

Z-arm digital x-ray

Country of origin | People's Republic of China

Health problem addressed

It provides state-of-the-art image quality, image post-processing, operator control, dose reporting and auto system check. These features make the system reliable and easy to use while providing high-quality radiographic images in a digital environment.

Product description

This patented digital detector, which captures radiographic images in digital form, is an X-ray generator/power unit. An acquisition and review workstation for image post-processing, short-term storage, and quick in-room parameter setting are included. Images may be transferred manually or automatically via DICOM network for printing, archive and view.

Developer's claims of products benefits

Z-shaped arm positioner allows for faster positioning and better reliability with a built in angle meter. This technology requires a lower patient dosage than other x-ray machines. It also had easy installation and less space requirements than traditional x-ray machines.

Suitability for low-resource settings

The device is specifically designed for low resource settings. It is designed to be rugged: e.g. all mechanical movement are tested for over 200 thousand times to survive for 10 years, severe shipping test to simulate over 1200 miles truck transportation. Smaller size and room requirement. Full functionality and perfect DR image quality. It could get benefit for rural market, which has low resource condition.

Regulatory status

Conforms to the requirements of Medical Devices Regulatory. Also certified ISO 13485&9001

Future work and challenges

Future developments will include continue improving product quality, and looking for more opportunity to reduce product price and contribute to more basic healthcare areas and wish more countries could gain benefit from this innovative technology. The challenge is now to implement these strategies for a lower cost.

Use and maintenance

User: Intended for by physician or technician.

Training: Application engineer of GEHC, for normal DXR, 8 hours of training required. 4 hours training for Z-arm Digital X-ray which is much shorter than other normal DXR product.

Maintenance: Annual maintenance required for proper functionality assurance.

Environment of use

Setting: Intended to be used at all levels of health care facility

Energy requirements: Required 380V of continuous power supply

Software Requirements: Application software is designed base on Linux system by GEHC. Open source, no license fee needed. APP software could provide work list management, simplified auto protocol assistant and patient information management more than 600 User programmable APR which have improvements that make it easier to use by poorly trained technicians

Environment Requirements: +10°C- +35°C humidity range: 30% to 75%.

Facility requirements: Facility must have radiation Isolation capabilities and ability to the system to connect to a laptop or computer. Recommended minimum room area 25m²

Product specifications

Weight (kg): 770

Dimensions: 2400mm x 2000mm x 2300mm

Retail price (USD): 150 000

Other features: The Software can be customized for local use including English and Chinese languages.

Year of commercialization: 2013

Currently sold in: China, Thailand, Myanmar, Malaysia, and Australia

