



# PRODUCT DETAILS

## I. Application

It is widely applied in medical imaging center, Emergency center, Physical Examination Center Physical Examination Center, ward , ICU, CCU, intensive care unit .etc.. To satisfy the digital imaging works of the Human bodies such on the head, limbs, chest, spinal, belly .etc



## II. Main Features

**Touchable 15" LCD Screen**



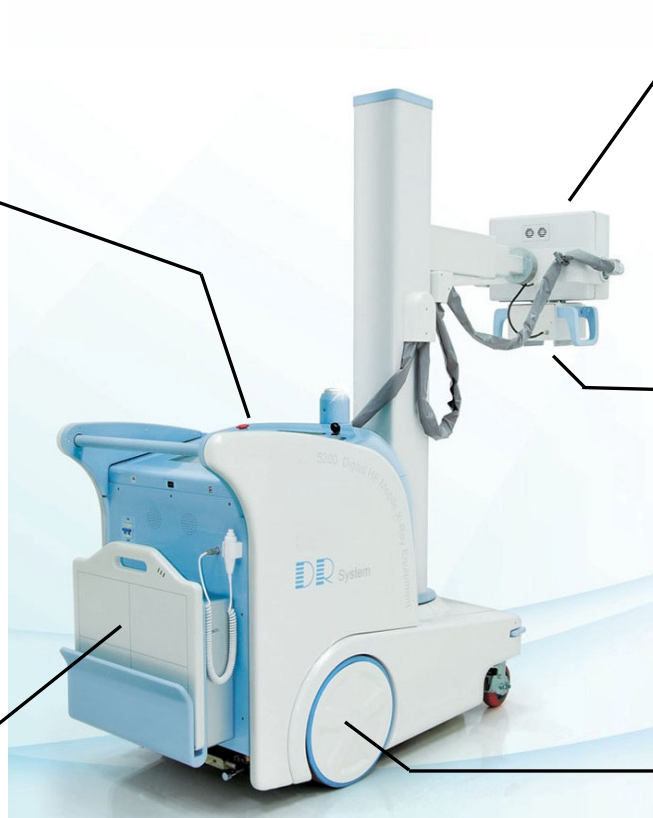
**High Frequency Integrated Generator**



**Microwave-testing Collimator**



**The world leading Noncrystalline Silicon Flat Panel Detector**



**Built-in Super Capacitor**



## 1. Combined Type of generator and X-ray tube:



We are the first manufacturer who supply the unique and advanced 25KW high power combine type for mobile X-ray machines in China. To satisfy the photography of the whole body, various positions. Rotate double anode 0.6/1.3, with high heat capacity of 1200KHU Digital micro-processed closed loop control and malfunction alarming system. To reduce the dose of X-ray, protect the patients and doctors very well. Touchable LCD screen, beautiful appearance and convenience to operate.

## 2. Portable Flat Panel Detector

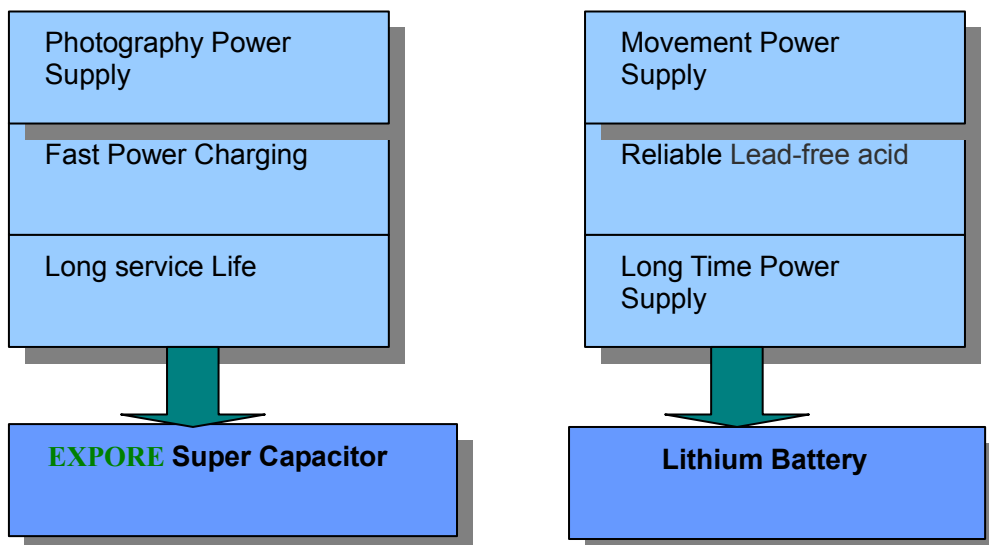
CesiumIodide +Noncrystalline Silicon Flat Panel Detector

**THALES PORTABLE 3543C**  
Field of View : 14"×17"  
Spatial Resolution: 3.5Lp/mm  
Pixel Size: 144µm  
Output Gray Scale: 16bit  
DQE : 75%



## 3. Power Supply

### >1. Dual Power Supply System



## >2. Low requirement for the Net Electric.

- Generally speaking ,High Power X-ray machines has high requirement for the power supply. Some times, the machines can not be normally used due to the short of power supply. It will be Consumption of wealth and time to solve the problem. If give up the using of the high power X-ray machine, then it must influence the development of the hospitals as well as the diagnosis. This problem is always be with the big power machines.
- To solve this problem, our PLX5200 Mobile DR System adopts the super capacitor technology. This technology has lower requirement to the Net Electric, Single-phase power charging can make photography with big power. It also has advantages on the times of fast charging, discharging .

## >3. Brief Introduction of the Super Capacitor

- For the traditional storage battery ,the electric charge is done by the Faraday electrical transfer after the Chemical reverse. It has the disadvantages on the short service life, long charging time, often replacement, great influence by temperature. And the service life time will be greatly reduced by the big current.
- The super Capacitor adopts the double electric double layer to solve the disadvantages of the traditional battery. Comparing to the electrolytic capacitor(0.1 $\mu$ F-1F),our super capacity has over 650F capacity. It has the advantages such as :Fast charging, high efficiency, Green and Environmental Protection, long service life(It can discharge for over 100000 times),wide temperature range , non chemical reaction ,safe and lower impedance .This super capacity is widely used during the Shanghai World Expo.

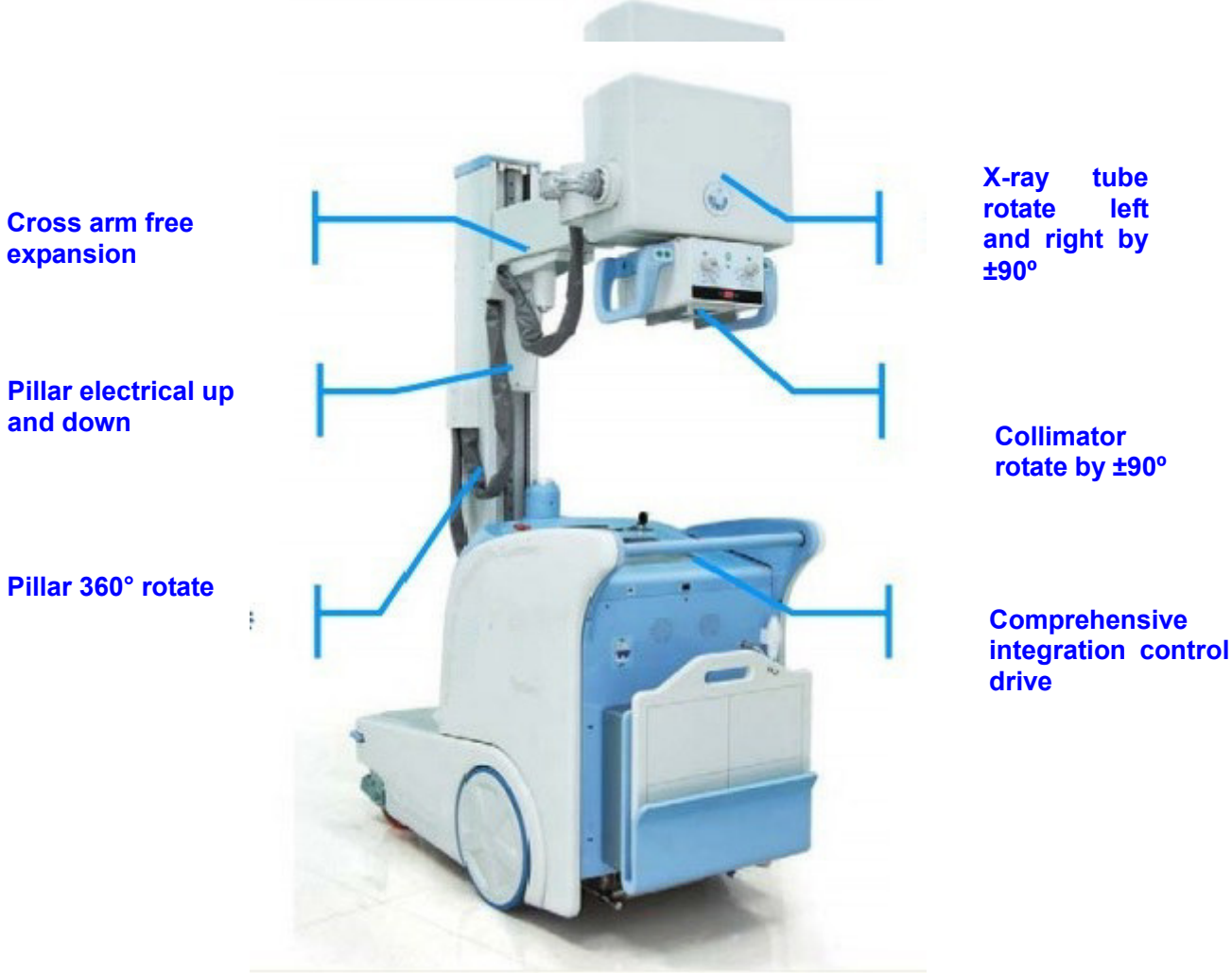
### ● Super Capacitor Characters

|   |  |
|---|--|
| 1. <b>Fast charging</b>                           | 95% Capacity after charging 10S-10Min  |
| 2. <b>Long service life</b>                       | 100000 times depth charge and discharge cycle use,no "memory effect"   |
| 3. <b>High Discharge Ability with big current</b> | High energy conversion efficiency,low power loss, Large current energy cycle efficiency $\geq$ 90%   |
| 4. <b>High Power Density</b>                      | 300W/KG~5000W/KG, 5~10 times than the battery, $\geq$ 20 images/hour   |
| 5. <b>Charge and discharge circuit is simple</b>  | No need the complicated circuit of the rechargeable batteries, high safety, free maintenance. Automatic battery charging when the unit is plugged in, even when it is being used.<br><br>When the main power is out of service, it will automatically transfer to battery to continue exposure work. |

|  |  |
|--|--|
| 6. Ultra-low temperature                       | Wide temperature range -40 ~+70°C,the battery level is displayed on the screen             |
| 7. Green environmental protection power supply | Green to environment during the whole process of producing, using, storage and disassembly |
| 8. Reliability                                 | Continue to exposure with mains power in case of detector battery failure                  |

>4. Mecanical Movement

- Movement





Horizontal movement range of X-ray tube: 500mm

Vertical movement range of X-ray tube: 1100mm

Maximum incline for the movement:  $\leq 5^\circ$

### **Electric Driven**

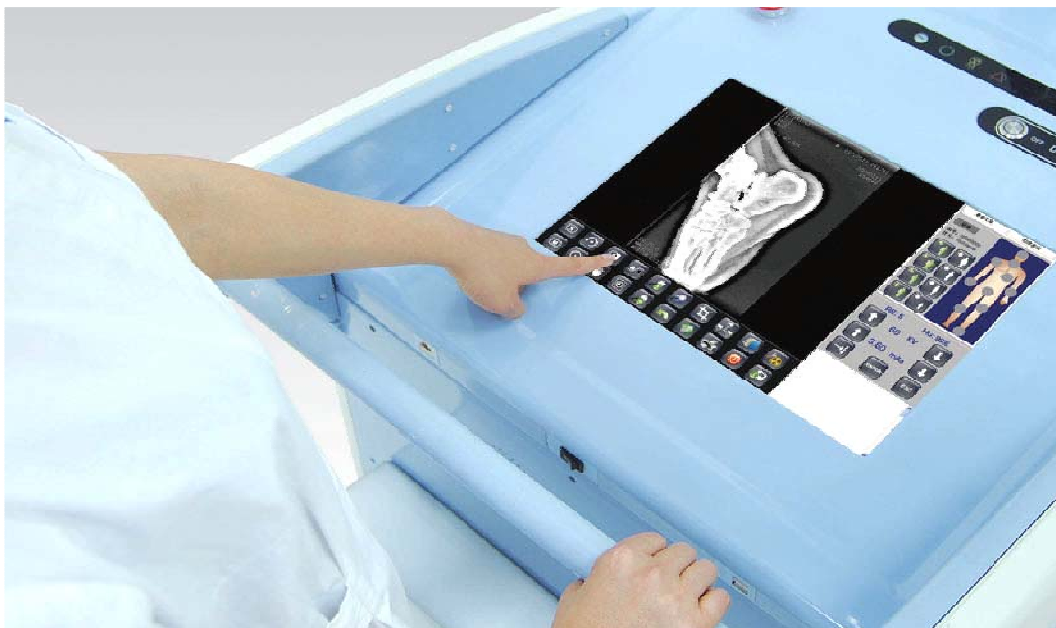
Dual motor drive design adjustable speeds for the forward and backward movement. Enough power, reliable performance; Movement protection device front the machine. It will stop the movement when touching any barrier. Can zero radius left and right turn, Manual movement is possible in case of battery failure



- **Multiple- angle photography**

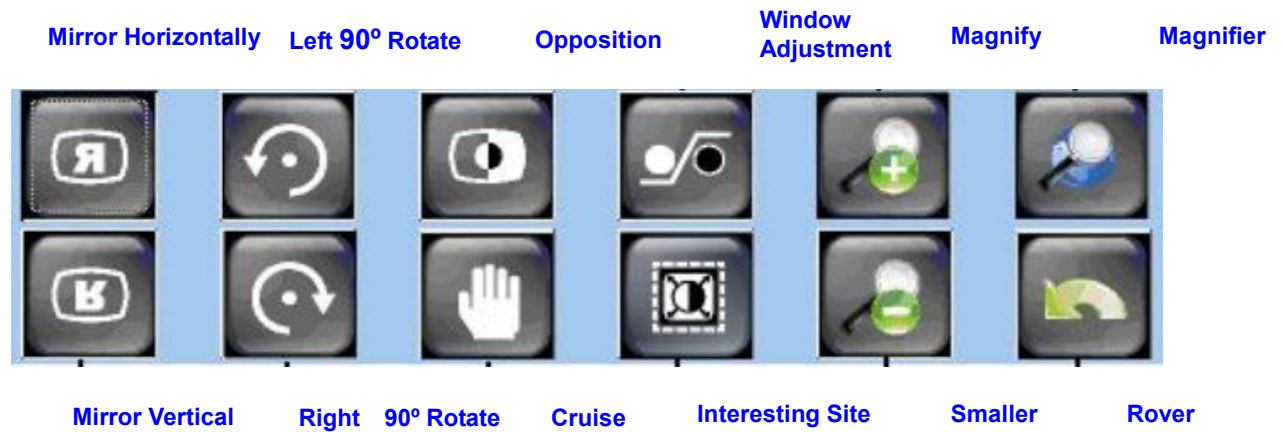


### **VI. Advanced Software System**



- Large touchable 15 " LCD screen design showing kV and mAs etc., cooperative development image processing software with the world leading CONTEXTVISION team. Especially for the parameters setting of the special body parts. International advanced technology.
- The interface of working station include: Patients information module; Image viewing module; imaging processing tools module; Internet transmit; Film print module; Backup copy module; Panel initialization. The workstation is concise and satisfy the needs of clinical diagnosis.





- Human graphical touchable LCD screen design,8 kinds of body shapes and 10 kinds of body parts combination parameters selection.And the parameters can be modified and saved by operators themselves according to their specific needs.

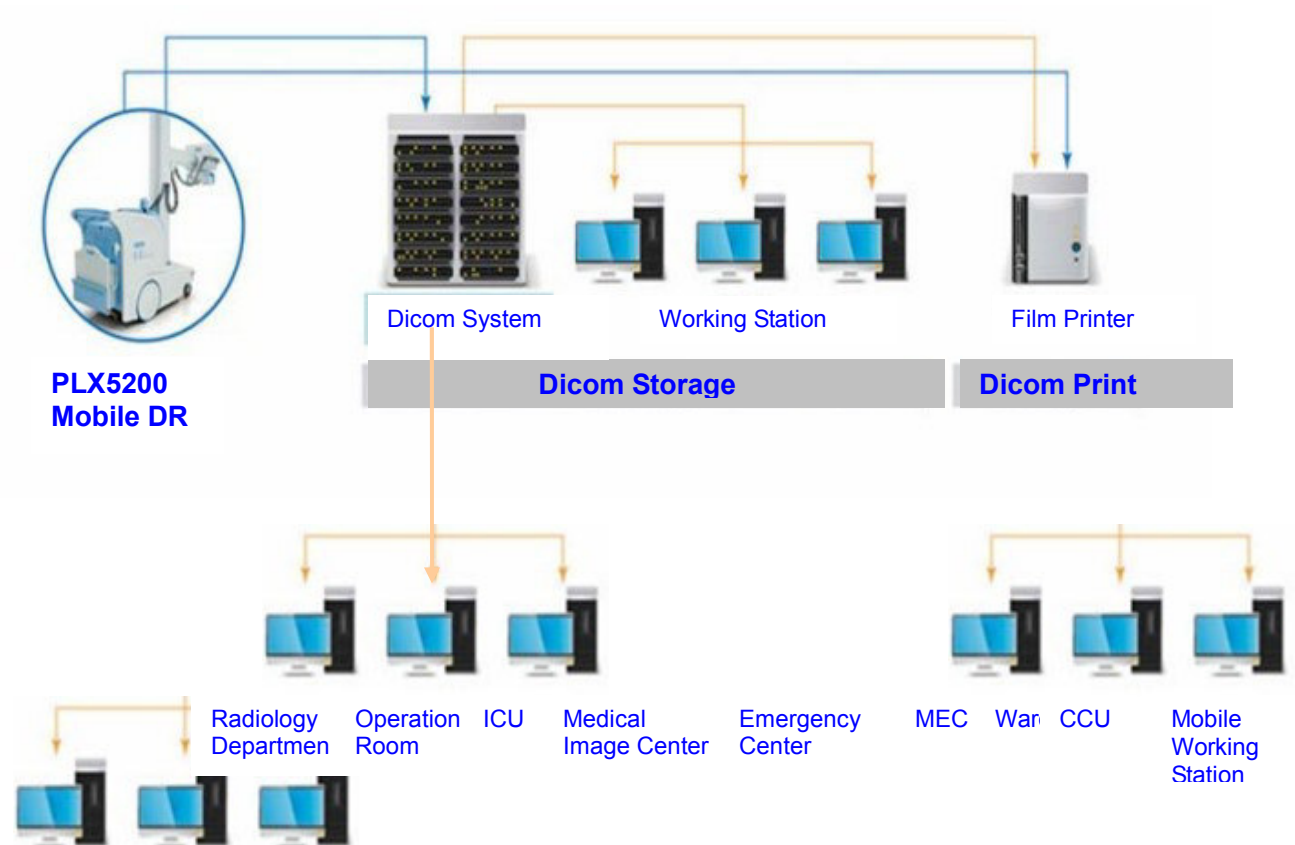
#### IV. “Mobile X-ray room”

##### 1、Wireless Transmission

Built-in wireless network card.The information of data,materials,pictures can be connected to the hospital’s router by the wireless network card.To connect to the PACS and RIS system.The wireless transmission is of fast,convenient and increase the working efficiency.

## 2、 Network function

Worklist Registrtrion  
Dicom Storage  
Dicom Film Print  
Dicom Files transmit



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## V. “The Internet of things”- Remote maintenance system

XR-5200 has “The Internet of things” function which means remote maintenance guidance functions to fully assist customers,the function include:

- **Equipment information management**  
Information record for the machine,and kept updated
- **Customer information Management**  
Unified information management of customers,sales person and equipment ,convenient for factory to contact and maintenance.
- **Remote guide of the equipment operation**  
Realtime guidance for customers how to operate the machine,increase working efficiency
- **Images files transmission and diagnose**  
Remote checking of images from customers,and supply certain diagnose assistance
- **Working station software & MCU upgrading** ·  
Increase equipment performance and solve software malfunction by upgrading the software and MCU
- **Remote video communication**  
Support realtime video communication between factory and equipment users  
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- **Tele-medicine**  
A Telemedicine platform is supplied to hospital,by which it could realize hospital information displaying, image browsing, medical record checking, diagnostic reporting, email or SMS reminding etc. And administrator could manage the system by his own.

## VI Configurations

| Type                                | Item   | SPECIFICATIONS                     |  |
|-------------------------------------|--|------------------------------------|--|
| 1.High frequency X-ray Tube         | Max output power   | 25kW                               |  |
|                                     | Main Inverter Frequency  | 60kHz                              |  |
|                                     | X-ray tube   | Focus                              | Small focus: 0.6; Large focus:1.3  |
|                                     |  | Rotation anode speed               | 3000rpm  |
|                                     | Heat capacity  | 900kJ (1200kHU)                    |  |
|                                     | Tube current   | 200mA                              |  |
|                                     | Tube voltage   | 40-125kV                           |  |
|                                     | MAS  | 0.4-360mAs                         |  |
| Exposure time                       | 0.0143S-2.4S   |                                    |  |
| 2.Digital image system              | Wireless Digital detector (France Thales)                        | Detector                           | Amorphous silicon detector   |
|                                     |  | scintillator                       | cesium iodide  |
|                                     |  | View                               | 14"×17"  |
|                                     |  | Pixel                              | 3000×2400  |
|                                     |  | Max spatial resolution             | 3.5Lp/mm   |
|                                     |  | Pixel size                         | 144μm  |
|                                     |  | Output gray-scale                  | 16bits   |
|                                     |  | DQE                                | 75%  |
|                                     | Digital Workstation  | The time to display the full image | 10s  |
|                                     |  | Image storage capacity             | 2000 images  |
|                                     |  | Acquisition module                 | Gigabit nets collection  |
|                                     |  | Image Processing model             | Built-in context vision Go view XR2 Enhance module, parameters choose according to particular part   |
|                                     |  | Image Post processing              | mirror the image left and right<br>mirror the image up and down, move image.,rotate image 90° anticlockwise./clockwise. restore the image to original state,display the image in complementary color.,adjust window width and window level of image.,select region of interest of image.,zoom in/out image., magnifying image,etc. |
|                                     |  | Image information management       | Dicom Storage<br>Dicom Print<br>Dicom Transmission   |
| 3.Physical construction performance | Distance from floor to focus                                     | Max:193cm; Min:73cm                |  |
|                                     | Distance from focus to pillar                                    | Max:122cm; Min:72cm                |  |
|                                     | X-ray Tube components can rotate around the telescopic boom axis | ±90°                               |  |
|                                     | Collimator rotate around vertical axis                           | ±90°                               |  |
|                                     | Rotation range of pillar   | 0°~360°                            |  |
| Power supply                        |  | 220V±10% 50/60Hz                   |  |

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### **Standard configuration**

|   |       |
|---|-------|
| 1. High Frequency and high voltage combined generator | 1 Set |
| 2. Flat panel detector                                | 1 Set |
| 3. Pillar- type mobile Frame                          | 1 Set |
| 4. Rotary collimator                                  | 1 pcs |
| 5. Motorized driven device                            | 1 set |
| 6. Wire exposure hand switch                          | 1 pcs |
| 7. Wireless control exposer                           | 1 set |

### **VII. After Sale Service.**

We will supply the good service according to the ISO9001 quality system. We have a professional engineers team with many years experience on the X-ray machine installation and maintenance to supply the service with you .