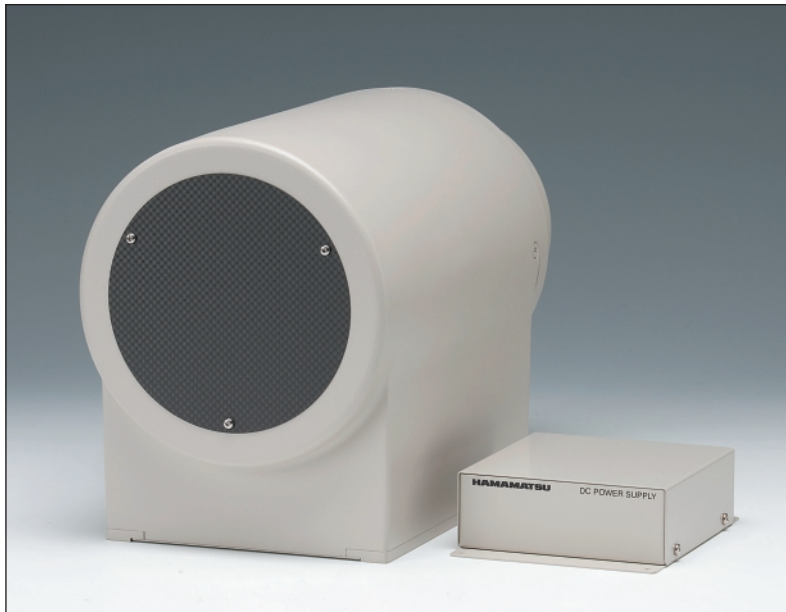


X-RAY IMAGING

X-RAY I.I. DIGITAL CAMERA UNIT SERIES

C7336-05/-52



OVERVIEW

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.

FEATURES

- Digital output
- High resolution, high contrast
- High-speed readout
- Low noise
- Low distortion

APPLICATIONS

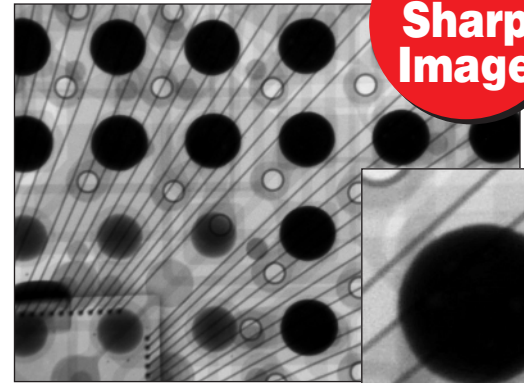
- X-ray imaging equipment
- Industrial X-ray CT scanner
- In-line X-ray inspection system

[Suitable samples]

- Electronic parts
- Metallic parts
- Beverage products
- Printed circuit boards
- Food products
- Pharmaceuticals
- Resin parts

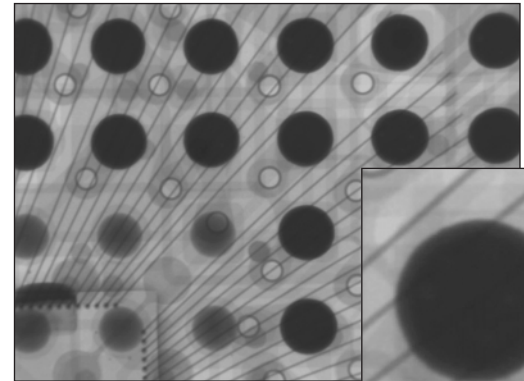
■ BGA

● Digital type (C7336-05)



X-ray tube voltage: 80 kV

● Analog type



X-ray tube voltage: 80 kV

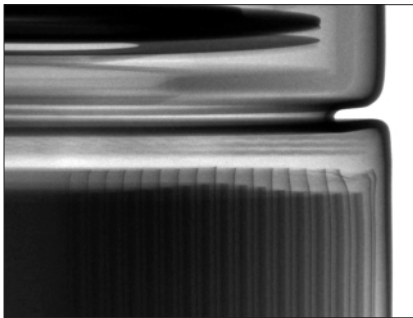
SPECIFICATIONS

Parameter		C7336-05		C7336-52		Unit
Input Window Material / Thickness		Aluminum / 0.5 mm				—
Input Phosphor		CsI				—
Output Phosphor		P43				—
Imaging Area (H × V) (on Input Surface) Typ.		74 × 56		4-inch mode	73 × 55	mm
				2-inch mode	37 × 28	
Resolution (on Input Surface) Typ.		76		4-inch mode	76	Lp/cm
				2-inch mode	100	
Digital camera section	Imaging Device	Scientific CMOS image sensor FL-280				—
	Number of Effective Pixels (H × V)	1920 × 1440				—
	Pixel Size (H × V)	3.63 × 3.63				μm
	Frame Rate(Signal Output)	30(12)	45(8)	30(12)	45(8)	frames/s(bit)
	Power Consumption	IEEE 1394b power supply / DC8 V to 30 V				—
Interface		IEEE 1394b bus × 2 cable				—
Camera Connector		9-pin IEEE 1394b connector				—
Input Voltage		AC100 V to 240 V (50 Hz / 60 Hz)				—
Power Consumption		10				VA
Operating Ambient Temperature		+10 to +40				°C
Storage Temperature		-10 to +45				°C
Operating and Storage Humidity		Below 70 % (no condensation)				—
Weight	Head	Approx. 8		Approx. 9		kg
	DC24 V Power Supply	Approx. 0.5				kg

IMAGING EXAMPLES

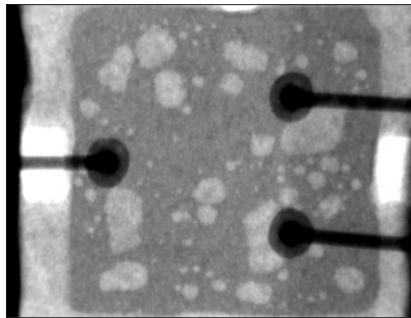
■ Lithium ion battery

X-ray tube voltage: 100 kV

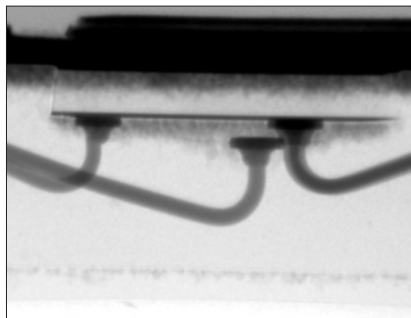


■ LED

X-ray tube voltage: 90 kV



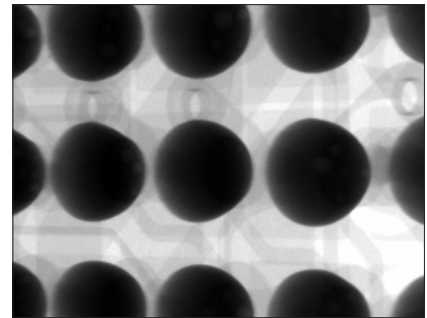
▲Top view



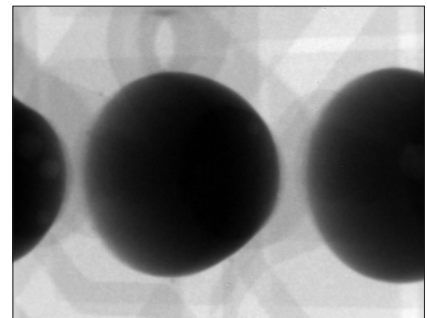
▲Side view

■ BGA

X-ray tube voltage: 130 kV



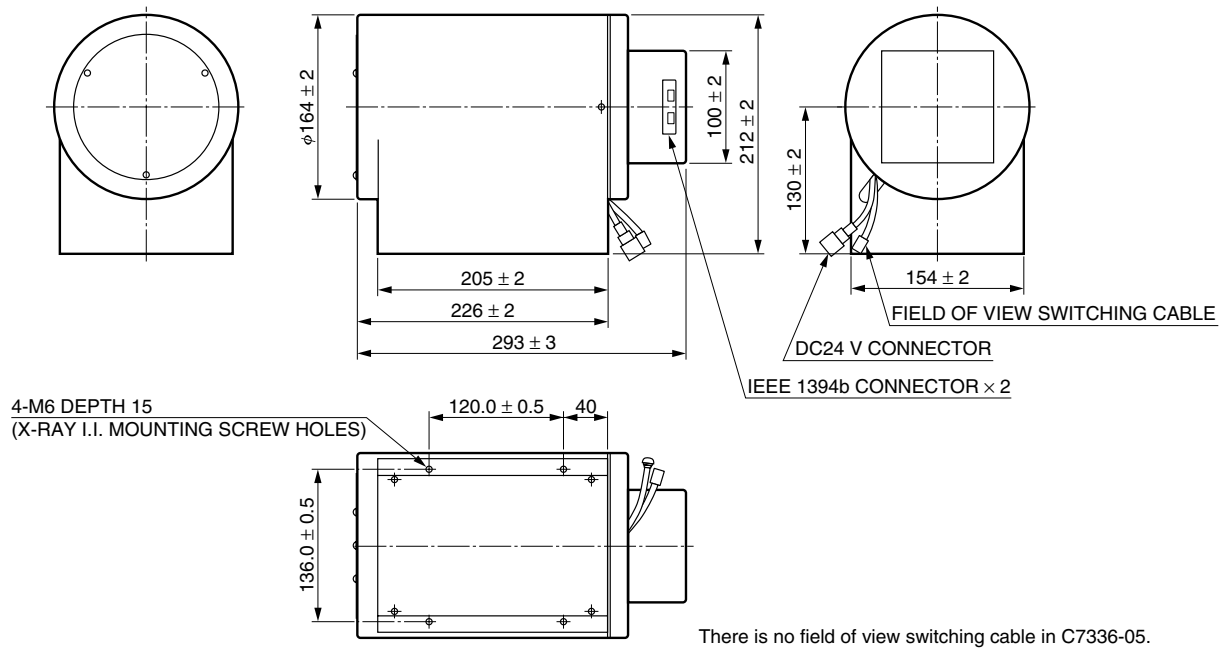
▲4-inch mode



▲2-inch mode

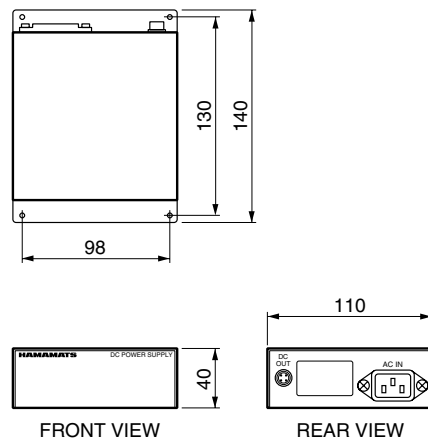
DIMENSIONAL OUTLINES (Unit: mm)

Head



TXPRA0010EC

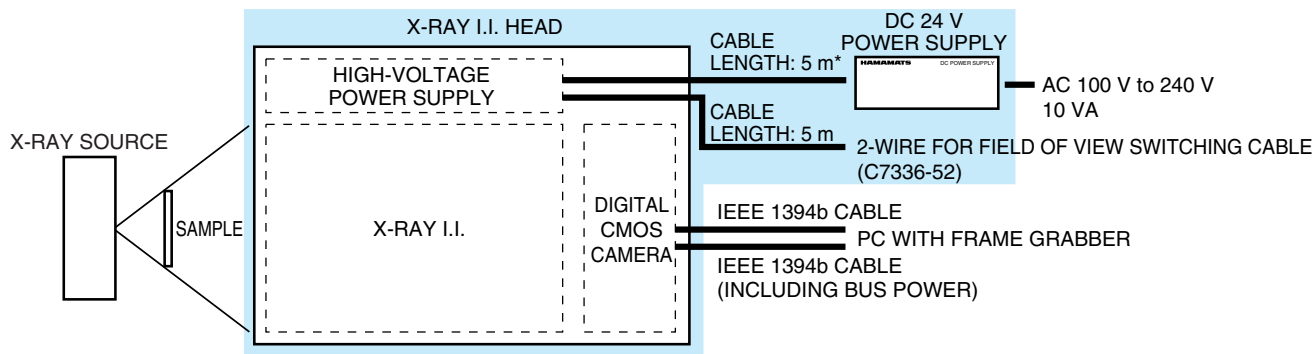
24 V DC Power Supply



TXPRA0020EC

CONFIGURATION

Unit Configuration: **X-ray I.I. Head** + **DC 24 V Power Supply for X-ray I.I.**



*10 m cable is also available.

CONFIGURATION

TXPRC0006ED

RELATED PRODUCTS (Analog type X-ray I.I. camera unit)

C7336-50 (4-inch / 2-inch dual mode type capable of high magnification)

The C7336-50 uses a variable field of view type X-ray image intensifier that captures high contrast X-ray images and displays them in real time at high magnification. In 2-inch mode the C7336-50 captures images that are magnified twice inside the X-ray I.I. tube, making this camera ideal for inspecting electronic components and printed circuit boards whose structures and patterns will become ever tinier and more complex in the near future.

C7876 (4-inch beryllium input window type for low energy imaging)

The C7876 uses beryllium (Be) for the input window of the X-ray image intensifier to give drastically improved X-ray transmittance in the low energy X-ray range. This window makes the C7876 ideal for non-destructive inspection of light-element materials in the low energy X-ray region and also for synchrotron radiation imaging. Internal structures of thin plastics and aluminum products that have long been difficult to obtain a high-contrast X-ray image can now be viewed at high contrast in real time.



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