4 inch / 2 inch DUAL MODE
X-RAY IMAGE INTENSIFIER (X-RAY I.I.)
V10905P

FEATURES

- Suitable for high magnification (2 inch mode)
- High resolution, high contrast
- Low distortion
- Attachable with various cameras (Analog, Digital etc.)

APPLICATIONS

- Non-destructive inspection
- Industrial X-ray CT
- In-line X-ray inspection

[Applicable Samples]
- Electronic components
- Plastic components
- Foods
- Printed circuit boards
- Metal components
- Beverages
- Medicines & drugs

Lithium ion battery (4 inch mode)

<table>
<thead>
<tr>
<th>X-ray Source</th>
<th>Sealed Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-ray Tube Voltage (kV)</td>
<td>90</td>
</tr>
<tr>
<td>X-ray Tube Current (µA)</td>
<td>100</td>
</tr>
<tr>
<td>Geometric Magnification</td>
<td>×4.5</td>
</tr>
<tr>
<td>Camera</td>
<td>1.45 megapixel digital CCD</td>
</tr>
<tr>
<td>Number of Multiplication Frames</td>
<td>100 (4.2 s)</td>
</tr>
</tbody>
</table>
**SPECIFICATIONS**

### X-ray I.I.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description / Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Window Material (Thickness)</td>
<td>Aluminum (1.0.5 mm)</td>
<td>—</td>
</tr>
<tr>
<td>Input Phosphor Material</td>
<td>CsI</td>
<td>—</td>
</tr>
<tr>
<td>Output Phosphor Material</td>
<td>P43 or equivalent</td>
<td>—</td>
</tr>
<tr>
<td>Input Surface Field-of-view Size</td>
<td>4 inch mode 99</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>2 inch mode 50</td>
<td>mm</td>
</tr>
<tr>
<td>Output Image Size</td>
<td>20</td>
<td>mm</td>
</tr>
<tr>
<td>Resolution (on Input Surface) (Typ.)</td>
<td>4 inch mode 90</td>
<td>Lp/cm</td>
</tr>
<tr>
<td></td>
<td>2 inch mode 110</td>
<td>Lp/cm</td>
</tr>
<tr>
<td>Conversion Factor</td>
<td>4.0</td>
<td>cd/m²/µGy/s</td>
</tr>
<tr>
<td>Shading (Min.)</td>
<td>14</td>
<td>—</td>
</tr>
<tr>
<td>Contrast Ratio</td>
<td>60</td>
<td>%</td>
</tr>
<tr>
<td>Operating Ambient Temperature</td>
<td>+10 to +40</td>
<td>ºC</td>
</tr>
<tr>
<td>Storage Temperature</td>
<td>-10 to +45</td>
<td>ºC</td>
</tr>
<tr>
<td>Operating and Storage Humidity</td>
<td>Below 85 % (no condensation)</td>
<td>—</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 7.7</td>
<td>kg</td>
</tr>
</tbody>
</table>

### Power Supply

<table>
<thead>
<tr>
<th>Parameters</th>
<th>Description / Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input Voltage (AC)</td>
<td>100 to 240</td>
<td>V</td>
</tr>
<tr>
<td>Output Voltage (DC)</td>
<td>24</td>
<td>V</td>
</tr>
<tr>
<td>Power Consumption</td>
<td>30</td>
<td>VA</td>
</tr>
<tr>
<td>Weight</td>
<td>Approx. 0.5</td>
<td>kg</td>
</tr>
</tbody>
</table>

**IMAGING EXAMPLES**

- **BGA (4 inch mode)**

- **(2 inch mode)**

- **LED (2 inch mode)**

- **Bonding wire (2 inch mode)**
## RELATED PRODUCTS (X-ray image intensifier camera units)

### C7876 (4-inch beryllium input window)

The C7876 is the ideal choice for non-destructive inspection of light-element materials in the low-energy X-ray region and for radiation imaging. The image intensifier input window utilizes beryllium instead of aluminum (Al) which is mostly used. Using a beryllium window drastically improves X-ray transmittance in the low-energy X-ray region for better imaging.

The internal structure of materials like thin plastic and aluminum can now be seen in real-time with a high contrast that was impossible up till now. Aluminum (Al) input windows are also available.

### X-RAY IMAGE INTENSIFIER DIGITAL CAMERA UNIT C7336-05/-52

The C7336 series consist of a high resolution, high contrast 4-inch X-ray image intensifier (X-ray I.I.) and a 2.8 megapixel CMOS image sensor. The X-ray I.I. used has a fixed field-of-view of 100 mm diameter or a 4 inches/2 inches adjustable field-of-view and an input window made of thin aluminum which is excellent in X-ray transmission and causes less scattering of X-rays. These features allow real-time detection at X-ray energy levels from about 20 keV.

The captured images can be transferred to PC directly by interface of IEEE1394b.