering diagnostic images instantly and allowing users to move X-Ray images electronically to remote workstations, image archives and printers.

- X-Ray parameters increase and decrease switches.
- Ready and X-Ray ON switch with indicators.
- Bucky selection switch.
- Inbuilt over load protection device.
- Self diagnostic program with indicators for earth fault error, KV error, filament error, & tube's thermal overload.
- Anatomical Programming Radiography (i.e. APR) : Preprogrammed parameters of human anatomy which helps the user to select exposure parameters based on body part, examination view and size of the patient. Since it is a computer based system (full system integration) so any number of organ programming combinations is possible. User can define his own organ parameters and can edit the existing parameters to his satisfaction and comfort level (expandable as per user's requirement).
- APR programs: More than 1000 programs. Expandable as per user's requirement.
- UPS for uninterrupted usage of digital workstation.

Integra X

(SCREEN SHOTS)



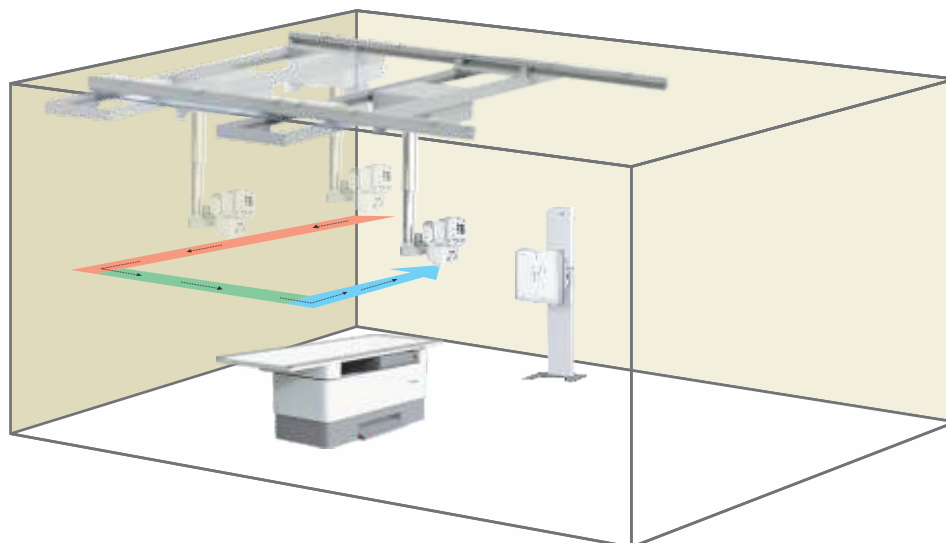
Patient Entry

Exam Selection

Image Processing

Printing Layout

Integrated Solution : Reducing operator error and enhances speed of workflow, thereby improving productivity



ROOM LAYOUT PLAN

Illustration showing automatic route of the X-Ray tube in synchronisation with the table detector / vertical bucky detector.

In table / vertical bucky position, the table / vertical bucky height will cause the tube and detector to follow the movement to maintain constant SID.

MAJOR TECHNICAL SPECIFICATIONS

High Frequency X-Ray Generators for General Radiography.

MARS (Model)	15	30	40	50	50 ⁺	65	80
KW Rating	15	30	40	50	50	65	80
Max. KV	125	125	125	125	125	150	150
mA (upto)	250	400	500	630	800	800	1000
Collimator	Motorized / Automatic		Min : 00 x 00 cm Max : 48 x 48 cm at 100 cm				
X-Ray Tube	Rotating Anode X-Ray Tube						
Interface	LAN interface for printer, PACS and local archiving system. RS - 232 / 485 interface for generator control.						
Anatomical Programming (APR)	Human body programs (VET programs - optional)						
Compatible Tables	Floatex Series (Fixed Tables) : ■ Floatex : 4 way movement table. ■ Floatex⁺ : 6 way movement table. MobiT Series (Mobile Tables) : ■ MobiT / MobiT C : Standard horizontal table. ■ MobiT - 4/4C : 4 way movement table. ■ MobiT - 6/6C : 6 way movement table.						
C - Carbon fibre table top	(all other table models are with bakelite table top)						
Options	Automatic Exposure Control : Solid state automatic exposure control device with multiple chambers. Printer : Dry DICOM printer. Advanced Clinical Solutions : Auto image stitching -spine and long bone imaging with repeat and reject feature. Dual Energy Subtraction DAP : Dose Area Product						
Power Requirement	: 440 Volts \pm 10% (model specific \pm 20%), AC, 50/60 Hz, 3 Phase with line resistance less than 0.4 ohms. (or as per voltage/freq. available). Output power = model specific : 1 phase 230 Volts AC \pm 10%, 15 Amp (optional) in selected models						

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For detailed technical specifications, please refer to the respective product data sheets / quotation.

Due to continuous product improvements, specifications and appearance are subject to change without prior notice.

Quality, System
& Safety
Certifications



ISO 9001:2008



ISO 13485:2003
EN ISO 13485:2012



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BIS APPROVED