Using micro dose X-ray transmission imaging technology, threat objects and contrabands hidden inside a human body or under clothes and shoes can be detected efficiently.

State of the art working principle with newest body inspection concept. The inspected person does not have to be moved during an inspection, guaranteeing high image resolution with no distortion. One scan is sufficient for a complete whole-body inspection.

Advanced radiation self-shielding design ensures the footprint of BI2002 is less than 4m², dispensing with other additional radiation protection devices. It can reduce site requirement of the system operations to a minimum and fully guarantee the health of operators.

Adopting X-ray spectrum filtering technology, BI2002 can obtain high-quality images at extra low dose of 1μSv per inspection, which is much lower than the radiation dose of medical chest digital radiograph.

Provide dose adjusting and ROI scanning functions. Operators can set suitable inspection dose according to different figures of inspected people and select necessary regions for concerned inspection areas. It avoids the unnecessary irradiation of inspected people.

Commodious inspection area with scanning range up to 2 metres. Sound and video monitoring facility helps operator to communicate with inspected people efficiently.

Video monitoring and snapshot. The facial features and inspection information of people can be saved and combined with the scanned images if required.

Modular design and construction combined with full built-in diagnostic facility guarantees the efficiency of equipment maintenance.

Introduction

The BI2002 Body Inspection System is manufactured by Nuctech and is designed for whole body inspections. With its modern and ergonomic design for efficient and professional personnel screening, BI2002 possesses the ability to detect drugs, weapons, explosive and other contrabands and threats hidden inside a human body as well as artificial limbs or beneath clothes. With its excellent image quality, high throughput and high reliability, BI2002 is perfectly suitable for personnel inspection at airports, customs, railway stations, mines, prisons and police, etc.
## Technical Data

### General Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scanning Area</td>
<td>2000mm (H) x 800 (W)</td>
</tr>
<tr>
<td>Wire Resolution</td>
<td>38AWG (Φ 0.1mm)</td>
</tr>
<tr>
<td>Spatial Resolution</td>
<td>1mm line pare</td>
</tr>
<tr>
<td>Monitor</td>
<td>24” colour LCD monitor / high resolution of 1920 x 1200</td>
</tr>
</tbody>
</table>

### System Function

#### Image Processing Tools
- General enhancement, Detail enhancement, Quasi-3D, Negative, ROI enhancement, Gray stretching and Pseudo colour, etc

#### Image Zoom
- Selectable image zoom region, up to 32 times enlargement

#### Image Management
- Scan image can be auto-saved and be converted to general image format, e.g. bmp, jpeg, tiff, etc

#### ROI Scan
- Free selection a region of interest to be scanned for concerned inspection area

#### User Management
- User classification, User adding and deleting, User privilege customisation

#### Assistant Management
- Data/time display, Inspection counter, System-on timers, X-ray on timers, Operation log, Built-in diagnostic facility

#### Options
- Video monitoring and snapshot, Suspects’ information management, Video recording system

### Radiation Safety

- **Dose per Inspection**: Less than 1μSv
- **X-ray Leakage**: Less than 1μSv/hr (5cm from the housing), complies with all international health and safety standards

### Installation Data

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td>2400mm (L) X 1600mm (W) X 2400mm (H)</td>
</tr>
<tr>
<td>Weight</td>
<td>1300kg, including radiation self-protection devices</td>
</tr>
<tr>
<td>Operating Temperature/Humidity</td>
<td>0°C ~ +40°C / 5% ~ 95% (non-condensing)</td>
</tr>
<tr>
<td>Storage Temperature/Humidity</td>
<td>-20°C ~ +60°C / 5% ~ 95% (non-condensing)</td>
</tr>
<tr>
<td>Power Supply</td>
<td>220VAC/110VAC (-15%~+10%), 50 Hz/60Hz±3Hz</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>3kVA</td>
</tr>
</tbody>
</table>

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Note: Image performance specifications are based on test piece complying with GB 15208.2-2006