

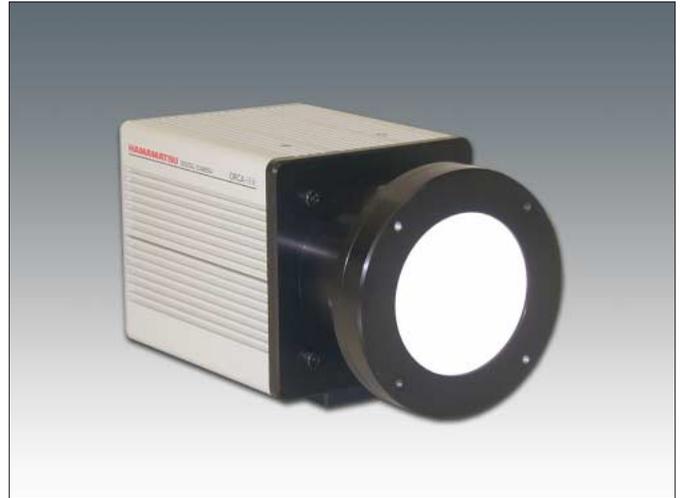
X-ray Camera with Fiber Optics Window

High Dynamic Range type



▲ 3:1 ratio-fiber tapered type for a CCD with 512 × 512 pixels.

High Resolution (10 M pixels) type



▲ 2:1 ratio-fiber tapered type for a CCD with 4000 × 2024 pixels.

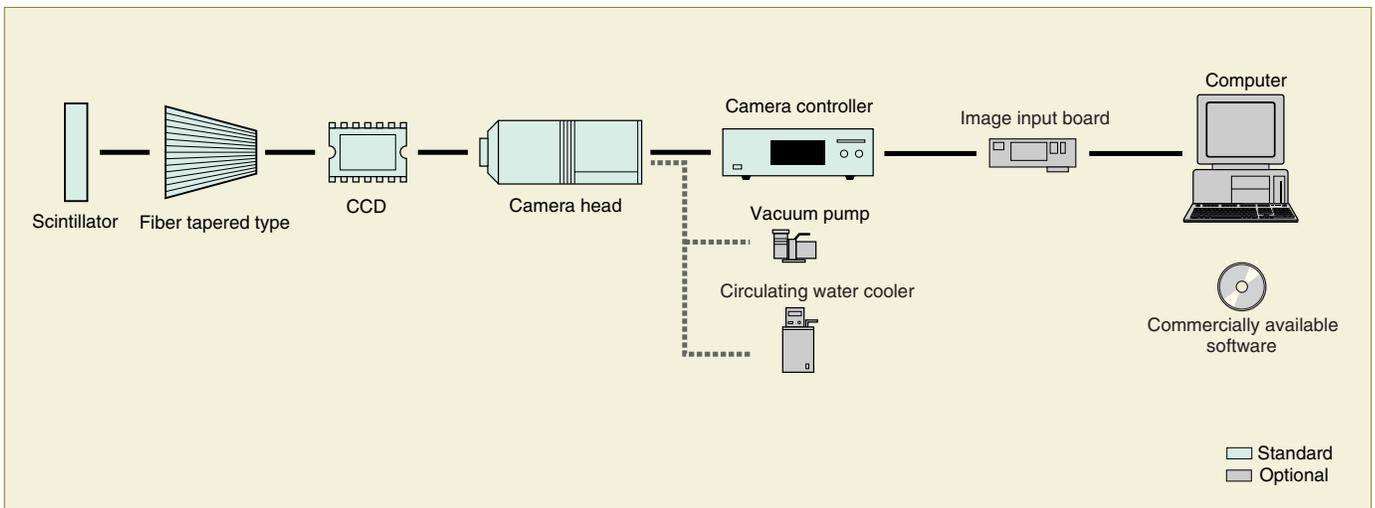
This camera has fiber optics window which enables high optical coupling efficiency. The fiber optics is directly coupled to CCD without using conventional lenses. Scintillator such P43 is coated on fiber input and it convert X-ray image to visible image. Various scintillator type is available.

★ Please consult with HAMAMATSU for other camera selection.

APPLICATION

- X-ray diffraction/scattering
- X-ray/electron beam detection using scintillator
- Micro-CT

SYSTEM CONFIGURATION



SPECIFICATIONS

	High Dynamic Range type	High Resolution (10 M pixels) type
Effective no. of pixels	512 × 512	4000 × 2624
Pixel size	24 μm × 24 μm	5.9 μm × 5.9 μm
Saturation charge	300 000 electrons	13 000 electrons
Cooling method	Water cooled	Air cooled
Cooling temperature	− 30 °C	+ 5 °C
Dark current	3.0 electrons/pixel/s	0.5 electrons/pixel/s
Readout noise	15 electrons	15 electrons to 20 electrons
A/D converter	16 bit	12 bit
Effective fiber input surface size	36 mm × 36 mm	23.6 mm × 15.5 mm
Taper ratio	3:1	2:1
Fiber diameter	φ 10 μm	φ 8 μm



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